

DOCUMENT RESUME

ED 156 521

SE 024 556

AUTHOR Squire, James L., Jr.; Smith, Susan E.  
 TITLE Anglers' Guide to the United States Pacific Coast: Marine Fish, Fishing Grounds & Facilities.  
 INSTITUTION National Oceanic and Atmospheric Administration (DOC), Rockville, Md. National Marine Fisheries Service.  
 PUB DATE Nov 77  
 NOTE 142p.; Contains occasional small print and shaded charts and maps which may not reproduce well  
 AVAILABLE FROM Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (Stock Number 003-020-00113-1; \$7.50)

EDRS PRICE MF-\$0.83 HC-\$7.35 Plus Postage.  
 DESCRIPTORS Biological Sciences; Charts; \*Fisheries; \*Maps; \*Marine Biology; Natural Resources; \*Oceanology; \*Recreation; \*Recreational Facilities; Resource Guides  
 IDENTIFIERS \*Pacific Ocean; United States.

ABSTRACT

The purpose of this guide is to provide a general source of information on areas of the Pacific coast that are more frequently fished and the species of fish that are commonly taken. The guide covers the marine and estuarine waters along the coasts of California, Oregon, Washington, Alaska, Hawaii, American Samoa, and Guam. It is arranged in five sections according to similarities in their fisheries. Each section contains a series of coastline fishing charts that outline offshore, bay, and shoreline fishing grounds and give locations of marine sport fishing facilities such as sport fishing boats, boat launching sites, fishing piers, skiff rentals, and jetty fishing sites. Included in the guide are forty charts of fishing areas and glossary of 237 of the most common marine game fishes. (Author/BB)

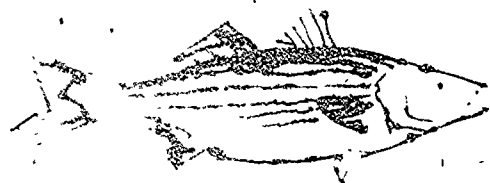
\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED156521

SE

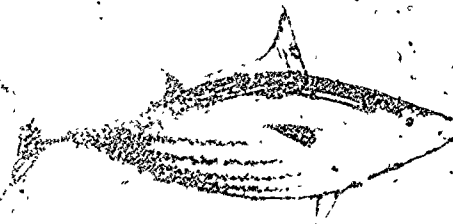
U.S. DEPARTMENT OF HEALTH  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.



# Anglers' Guide

## TO THE UNITED STATES PACIFIC COAST



124 556



**UNITED STATES DEPARTMENT OF COMMERCE**

Juanita M. Kreps, Secretary.

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION**

Richard A. Frank, Administrator

**NATIONAL MARINE FISHERIES SERVICE**

Robert W. Schoning, Director



SEATTLE, WA  
November, 1977

Anglers' Guide  
to the  
United States Pacific Coast

MARINE FISH, FISHING GROUNDS & FACILITIES

by  
JAMES L. SQUIRE, JR. AND SUSAN E. SMITH



The National Marine Fisheries Service (NMFS) does not approve, recommend or endorse any proprietary product or proprietary material mentioned in this publication. No reference shall be made to NMFS, or to this publication furnished by NMFS, in any advertising or sales promotion which would indicate or imply that NMFS approves, recommends or endorses any proprietary product or proprietary material mentioned herein, or which has as its purpose an intent to cause directly or indirectly the advertised product to be used or purchased because of this NMFS publication.

# Contents

	Introduction	1
I	Southern California	5
II	Northern California	23
III	Oregon & Washington	45
IV	Alaska	75
V	Pacific Islands	85
	Marine Game Fishes	101
	Marine Game Fishes of the U.S. West Coast	102
	Marine Game Fishes of the Pacific Islands	118
	Glossary of Terms	130
	Index to Common Names of Fishes	132
	Acknowledgments	137
	References	138

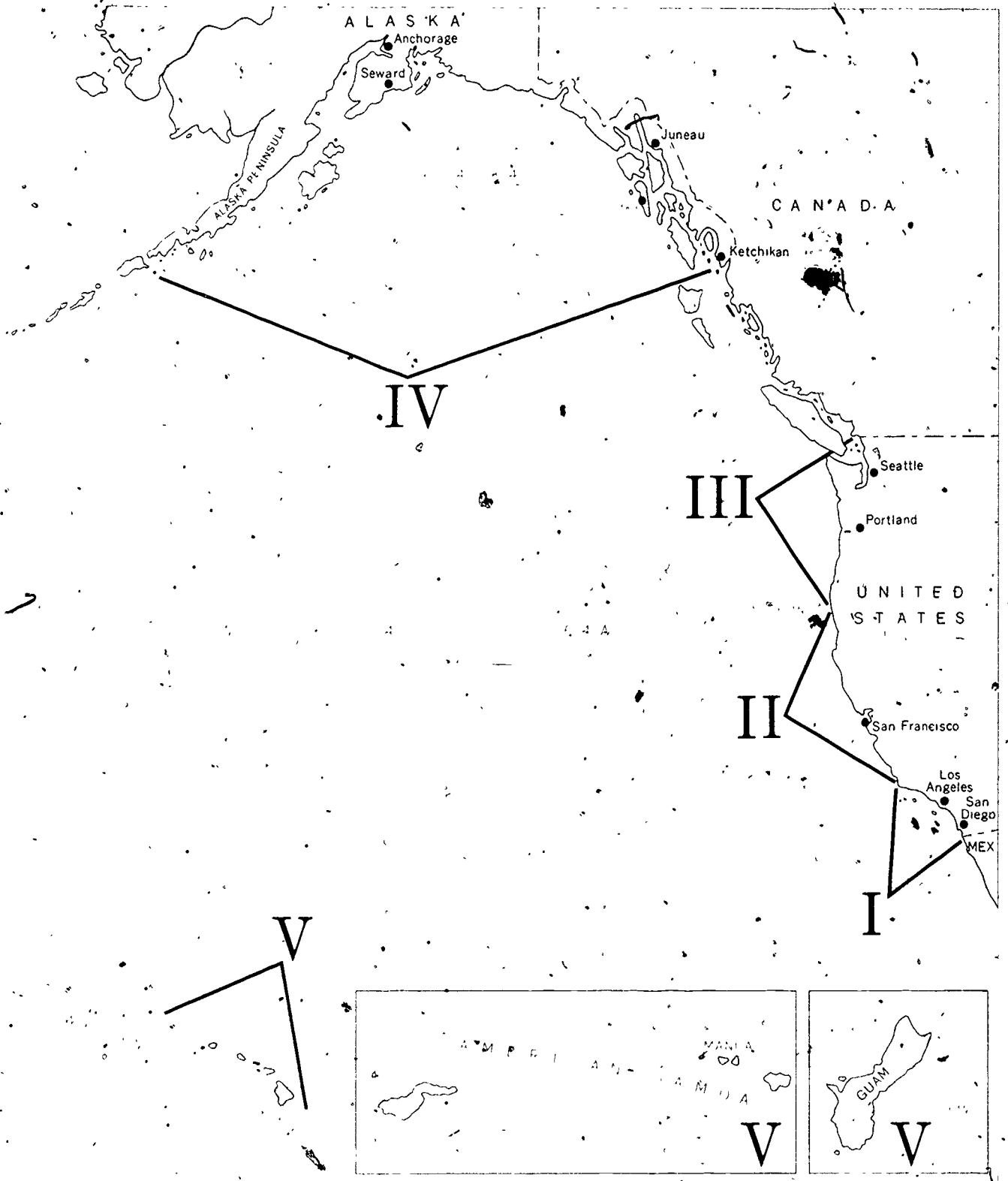


Figure 1—Coastal areas covered by Anglers' Guide showing the five geographical sections

## Introduction

While there are millions of individual fish in the ocean and bays, the obvious problem facing the marine sport angler is *how and where and when* to catch them. Anglers who have a "local knowledge" of the seasons and locations of good fishing areas usually are the more successful ones, but most realize that pinpointing the exact location, season, and time for catching a certain species of fish is impossible. This is due to seasonal variation in the geographical distribution and quantity of stocks of fish available, which, in turn, is a result of changes in the total marine environment (temperature, salinity, food, etc.), and the biological success of each species in the competition for survival. Even so, certain species usually are taken in generally well defined fishing areas; some may be taken only during a certain seasonal period while others may be present throughout the year.

The purpose of this Guide is to provide a general source of information on those areas that are more frequently fished and the species of fish that are commonly taken.

The geographical scope of this Guide covers the marine and estuarine waters along the coasts of California, Oregon, Washington, Alaska, Hawaii, American Samoa, and Guam. These have been arranged in five sections according to similarities in their fisheries (Figure 1):

- Section I—Southern California
- Section II—Northern California
- Section III—Oregon and Washington
- Section IV—Alaska
- Section V—Pacific Islands

Each of the five sections contains a series of coastline fishing charts that outline offshore, bay, and shoreline fishing grounds and give locations of marine sport fishing facilities (all are subject to change from year to year) such as sport fishing boats (party or charter), boat launching sites, fishing piers, skiff rentals, and jetty fishing sites. These facilities are designated by numbers on the chart which correspond to a table on the opposing page. Also accompanying each chart is a general description of the chart area, and notes that supplement the chart information concerning some of the common game fishes and their availability to the angler.

It is important to realize that marine game fishing is the only segment



of the U.S. fisheries that has grown rapidly during the past 15 years. In 1960 the first national marine angling survey was made. It reported an estimated 1.4 million marine anglers along the west coast from the Mexican border to Alaska catching over 79 million fish. By 1965 the number of marine anglers had grown to almost 2 million (1,977,100) and the catch to over 87 million fish. The 1970 survey showed over 2 million (2,205,000) west coast marine anglers who caught over 61 million fish. Thus, during the past decade, the number of west coast anglers has increased 64%; however, the number of fish caught as reflected in the 1970 survey has not kept pace with the increased angling pressure. This increase in angling pressure is to be found throughout the central and eastern Pacific, with a 34% increase in southern California, which has 40% of all marine angling along the west coast. A 47% increase was found from central California northward into Alaska, an area which accounts for 60% of all west coast fishing.

Effective long-range planning for marine game fish conservation programs and associated research activities must be based on a thorough knowledge of the scope and magnitude of the recreational fishery resources; seasonal distribution of fish; the operating sport fishery and its fishing locations; the location, type, and number of fishing facilities available; and information on the values that anglers attach to the various facets of the sport. The task of obtaining such knowledge is a formidable one. We hope that this Guide, in bringing together many fragments of information into a single source book, will prove useful to agencies involved in this task, and at the same time provide the public with a convenient means of utilizing the existing recreational fishing facilities and learning more about the available opportunities for marine game fishing.

#### TYPES OF FISHING

Pacific marine game fishing is centered near the coastal population centers. An abundance of desirable game fish is usually available along all coasts in the ocean, bays, and brackish-water areas, depending on the place and season of the year. Over 300 species are commonly taken by marine anglers who fish the west coast and Pacific Islands; in addition, they incidentally catch many other species.

The sport angler has five types of "fishing"—pier fishing, rock or jetty fishing, surf or bank fishing, private boat fishing, and sport boat (party or charter boat) fishing. The type of marine environment fished usually dictates what species are most likely to be caught. The marine angler must take this into consideration by use of suitable equipment and careful selection of bait or lure to achieve the greatest chance for success.

A diversity of fishing gear is used by the Pacific angler, with conventional hook and line being the most common method of fishing in all areas. In addition, "A"-frame beach seines are used for smelt; poke-poles for fishing blenny eels, cabezon, and octopus in rocky areas; and traps for fish, crab, and shrimp. Nets for sandy-shore and reef species are commonly used in the tropical Pacific. Bare hands are used for grunion in southern California.

Other catching methods for marine life are hunting and spearing of by divers, "picking" abalones along the shore at low tide, and spearing of rock scallops, abalones, lobsters, crabs, and sea urchins by

divers. There is also fishing for rock and Dungeness crabs with hoop nets, and digging clams along the shore and in bays. Fishing for shellfish and other invertebrates, however, is not considered in any detail in this Anglers' Guide, which focuses mainly on true fishes.

#### CHOOSING A FISHING AREA

If you are unfamiliar with an area, there are a few basic criteria that should be used in selecting a place to try your luck. Knowledge of hydrographic conditions (tidal flow, bottom types, and depths) is most important whether you are fishing in the open ocean, nearshore, surf zone, tidal inlets, bays, or in the intertidal portion of a river. On the open ocean, sea state is another important factor in fishing. Many pelagic species that frequent the surface are usually found at greater depths when the surface is rough. Weather is a particularly important factor, especially in the ocean. Where weather is more favorable for offshore fishing, we usually find a greater number of offshore anglers.

In fishing offshore for salmon, albacore, yellowfin and bluefin tunas, dolphinfish, swordfish, and marlin, water color and temperature are important factors. Changes in these factors are good indicators of changes in water mass, and it is in the vicinity of these changes that concentrations of the larger predators are often found. Along edges of changes in water temperature and color sometimes can be found higher concentrations of forage animals—plankton and small fish. These smaller animals attract the larger predator fish, making an area with a temperature or color discontinuity a favorable place to explore. Locations near schools of forage fish often have good fishing potential. These frequently are found by observing seabirds swooping down on forage fish driven to the surface by larger predator fish. Sometimes yellowfin tuna and marlin are found around schools of porpoise, and trolling nearby may be productive. Tidal rips in bays and estuaries are other likely spots for fish. Movement of the different water masses is evidenced usually by surface rips and many times by color changes.

Along shore, water depth frequently can be determined by color, the darker blue color indicating a deeper area. These deep spots or holes, drop offs, and open channels are all good spots for surf or shore anglers to investigate. In fishing the surf, wave action is most important in evaluating a good fishing spot; as a wave proceeds toward the shore, it will usually crest and break over a shallow spot, either the sand beach itself or an offshore bar. If the wave breaks some distance from shore over a submerged sandbar and the water becomes smooth again before slightly breaking on the beach, this indicates a depression or hole on the inside of the bar—a likely spot for surf fishes. If rocky outcroppings are observed immediately offshore along a sandy beach, casting to a point close to the rock can be productive since larger fish tend to congregate around such locations. The same is true for offshore reefs, kelp beds, or wrecks. These habitats provide shelter or protection as well as a ready food supply for game fishes, which eat the abundant small organisms attached to the solid substrate and the baitfish frequently found nearby.

Rocky shores usually are productive fishing areas; however, many anglers are reluctant to fish these places because of the possibility of losing

their terminal gear of sinkers and hooks. Careful selection of a fishing spot off a rocky point or over sharp drop offs to deep water which may have a smooth bottom could produce results. Although a cautious approach should be taken in testing such an area, after discovering good fishing in a rocky location you may have found your own exclusive fishing spot.

Fishing results in bays are highly variable. Usually the best spots are near the entrances, in or adjacent to the main tidal channels. Fishing in the entrance from a boat can be productive either by trolling (usually against the tide), casting with the tide, or drift fishing with the tide. Tidal fluctuations in bays markedly affect fishing in the nearshore area or over the tidal flats. Water current velocities and patterns created by tidal flow in turn affect the movement and availability of food material for all bay fishes. Many shallow areas are evident, and some are exposed at extreme minus tides. When the tide is high these areas are covered, and predator fish can move over the tidal flats to feed on small invertebrates that live on the bottom. On an ebbing or outgoing tide, good places for fishing are usually found in channels or about the mouths of tidal sloughs that drain the tide flats, or at any narrow channel or creek mouth at the point it empties into a bay.

In bays as well as in the ocean, logical spots for fishing in your area may be found on the marine nautical charts issued by the National Ocean Survey. These navigational charts show channels and depressions and sometimes show rough or rocky-reef areas. A good marine angler can determine areas that may have good fishing potential by consulting these charts, and if you plan to fish from your own boat, knowledge of the bottom topography is essential for normal navigation.

Another easy method of gaining knowledge of the better fishing sites is to follow those sport anglers who know where to fish. Good fishing areas attract fishing boats and concentrations of anglers. The activities of commercial sport fishing boats are among the most reliable indicators of good fishing spots. Professional sport fishing boat skippers keep in constant contact by radio with other boats concerning fishing conditions, and they are the experts in the offshore fishing business. For this reason a great deal of knowledge about fishing techniques for different species and fishing locations can be obtained by fishing from a commercial sport fishing boat. Records indicate that in most cases catches are above average for these boats, and their equipment will get you to the fishing grounds and back with speed and safety. Once the fishing grounds are reached, all necessary bait (live bait in many cases), tackle, and instruction on equipment and techniques are available to you.

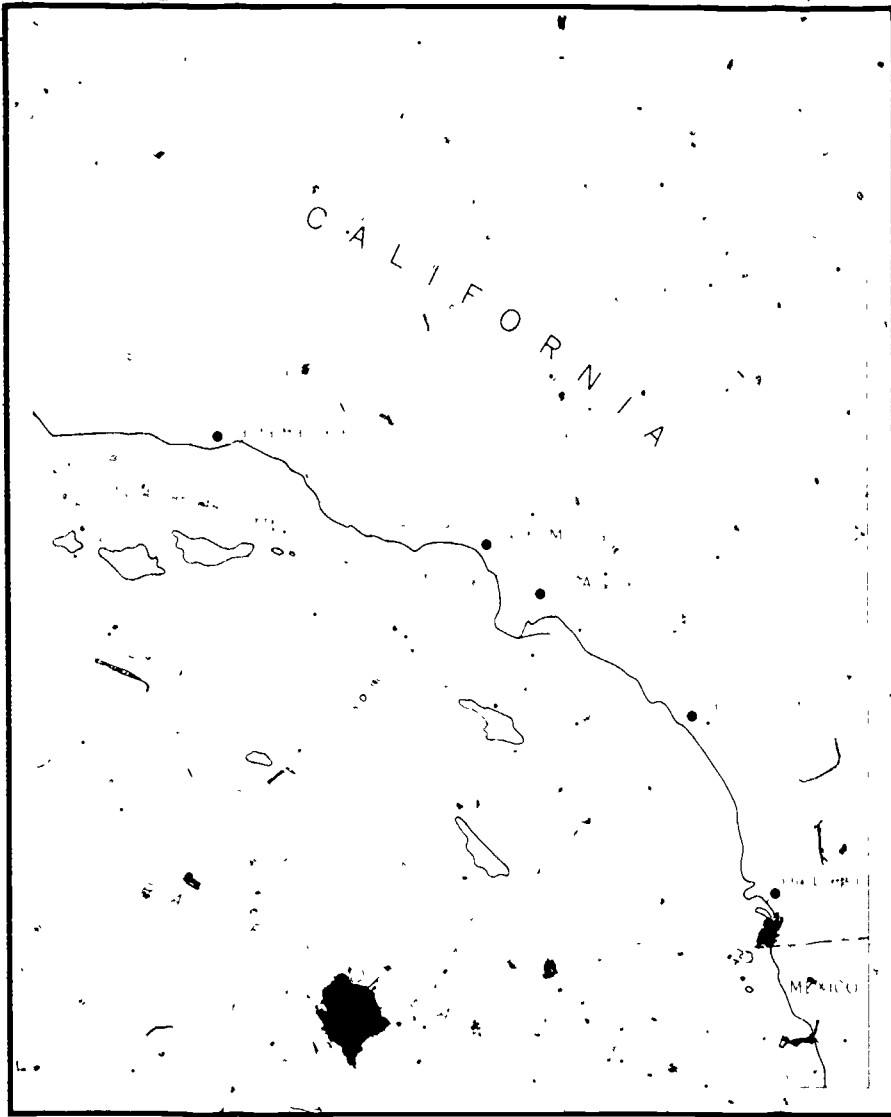
Finally, for more specific knowledge about fishing in a particular area, one of the most logical places is the local bait and tackle store or sporting goods supplier. Local fish and game wardens usually are most helpful, and of any group of individuals, they are probably most aware of seasonal fishing opportunities. Above all, before fishing any area always be sure to consult your State fish and game department for local regulations concerning current laws on type of fishing gear allowed, seasons, and size and bag limits.

JAMES L. SQUIRE, JR.

NMFS, Southwest Fisheries Center, La Jolla Laboratory, La Jolla, Calif.

SUSAN E. SMITH

NMFS, Southwest Fisheries Center, Tiburon Laboratory, Tiburon, Calif.



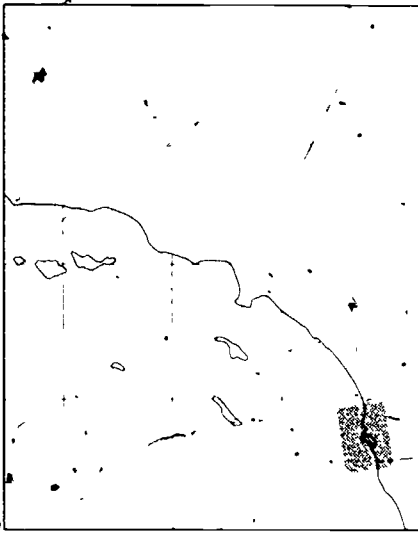
## SOUTHERN CALIFORNIA

The southern California coast from Point Conception southwest to Mexico has a distinct geographic and oceanographic character compared to coastal areas to the north and south. It is sometimes called the southern California "Bight," referring to the inward curve of the coastline in a near east-west direction for over 100 miles south of Point Conception. Within this "Bight" is a generally counterclockwise current flow or gyre centered in the Gulf of Catalina, an ocean area southwest of Catalina Island. About the center of the current gyre, sea surface temperatures tend to be higher than temperatures found to the north or south of the Gulf of Catalina. During midsummer, surface temperatures may reach 70°F or more near the center of the gyre and high surface temperatures are then common from southern California south to the coast of Baja California, Mexico. During this warming period, subtropical species such as striped marlin, swordfish, Pacific bonito, and yellowtail [*Seriola dorsalis*] migrate into the Gulf of Catalina. On rare occasions, during abnormally warm years, tropical species such as yellowfin tuna, dolphinfish, and sailfish also are known to migrate north into southern California waters.

Weather off southern California is generally mild and thus conducive to marine sport fishing. Swell heights are low and winds are generally light and from the west. However,

outside the offshore islands from San Clemente to San Miguel, during the summer one encounters large swells and high seas caused by prevailing strong northwesterly winds. During winter and early spring the southern extensions of storm fronts, having their centers farther north, sometimes enter the area bringing rain and wind. Rainfall is low along the coast, averaging but 10 to 15 inches per year, and wind speeds during winter and spring storms rarely exceed 30 knots in the nearshore areas. In summer a persistent low stratus cloud layer exists offshore, resulting from warmer moist air flowing from the south and southeast. In late summer the remains of tropical storms sometimes reach the southern California latitudes, though these are rare. One of the more pleasant seasons for fishing is from late fall through early winter, when the air is clear, seas calm, and the persistent summer stratus rarely present.

Catch records indicate that southern California is the center of marine game fishing in the eastern Pacific Ocean, especially when one considers its geographical size and the number of marine anglers in the area. Excellent facilities are available for fishing in bays, along shore, from piers, and over the offshore grounds from modern sport fishing boats. Year-round fishing is possible for many southern California species listed in this Guide.



## San Diego Area

### OFFSHORE FISHING

Within the San Diego region (Chart 1) the major offshore sport fishing grounds are about Mexico's Coronado Islands and near the Point Loma and La Jolla kelp beds. Some of the finest marine angling facilities for fishing in local and distant waters are to be found in San Diego Harbor and Mission Bay. San Diego is the principal port for long-range fishing trips to off the coast of Baja California. It is also one of the major ports for albacore sport fishing from July through October, with most fishing within 40 to 100 miles west and southwest of San Diego. Sometimes in early summer, albacore also will appear near the Coronado Islands. Occasionally, trips by modern well-equipped sport fishing boats are made to San Clemente Island (see Chart 8) for yellowtail and kelp bass and to offshore banks for rockfishes.

Variations in the offshore bottom topography have a pronounced influence on where different species are caught. The coastal shelf off San Diego is widest from Point Loma south to the Coronado Islands, averaging about 20 fathoms in depth. Here the bottom is sand, sand shell, and mud and sand, over which sand bass, white seabass, California halibut, and sizable quantities of forage fish such as the northern anchovy are frequently taken. Though the bottom is generally sandy from the Coronado Islands north, near-shore rocky reefs are to be found off Imperial Beach, Point Loma, and La Jolla.

Off Point Loma the shelf is about 3 miles wide and becomes narrower off La Jolla and to the north; offshore the bottom depth descends to about 600 fathoms. The edge of the shelf is generally the inner limit, of late summer fishing for striped marlin. Excellent

fishing areas for rockfishes also can be found along the shelf edge.

Several submarine canyons cut into the nearshore shelf; the two most prominent are the Coronado Canyon and the La Jolla Canyon. These canyons provide good habitats along their upper edges for rockfishes, sheephead, kelp bass, and broomtail grouper.

The Coronado Islands are the property of Mexico, and a Mexican fishing license must be obtained before fishing about any of the three islands. When fishing from a commercial sport fishing boat, the foreign fishing license fee is usually included in the cost of the trip. These islands constitute the most productive area in southern California for fishing yellowtail, which are taken there during late spring through summer. The north end of the North Coronado Island is excellent for yellowtail fishing, and anglers usually experience a good morning "bite." The "Middle Ground," between North Coronado and Middle Coronado, is also good for yellowtail, and for white seabass in spring. Other game fishes taken by anglers around the Coronado Islands are: Pacific barracuda, Pacific bonito, rockfishes (olive, kelp, and grass), lingcod, ocean whitefish, sculpins, and kelp bass. Pacific barracuda are taken April through October (summer best), and Pacific bonito are caught in summer—the remaining species are taken year-round. Between the Coronado Islands and the mainland coast, fishing is good for white seabass in spring and early summer, when squid are spawning in this area. This is also a good fishing location for California halibut during the spring. North of the Coronado Islands along the edge of the Coronado Submarine Canyon in deep water, bottom anglers catch rockfishes (chilipepper, bocaccio, vermilion, yellowtail, gopher, and canary).

The Point Loma kelp beds and deep water immediately northwest of the Point are good fishing spots for the species shown on the chart. Near-shore, rockfishes (olive, grass, vermilion, and kelp) are commonly taken near the kelp beds; offshore in deeper water, bocaccio, chilipepper, gopher, canary, and greenstriped rockfishes are caught.

Fishing the La Jolla kelp bed has become increasingly popular in recent years. Statistics indicate there are more anglers, catching greater numbers of fish, from this area than from any other location, along the California coast. Off Point La Jolla, in addition to the species listed on the chart, California halibut sometimes are taken on the flats to the north and south of the La Jolla Submarine Canyon.

North of La Jolla begins a near-continuous kelp bed that extends northward along the coast. There is limited amount of fishing off the kelp beds at Del Mar and in adjacent areas

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1	● ●	Imperial Beach
2	●	Chula Vista
3	●	National City
4	●	Glorietta Bay, Coronado
5	● ● ●	Shelter Island
6	● ● ● ●	Mission Bay
7	●	Ocean Beach Pier
8	● ●	Pacific Beach Pier

to the north and south for kelp bass and rockfishes (kelp, olive, grass, and vermilion). Yellowtail and Pacific bonito sometimes are taken in and about these kelp beds.

### BAY AND SHORE FISHING

Several public piers, located in bays or along the open coast, allow the marine anglers to catch resident shore fishes and sometimes migratory species such as Pacific bonito and Pacific barracuda. The outer coast has two public fishing piers. The Ocean Beach public fishing pier is a good place for surfperches (barred, pile, walleye, and kelp), Pacific bonito, Pacific mackerel, white seabass, sharks (sand, brown smoothhound, and leopard), queenfish, jacksmelt, California halibut, and sculpin. To the south, the Imperial Beach fishing pier just north of the Mexican border has, at times, good fishing for pile and rubberlip surfperches in winter and spring, and walleye and shiner surfperches all year. Sharks, rays, white croaker, Pacific sanddab, Pacific bonito, jacksmelt, Pacific barracuda, white seabass (small), cabezon, sculpin, and "rock" crabs are also taken from this pier.

San Diego Bay has some fishing about the municipal piers for sculpins, jacksmelt, pile surfperch, topsmelt, sharks, and rays. The major public sport fishing pier in San Diego Bay is on Shelter Island, near the entrance to the bay. Off the pier and along the rocky shore nearby, anglers catch surfperches (shiner, black, rubberlip,

# CHART 1

- Shorefishing Areas
- Fishing Facilities
- Sportboat Operation
- Kelp
- Depth in Fathoms

TORREY PINES NORTH  
ALONG COAST IN ISOLATED  
KELP BEDS FOR  
KELP BASS  
OPALEYE  
HALIBUT  
SHEEPHEAD  
YELLOWTAIL  
ROCKFISH

ESPECIALLY  
GOOD FOR  
BARRACUDA  
KELP BASS  
BONITO, AND  
YELLOWTAIL

HALIBUT  
ROCKFISH

YELLOWTAIL  
BONITO

LA JOLLA KELP  
BARRACUDA, BONITO,  
KELP BASS, YELLOW-  
TAIL, SHEEPHEAD,  
WHITE CROAKER,  
GIANT SEA BASS,  
WHITE SEABASS,  
LINGCOD, HALF-  
MOON, ROCKFISH,  
SOME TIMES BLUEFIN  
TUNA

CAL. HALIBUT  
WHITE CROAKER  
BONITO

LINGCOD  
ROCKFISH

Pt Loma Kelp  
BONITO, YELLOWTAIL,  
BARRACUDA, KELP  
BASS, SHEEPHEAD,  
SCORPION, LINGCOD,  
HALF MOON, GIANT  
SEA BASS, WHITE  
CROAKER, WHITE  
SEABASS, AND  
ROCKFISH

CAL. HALIBUT  
WHITE CROAKER  
RUBBER LIP PERCH  
WHITE SEABASS

MIDDLEGROUND  
YELLOWTAIL  
BONITO  
BARRACUDA  
WHITE SEABASS

KELP BASS  
BONITO  
BARRACUDA  
WHITE SEABASS  
YELLOWTAIL  
SHEEPHEAD

CAL. HALIBUT  
WHITE SEABASS

YELLOWTAIL

SOUTH KELP  
SAND BASS  
GIANT SEA BASS  
YELLOWTAIL

Solana Beach

Del Mar

TORREY PINES  
ST. RESERVE

La Jolla

Bird Rock

Pacific Beach

Mission Bay

Ocean Beach

Sunset Cliffs

Shelter I. Pier

Coronado

Pt Loma

SAN DIEGO

National City

Chula Vista

Imperial Beach

Imperial Beach Pier

UNITED STATES (CALIFORNIA)  
MEXICO

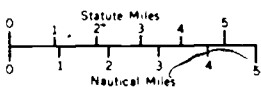
STRIPED MARLIN  
AND SWORDFISH  
AT RADAR BUOY  
ABOUT 12 MILES  
OFF LA JOLLA

SPORTFISHING TRIPS  
TO SAN CLEMENTE  
FOR YELLOWTAIL,  
KELP BASS, ALSO TO  
43 MILE BANK FOR  
ROCKFISH AND  
ALBACORE

ROCKFISH TRIPS TO  
18 FATHOM SPOT  
15 NAUTICAL MILES  
WEST

INTERNATIONAL  
MARITIME BOUNDARY

STRIPED MARLIN CAUGHT  
WEST OF THIS LINE, JULY  
TO NOVEMBER (AUG. SEPT  
BEST) - CENTER CATCH  
DISTRIBUTION FROM SAN  
DIEGO ABOUT 15 MILES  
OFFSHORE



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

and pile), jacksnelt, topmelt, sand bass, sculpin, sharks, rays, Pacific bonito, and California halibut. Anglers fish for the same array of shore species from the south side of Shelter Island and 1 mile east off Harbor Island.

Mission Bay offers excellent pier, shore, or small-boat fishing. Bay fishermen frequently catch yellowfin and spotfin croakers, small Pacific bonito and Pacific barracuda, California halibut, shiner and rubberlip surfperches, topmelt, jacksnelt, spotted sand bass, sharks, and rays.

The open coast offers shore fishing along both rocky and sandy shores; the species of fish caught depends upon which of these two shoreline types is being fished. Some of the better shore fishing areas are near Del Mar and Torrey Pines, and from Coronado to Imperial Beach.

The major sandy-shore fishes are the surfperches, croakers, corbina, and grunion. The barred surfperch is common and comprises about 70% of the shore angler's surfperch catch. It is taken throughout the year, December through March is considered best. Others such as shiner, white, rainbow, rubberlip, and silver surfperches are available all year. The walleye surfperch also is taken most of the year over sandy bottom, as well as around pier pilings and jetties. Catches of California corbina are taken off the sandy shore all year, but are greatest during July through September. Spotfin croaker are taken all year, but summer fishing is best, especially along beaches extending north from Imperial Beach. Yellowfin croaker are caught on some sandy shores during the summer run, but these locations will vary according to movements of the fish. The white croaker or kingfish is taken off most sandy beaches.

Grunion is one of the favorite fishes of the open-coast sandy beach. This small silvery fish enters the surf zone to spawn during periods of high tides in late spring and summer from March to September (grunion may not be taken 31 March through 1 June). They may be captured by hand in such popular fishing areas as La Jolla, Pacific Beach, Mission Beach, Ocean Beach, along the Coronado Strand (Silver Strand), and Imperial Beach. The best time to search for grunion is the second, third, and fourth nights after a full moon and for a 3-hour period after a high tide.

Along rocky portions of the coast at La Jolla, Bird Rock, and Sunset Cliffs and about Point Loma, the species commonly taken are opaleye (best in spring), halfmoon, surfperches (black, shiner, walleye, and pile), rockfishes (kelp, grass, and brown), kelp bass, and occasionally sargo and cabezon. Opaleye, halfmoon, and rockfishes are available to the rocky shore all year.



## 2 Solana Beach to Dana Point

This fishing area (Chart 2), geographically between the population centers of San Diego and Los Angeles, is a growing one for marine sport fishing operations. New facilities such as the extensive small-boat harbor recently developed at Dana Point (Dana Harbor), and the excellent small-boat basin at Oceanside now make many coastal fishing areas accessible to the small-boat angler. About 15 miles of coastline from Oceanside north to near San Mateo Point is the property of the U.S. Marine Corps and is part of the Camp Pendleton complex. Until recently access to this area was very limited; however, in the north a portion of the coast now has been designated a State park (San Onofre Bluffs State Beach) and greater access to the shore is being given the public.

The coastal shelf is very narrow off this section of coast, extending only 2 to 3 miles offshore before reaching a depth of 50 fathoms or more. Sand and gray sand predominate the bottom nearshore, with some rocky areas such as those found north of Oceanside and along the coast from south of San Mateo Point northward. This hard bottom stratum allows for development of kelp, which in turn provides an attractive environment for kelp bass and the brown types of rockfishes. Offshore in deeper water the bottom type is gray and green mud and the coastal shelf descends to a depth of 300 to 400 fathoms within 8 to 10 miles offshore. Along the edge of the shelf, in deep water, are several places where rockfishes may be taken.

### OFFSHORE FISHING

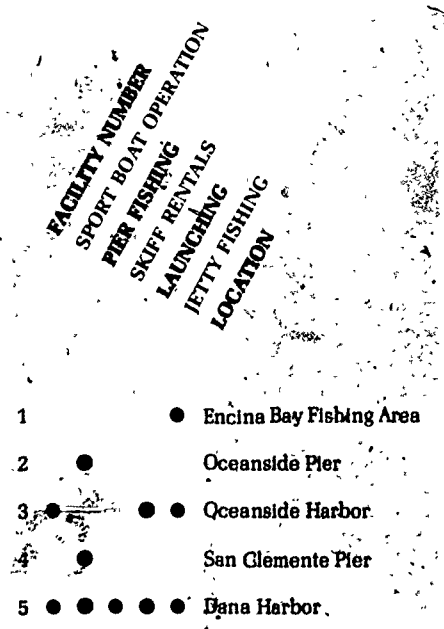
Sport fishing boats are available at the port of Dana Harbor and at

Oceanside. These boats fish the coastal kelp beds and offshore in deep water for rockfishes and other species. During albacore season they run offshore to 60 Mile Bank (60 miles southwest of Point Loma), to the 43 Fathom Bank (35 miles west of Point Loma), and sometimes beyond San Clemente Island. The 209 Bank, about 35 miles west of the mainland, is one of the better fishing areas for striped marlin and swordfish, and albacore occasionally are taken here during July or August.

Immediately offshore from Solana Beach north to off Carlsbad and from San Mateo Point to San Clemente are substantial kelp beds. Although the kelp beds in this area are not as extensive as those off Point Loma to the south, or off the Santa Barbara coast farther north, they do provide a suitable habitat for kelp bass, sand bass and rockfishes (kelp, grass, olive, and vermilion) and also attract coastal migrants such as Pacific barracuda and Pacific bonito. Yellowtail and white seabass are sometimes taken near the kelp as are jack and Pacific mackerels (July to September), opaleye, white croaker, and kelp rockfish. Nearshore rocky reefs provide a habitat suitable for many species such as opaleye, grass, and kelp rockfishes, halfmoon, cabezon, and black surfperch.

Rockfishing is often productive along the edge of the narrow coastal shelf, in water 30 to 100 fathoms deep over rocky, sharp-sloping areas. Anglers fish off Carlsbad to Oceanside and north to Dana Point for bocaccio, chilipepper, canary, and yellowtail species of rockfishes.

Bluefin tuna and striped marlin are taken occasionally off the San



# CHART 2

- Shorefishing Areas
- 3 Fishing Facilities
- Sportboat Operation
- Kelp
- 20 Depth in Fathoms

TO 14-MILE BANK (LASUEN SEAMOUNT) FOR ROCKFISH (BOCACCIO, VERMILION, CHILIPEPPER), AND ABOUT THE BANK AND TO THE SOUTHWEST FOR STRIPED MARLIN, SWORDFISH, AND OCCASIONALLY ALBACORE

ROCKFISH  
BOCACCIO  
VERMILION  
CHILIPEPPER  
CANARY

OCCASIONALLY BLUEFIN TUNA AND STRIPED MARLIN TAKEN NORTH HALF OF CHART AREA OFFSHORE

KELP BEDS  
HARRACUDA, BONITO, YELLOWTAIL, KELP BASS, ROCKFISH, CALIFORNIA HALIBUT, SHEEPHEAD, OPALLEYE, WHITE CROAKER, SAND BASS, PACIFIC MACKEREL, JACK MACKEREL, YELLOWTAIL

ROCKFISH  
BOCACCIO  
CHILIPEPPER  
CANARY  
YELLOWTAIL

TO 209 BANK FOR STRIPED MARLIN IN LATE SUMMER, AND OCCASIONALLY ALBACORE AND SWORDFISH

NEAR WARM WATER OUTFALL FOR CORBINA, LEOPARD SHARK, AND GRAY SMOOTHFOUND SHARK

AT TIMES A GOOD AREA FOR YELLOWTAIL

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



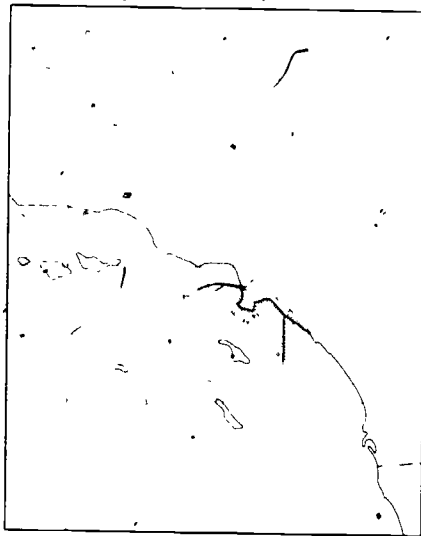
Oceanside coast in late summer, even less frequently, however, in recent years.

#### PIER AND SHORE FISHING

Two public fishing piers are available along this stretch of coast. One is at San Clemente where surfperches (barred, walleye, and rubberlip), California halibut, sculpins, and the usual array of sharks and rays are caught. The second is the Oceanside fishing pier, good at times for runs of California halibut (spring and summer best), sculpin, sargo, jacksmelt, white croaker (kingfish), queenfish, occasionally small white seabass, Pacific bonito, and Pacific barracuda (in summer), kelp and sand bass, and barred and walleye surfperches. In addition, there is shore fishing from the jetty systems at Dana Harbor and Oceanside.

The extensive sandy-shore beaches from Solana Beach to San Clemente are productive areas for the surf angler. Some of the better, or at least more popular, surf fishing areas are found near San Mateo Point where corbina are taken from July through September. Farther south, there is excellent spotfin croaker and barred surfperch fishing along San Onofre Bluffs State Beach near the northern boundary of Camp Pendleton (a permit is required for fishing on U.S. Marine Corps property). Fishing is good 3 miles south of Carlsbad, particularly about the entrance to the cooling-water inlet of the steam-electric generating plant where, because of a constant inflow of water from the ocean, the small bay has a high concentration of California halibut, corbina, and yellowfin croaker. Other good shore fishing spots are north of Leucadia and near San Elijo Lagoon, just north of Solana Beach. Surfperches frequently taken along the sandy shores are the barred (winter, spring best), walleye, shiner, calico (December to March best), and silver species. Other fishes taken by the surf angler are the white and yellowfin croaker, and California halibut. Grunion runs are known to occur on these beaches in late spring and early summer.

The shore from San Mateo Point to San Clemente has only a few isolated areas where rocky-shore species can be taken.



### 3 Laguna Beach to Point Vicente

A great diversity of fishing areas and facilities are available from Laguna Beach to Point Vicente (Chart 3) to accommodate the large number of marine anglers in the greater Los Angeles area. Many types of angling opportunities are available along rocky and sandy shores, from jetties and piers, in bays, and over offshore kelp beds and deepwater fishing grounds. The coastline is oriented generally in a northwest-southeast direction with about one-half composed of sandy beaches; the rest is a rocky shore interlaced with small sandy beaches.

Major sport fishing boat facilities are available at three locations in the Los Angeles-Long Beach Harbor area: one at Long Beach and two at San Pedro. Smaller sport boat operations are available at the Belmont Shore, Huntington Beach, and Seal Beach piers. Newport Beach and Balboa have extensive sport boat and pier facilities.

#### OFFSHORE FISHING

South of Newport Beach to off Laguna Beach the coastal shelf is very narrow, about 2 miles—sometimes less—in width. The bottom nearshore is mostly sand and mud interspersed with rocky areas. Because of the narrow shelf, pelagic species such as bluefin tuna and striped marlin sometimes migrate to, within a short distance of the shore.

From about Newport Beach west toward Long Beach and Point Fermin, the coastal shelf widens to its greatest width in southern California. The nearshore bottom is primarily sand, gray sand, and mud and provides a good habitat for California halibut. In

the wider part of the coastal shelf, the bottom types are sand, shells, green sand, and green mud. Along the outer edge of the coastal shelf, the bottom descends to a depth of 250 to 300 fathoms, providing good rockfishing locations. The bottom reaches depths greater than 400 fathoms near the middle of the San Pedro Channel.

South of Newport are scattered small kelp beds, where a number of coastal species such as barracuda, kelp bass, sand bass, white croaker, bonito, California halibut, sheephead, and rockfishes (kelp, olive, grass, and vermilion) are caught. Occasionally, yellowtail and white seabass are landed. Off Laguna Beach, over deepwater rocky areas, anglers fish for bocaccio, chilipepper, and canary rockfishes. Southeast of Newport Beach, and northwest of Laguna Beach over the coastal shelf, is a kelp area where several of the brown species of rockfishes are commonly taken. Bluefin tuna and striped marlin have been caught just offshore a short distance

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

1	●	Aliso Beach Pier
2	● ● ● ●	Newport Bay
3	●	Balboa Pier
4	●	Newport Beach Pier
5	● ●	Huntington Beach Pier
6	●	Huntington Harbor
7	● ●*	Seal Beach Pier
8	● ●	Alamitos Bay
9	● ●*	Belmont Pier
10	●	Golden Shores
11	●	Long Beach Sportfishing
12	● ● ●	San Pedro Sportfishing
13	●	22nd Street Landing
14	● ●	Cabrillo Beach

\*Also has fishing barges

# CHART 3

----- Shorefishing Area

13 Fishing Facilities

--- Sportboat Operation

--- Barge

--- Kelp

Depth in Fathoms

## LOS ANGELES

KELP SURFPERCH  
OPALEYE

ROYAL PALMS  
ST. BEACH  
San Pedro

## Long Beach

WARM WATER OUTFALL:  
SMALL BARRACUDA  
SMALL BONITO  
CALIFORNIA HALIBUT

ALAMITOS  
ST. BEACH  
Seal Beach

Sunset Beach

BOLSA CHICA  
ST. BEACH

SAND  
BASS

Huntington  
Beach

HUNTINGTON  
ST. BEACH

Newport  
Beach

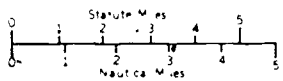
Costa  
Mesa

Newport  
Bay

Corona del Mar  
CORONA DEL MAR  
ST. BEACH

IN BAY:  
KELP BASS  
SAND BASS  
SPOTTED SAND BASS  
SPOTTED CROAKER  
YELLOWFIN CROAKER  
SURFPERCH  
RAYS  
SMALL WHITE SEABASS

Laguna Beach



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

from Laguna Beach, although not commonly in recent years

Farther offshore to the west is Lasuen Seamount, widely known as "14 Mile Bank" or "58 Fathom Spot." This is an excellent bottomfishing area for rockfishes (bocaccio, vermillion, and chdipepper), and in summer, striped marlin and swordfish are taken near the surface about the Seamount and to the southwest. Albacore also are caught here during the summer, but like bluefin tuna, only occasionally in recent years.

Off Newport, in the Newport Submarine Canyon, sablefish (blackcod), a species usually associated with more northern latitudes, can be taken in deep water. On rare occasions during the spring, coho (silver) salmon have been caught off Newport. Since deep water is close to shore off Newport, striped marlin are taken on occasions only a short distance south of the Newport Harbor entrance.

From Huntington Beach west over nearshore sandy bottom, there is good fishing for many of the bottom species. California halibut is one of the more important fishes caught in this area.

The "horseshoe kelp" bed, south of Los Angeles Harbor, has been reduced in size over the years and the kelp growth is now under the surface. However, this spot sometimes is good for Pacific barracuda, Pacific bonito, kelp bass, yellowtail, jack and Pacific mackerels, and rockfishes (olive, kelp, and vermillion).

#### NEAR SHORE AND SHORELINE FISHING

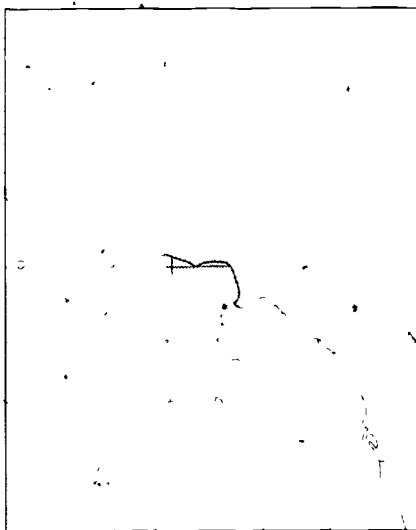
The greater Los Angeles Harbor-San Pedro Bay area, being readily accessible to large numbers of people, is a popular place for fishing from shore and small boats. Good locations for catching bay fishes can be found within the harbor itself, along the extensive jetties, or about piers that are on open channels in the outer harbor area. Bay fishing is also popular in Alamitos and Seal Beach bays where jacksmelt, surfperches, skates, sharks, rays, sargo, and turbot are taken by anglers along with an occasional small mackerel or Pacific bonito.

Numerous fishing piers (public and commercial) and open bulkhead areas provide many thousands of recreational fishing hours each month for only the cost of bait and tackle. In addition, to the many commercial piers and marina floats available for fishing in Los Angeles Harbor, there are piers built specifically for fishing at Cabrillo Beach (near Point Fermin), Belmont Shore, Seal Beach, Huntington Beach, Newport Beach (two piers), and south of Laguna Beach at Aliso Beach. From these piers, anglers catch California halibut, kingfish (white croaker),

sharks, rays, jacksmelt, queenfish, surfperches (barred, black, walleye, pile, and shiner), and Pacific and jack mackerels.

Surf fishing takes place along rocky shores from Point Fermin to Point Vicente. Southwest from Newport Bay to Dana Point there is fishing from the man-made jetties at Los Alamitos Bay and Newport Bay for opaleye, grass and kelp rockfishes, halfmoon, cabezon, and black perch. The San Pedro breakwater from Cabrillo Beach to the San Pedro Channel entrance is accessible from shore; rest of the breakwater to the east can be reached by boat. Here there is good fishing for opaleye, halfmoon, kelp bass, and rockfishes (brown types).

Sandy-shore fishing is available from Newport Beach to Long Beach. One of the more popular places for surf fishing is Bolsa Chica State Beach. Species most commonly taken off sandy beaches are surfperches (barred, walleye, shiner, calico, and silver), croakers (spotfin, white and yellowfin), California halibut, and corbina. Grunion are also caught during their periodic spawning runs.



#### 4 Point Vicente to Solroamar

The coast from Point Vicente to Solroamar (Chart 4) borders one of the most populated areas along the west coast and is intensively fished, particularly from Redondo Beach to Santa Monica. Sandy shore, rocky shore, pier and jetty fishing, and excellent facilities for boat fishing are found from Point Vicente to Solroamar.

The coastline is rocky from near Point Vicente to Malaga Cove, south of Redondo Beach. Northward from

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- 1 ● ● ● ● ● Redondo Beach (King Hbr.)
- 2 ● Hermosa Beach Pier
- 3 ● Manhattan Beach Pier
- 4 ● ● ● ● Marina del Rey
- 5 ● Venice Pier
- 6 ● ● ● Santa Monica Pier
- 7 ● ● Malibu Pier
- 8 ● ● Paradise Cove Pier




\*Has fishing barge

Malaga Cove to northwest of Santa Monica is an extensive stretch of sandy beach. From Santa Monica, the coast swings westward and the coastal shore begins to get rocky once again, with occasional offshore reefs. The first substantial nearshore concentrations of kelp, which are common from here to Point Conception, are found just west of Malibu Point to near Point Dume, and again west of Zuma Beach.

The offshore coastal shelf is very narrow from Point Fermin to Point Vicente, and these waters are frequented many times by schools of bait fish such as anchovy and jack and Pacific mackerels. Depths of 200 fathoms or more are found 2 to 3 miles offshore. The bottom then descends to its greatest depth in the San Pedro Channel—over 400 fathoms. Bottom types, aside from rocky areas, are generally green sand; in deeper water, green mud predominates. Along the edge of the shelf are rocky areas that attract sizable concentrations of red rockfishes.

Santa Monica Bay is relatively shallow (less than 50 fathoms deep) and cut by two prominent submarine canyons, the Redondo and Santa Monica canyons. Rocky areas are found near the edges of these canyons as well as along the edge of the coastal shelf, and these places usually provide some of the better rockfishing. A number of shallow reefs are offshore, in lower Santa Monica Bay between Point Vicente and Redondo Beach. The coastal shelf is about 3 miles wide from Santa Monica to near

# CHART 4

▲▲▲▲ Shorefishing Areas  
 3 Fishing Facilities  
 Sportboat Operation  
 Fishing Barge  
 + Reef  
 Kelp  
 Depth in Fathoms

KELP BASS  
 ROCKFISH  
 HALIBUT  
 BARRACUDA  
 WHITE SEABASS  
 SCULPIN  
 SHEEPHEAD  
 SAND BASS

KELP BASS  
 SAND BASS  
 WILLY CUTT  
 PACIFIC MACKEREL  
 BONNETED  
 WHITE SEABASS  
 BARRACUDA

BARGE  
 BONITO  
 HALIBUT  
 MACKEREL  
 SCULPIN  
 WHITE CROAKER  
 SURPERCH

BAY KESH  
 CANARY  
 VERMILION  
 GUPPER  
 BOCAPILO  
 CHILTHE PERP

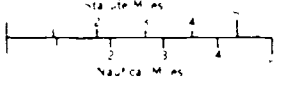
BONITO  
 HALIBUT  
 BARRACUDA

BARGE FISHING:  
 BONITO  
 BARRACUDA  
 MACKEREL  
 ROCKFISH  
 HALIBUT

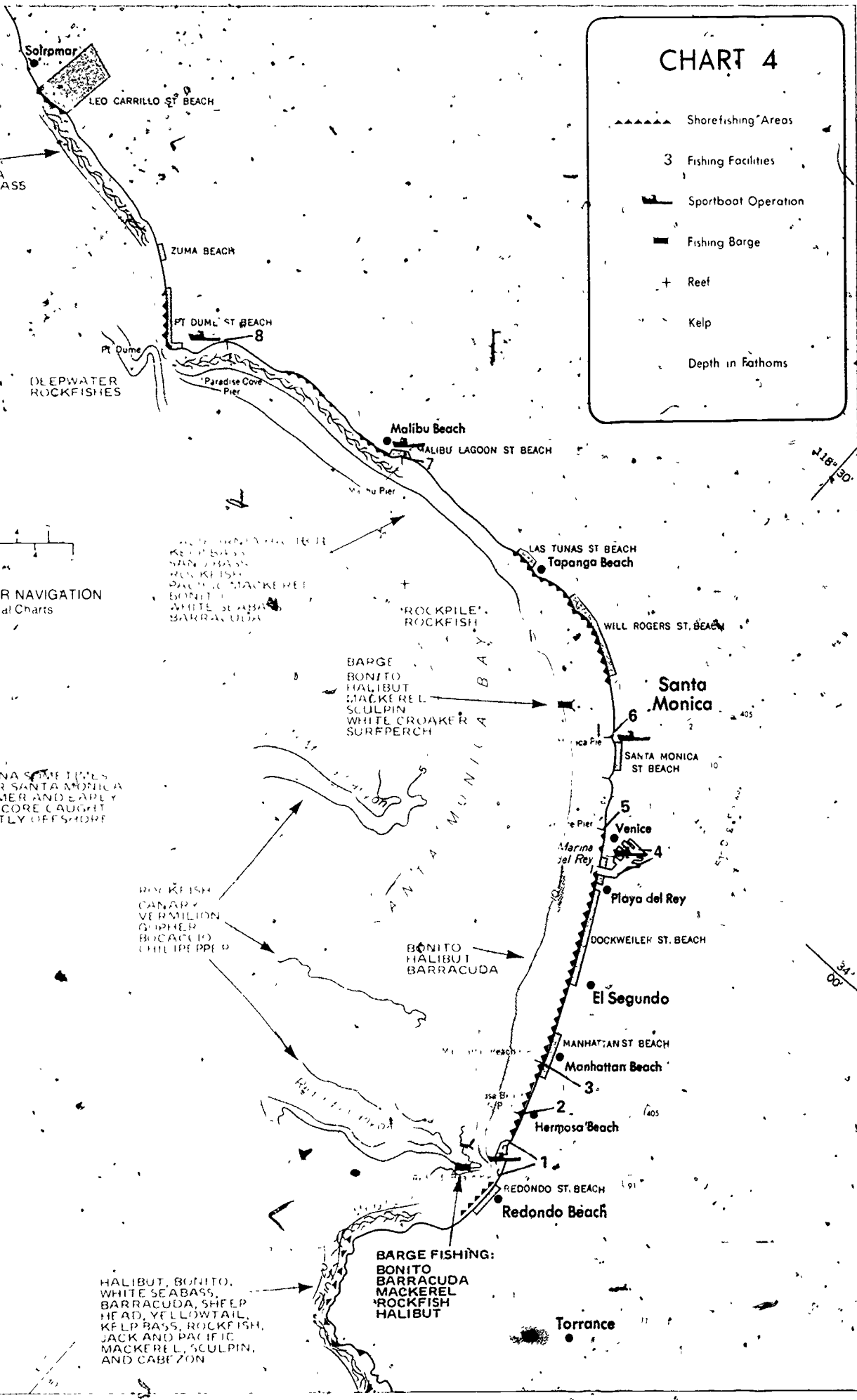
HALIBUT, BONITO,  
 WHITE SEABASS,  
 BARRACUDA, SHEEP  
 HEAD, YELLOWTAIL,  
 KELP BASS, ROCKFISH,  
 JACK AND PACIFIC  
 MACKEREL, SCULPIN,  
 AND CABEZON

BLUEFIN TUNA SOMETIMES  
 TAKEN NEAR SANTA MONICA  
 BAY IN SUMMER AND EARLY  
 FALL. ALBACORE CAUGHT  
 INFREQUENTLY OFFSHORE  
 IN CHANNEL

PACIFIC OCEAN



NOT TO BE USED FOR NAVIGATION  
 See NOS Nautical Charts



Point Dume and is about 2 miles wide to the west beyond Point Dume. Again the bottom types are usually sand nearshore, grading to mud and sand farther offshore, and green mud at the greater depths.

#### OFFSHORE FISHING

Excellent facilities for sport fishing are located at the small-boat harbors of Redondo Beach, Marina del Rey, Santa Monica, and to the west at Malibu and Paradise Cove. Sport fishing boats operate locally or travel from these ports to distant waters to fish around Catalina, Santa Barbara, or San Nicolas islands. Special offshore trips for albacore are made during the summer. The boats fish southwest of Redondo Beach along the edges of the Redondo Canyon (the south edge in particular) where there is good deepwater fishing for rockfishes (vermillion, canary, bocaccio, gopher, and chilipepper). Rockfishing is also productive off Point Dume where vermillion, olive, and bocaccio species enter the catch. Along the kelp beds west of Zuma Beach, olive, grass, and kelp rockfishes, are taken frequently, along with occasional bonito and yellowtail during summer.

#### PIER AND SHORE FISHING

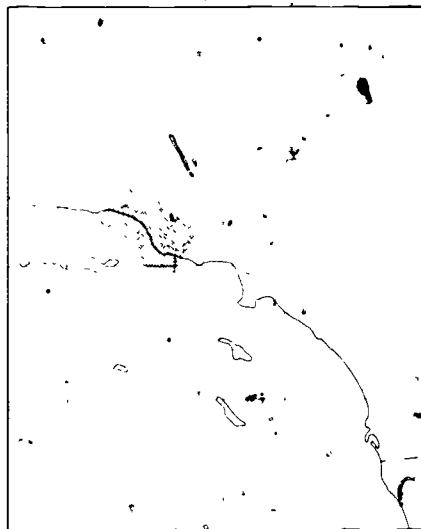
Rocky-shore fishing is popular from Point Vicente to near Malaga Cove, just south of Redondo Beach. Several species of surfperches commonly are taken here along with olive, grass, and kelp rockfishes. Opaleye fishing is excellent along this rocky stretch of coast.

Rocky-shore species caught in the area west of Santa Monica are the opaleye, surfperches (black and shiner), rockfishes (grass, kelp, and olive), halfmoon, cabezon, sargo, and occasionally kelp bass.

From Redondo Beach north to Manhattan Beach are several public fishing piers. These piers are popular for fishing California halibut (spring and summer best) and surfperches (barred, black, walleye, pile, and shiner). Mackerel sometimes are taken from these piers as are the usual action-getters—sharks and rays. At the Redondo piers, excellent bonito fishing is available; these fish are apparently attracted by the warm water discharged by a steam-electric power plant.

Excellent surf fishing is available along the extensive sandy beaches from south of Redondo Beach to north of Santa Monica, especially between Redondo Beach and Playa del Rey. Sandy-shore species taken by surf anglers are barred surfperch (best in January through March), walleye perch, California halibut (spring

and summer best), jacksmelt, and shovelnose guitarfish. In some years fishing is good for corbina, spotfin croaker, and yellowfin croaker, particularly along the sandy shore from Playa del Rey to Venice and from Manhattan Beach to Redondo Beach. Grunion are sometimes gathered along Malibu, Santa Monica, Venice, and Hermosa beaches during periods of evening high tides in the spring and summer. Zuma Beach's sandy shores offer good fishing for barred surfperch, with occasional catches of corbina and croakers.



#### OFFSHORE FISHING

The principal sport fishing ports in the Ventura area (Chart 5) are Port Hueneme, Channel Islands Harbor, and Ventura Harbor. These are the principal ports closest to the population center of Los Angeles having sport fishing boats that specialize in fishing about the Santa Barbara Channel Islands and offshore south of the islands for albacore during the summer fishing season. (See Chart 7 for Channel Islands fishing.) On isolated occasions, catches of coho salmon are made in late winter and early spring by party boats fishing southeast of Point Mugu and south and west of Ventura. The catches during this time are not large, but represent the southern extension of salmon sport fishing.

About 11 miles offshore from Port Hueneme and the Channel Islands Harbor is Anacapa Island, one of the more important islands for marine sport fishing. The island is the eastward extension of the chain of Santa Barbara Channel Islands and is less

than one-half mile wide in most places, rising to an elevation of 930 feet above sea level. There is excellent fishing around Anacapa for kelp bass and black sea bass, as well as for bocaccio and canary rockfishes. Occasional catches of Pacific barracuda and yellowtail are made here in summer. Broadbill swordfish and striped marlin are taken south of Anacapa Island during summer and early fall. The only broadbill tournament fishing on the west coast takes place near the island.

The coastal shelf east of Port Hueneme is very narrow; from Point Mugu eastward it is no more than 1 mile wide. Immediately west of Point Mugu, the Mugu Submarine Canyon cuts through the coastal shelf, and water depths plunge to 250 to 300 fathoms. The coastal shelf widens slightly between Point Mugu and Port Hueneme before being interrupted by another submarine canyon, Hueneme Canyon. Northwest of Hueneme the shelf becomes several miles wide, an area commonly known as the Ventura Flats. The shelf narrows slightly west of Ventura, and the more offshore rocky reefs provide good rockfishing.

The bottom types range from rock to sand and shells in the southeast to mud, sand, and shells, in the Mugu-Hueneme area. Sand and mud predominate on the Ventura Flats, which has good fishing for flatfish such as California halibut. In deeper water the typical mud and green mud bottom predominates. The offshore bottom becomes shallower west of Hueneme Canyon, and adjacent to Ventura Flats, the depth at mid-Santa Barbara Channel is only about 130 fathoms.

Immediately offshore of the area from Solromar to Point Mugu, anglers fish along the edge of the kelp beds for rockfishes (grass, olive, and kelp) and occasionally bonito. About 4 miles

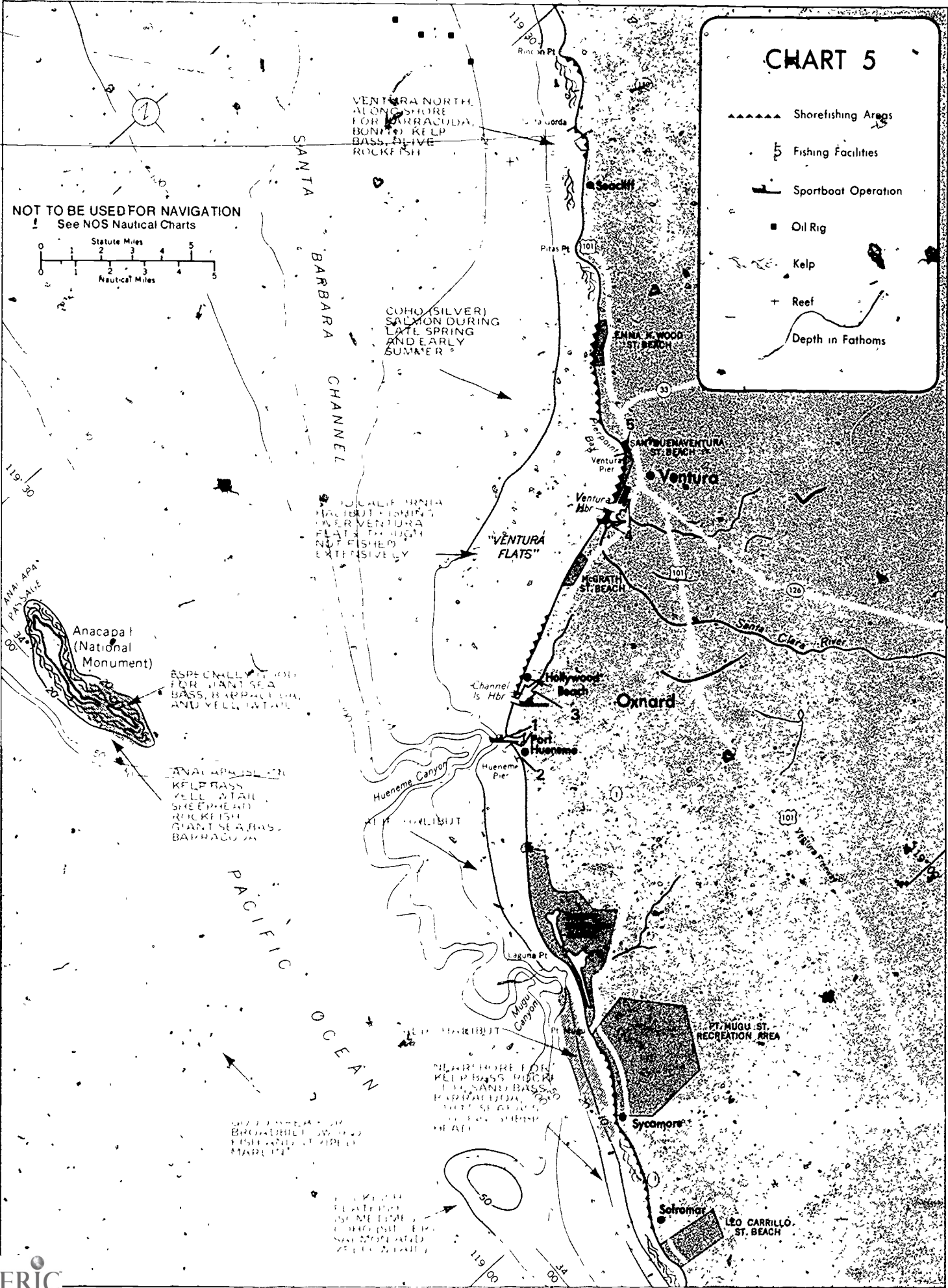
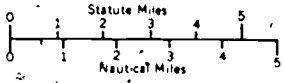
FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- |      |    |                        |
|------|----|------------------------|
| 1 ●  | ●  | Port Hueneme           |
| 2 ●  | ●  | Hueneme Pier           |
| 3 ●● | ●● | Channel Islands Harbor |
| 4 ●  | ●● | Ventura Harbor         |
| 5 ●  | ●  | Ventura Pier           |

# CHART 5

- ▲▲▲▲ Shorefishing Areas
- Ⓜ Fishing Facilities
- Sportboat Operation
- Oil Rig
- ⋈ Kelp
- + Reef
- Depth in Fathoms

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



VENTURA NORTH  
ALONG SHORE  
FOR BARRACUDA,  
BONNET, KELP  
BASS, FLUVE  
ROCKFISH

COHO (SILVER)  
SALMON DURING  
LATE SPRING  
AND EARLY  
SUMMER

LOCAL CALIFORNIA  
HARBOR FISHING  
OVER VENTURA  
FLATS THROUGHOUT  
NOT FISHED  
EXTENSIVELY

"VENTURA  
FLATS"

ESPECIALLY FISHED  
FOR GIANT SEA  
BASS, BARRACUDA,  
AND YELLOWTAIL

ANACAPA ISLAND  
KELP BASS,  
YELLOWTAIL,  
SHEEPHEAD,  
ROCKFISH,  
GIANT SEA BASS,  
BARRACUDA

NEAR SHORE FOR  
KELP BASS, BUCK  
TAIL SAND BASS,  
BARRACUDA,  
GIANT SEA BASS,  
SHEEPHEAD

NEAR SHORE FOR  
BROADBILLY WHOLE  
FISH AND STRIPED  
MARLIN

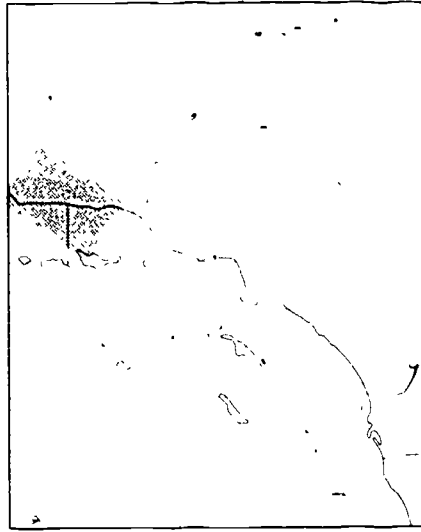
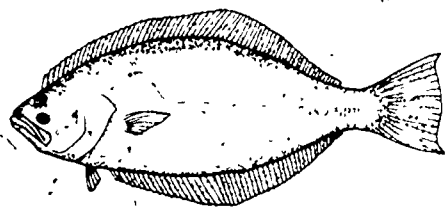
NEAR SHORE  
FLATS FOR  
SOME TIME  
CONCENTRATED  
SAND BASS AND  
YELLOWTAIL

offshore of Solroniar there is a shallow area approximately 45 fathoms deep. This is a good fishing spot for chilipepper rockfish and sometimes yellowtail and Pacific barracuda. Limited catches of coho salmon are made occasionally in the early spring.

PIER AND SHORE FISHING

The coast is rocky from Leo Carrillo State Beach (bottom of chart) to Point Mugu. The shore borders the coast highway and is readily accessible to the fishing public. This rocky coast offers good fishing for opaleye, kelp bass, surfperches, and rockfishes (grass, kelp, and olive). From about Point Mugu to near Port Hueneme, access is restricted since it is part of the Point Mugu Naval Air Station and Pacific Missile Range. The sandy shore starts at Point Mugu and extends up along the coast all the way to Ventura, from Ventura west to Rincon Point, sandy beaches are interspersed with rocky points of land. Along the sandy beaches extending from Point Mugu northwestward, the following species are taken from shore: walleye and barred surfperches (excellent fishing area for barred, January to March best), California halibut (spring and summer best), jacksmelt, sharks (several species), corbina, spotfin croaker, yellowfin croaker, and occasionally kelp bass.

Anglers fish about the jetties and docks at Port Hueneme and from the sport fishing pier (actually a fishing float) in the Channel Islands Harbor. About the Port Hueneme jetties, anglers will likely find opaleye, surfperches (black and shiner), rockfishes (grass, kelp, and olive), halfmoon, and cabezon. Some of the fishes caught from the public fishing float at Channel Islands Harbor are walleye and barred surfperches, staghorn sculpin, California halibut (spring and summer), lingcod (winter), kelp bass, several species of sharks and rays, and occasionally croakers.



6. Santa Barbara Area

This coastline (Chart 6), which encompasses the major southern California sport fishing port of Santa Barbara, is oriented in an east-west direction. This is the only sizable coastal segment of the U.S. Pacific coast to have this orientation other than the south side of the Strait of Juan de Fuca in Washington. The area is distinguished by the most extensive and best-developed kelp beds along the California coast. Lush kelp beds are present throughout the region, but are best developed from about Goleta Point to Point Conception.

At the west end of this area is one of the most notable of coastal geographical features, Point Conception. This is often called the "Cape of Good Hope of the West Coast" because of the wide variation in winds and weather found about the point. Many times the waters south and east of Point Conception may be relatively smooth and have low wind speeds over them. Immediately north and west of the point and offshore only a short distance, however, the seas may be rough and the wind near gale force. The coastline south of Point Conception is protected by a coastal mountain range that parallels the shore and provides an ameliorating influence on the prevailing northwest winds, which are most intense from spring to early fall.

Point Conception is often described as an ecological dividing point for marine life. South of the Point is the subtropical zone; north of it is the temperate zone. Many coastal pelagic fishes, such as Pacific barracuda and yellowtail that are common to the waters off southern California and Baja California, Mexico, are taken only rarely north of Point Conception. Conversely, some pelagic northern marine and anadromous species, such as coho salmon, are

taken only in small numbers southeast of Point Conception in late winter and early spring.

The shoreline from Carpinteria to Point Conception and Point Arguello is predominantly a sandy one, broken occasionally by a few prominent points with shallow reefs close to shore. Along most of the coast, the shore is backed by cliffs 50 to 150 feet high.

Offshore the coastal shelf is quite broad when compared to the coastal areas to the south. The shelf is about 5 miles wide south of Santa Barbara, narrowing westward to about 2 to 3 miles wide off Point Conception. The depths in the center of the Santa Barbara Channel range from about 200 fathoms off Santa Barbara to 250 fathoms south of Point Conception.

OFFSHORE FISHING

From Santa Barbara, sport fishing boats travel to grounds along the coast to the west and east and offshore to the Santa Barbara Channel Islands. (See Chart 7.)

A number of reefs along the coast are excellent fishing spots, as are the extensive kelp beds. West of Santa Barbara, near and amid the kelp are resident populations of kelp bass, rockfishes (olive, grass, and vermillion), sheephead, and cabezon. During summer, anglers also catch Pacific barracuda and an occasional yellowtail or white seabass. Pacific barracuda generally work up the coast toward Point Conception from September to November and down the coast from January to April. Pacific bonito sometimes show along the coast in summer and fall.

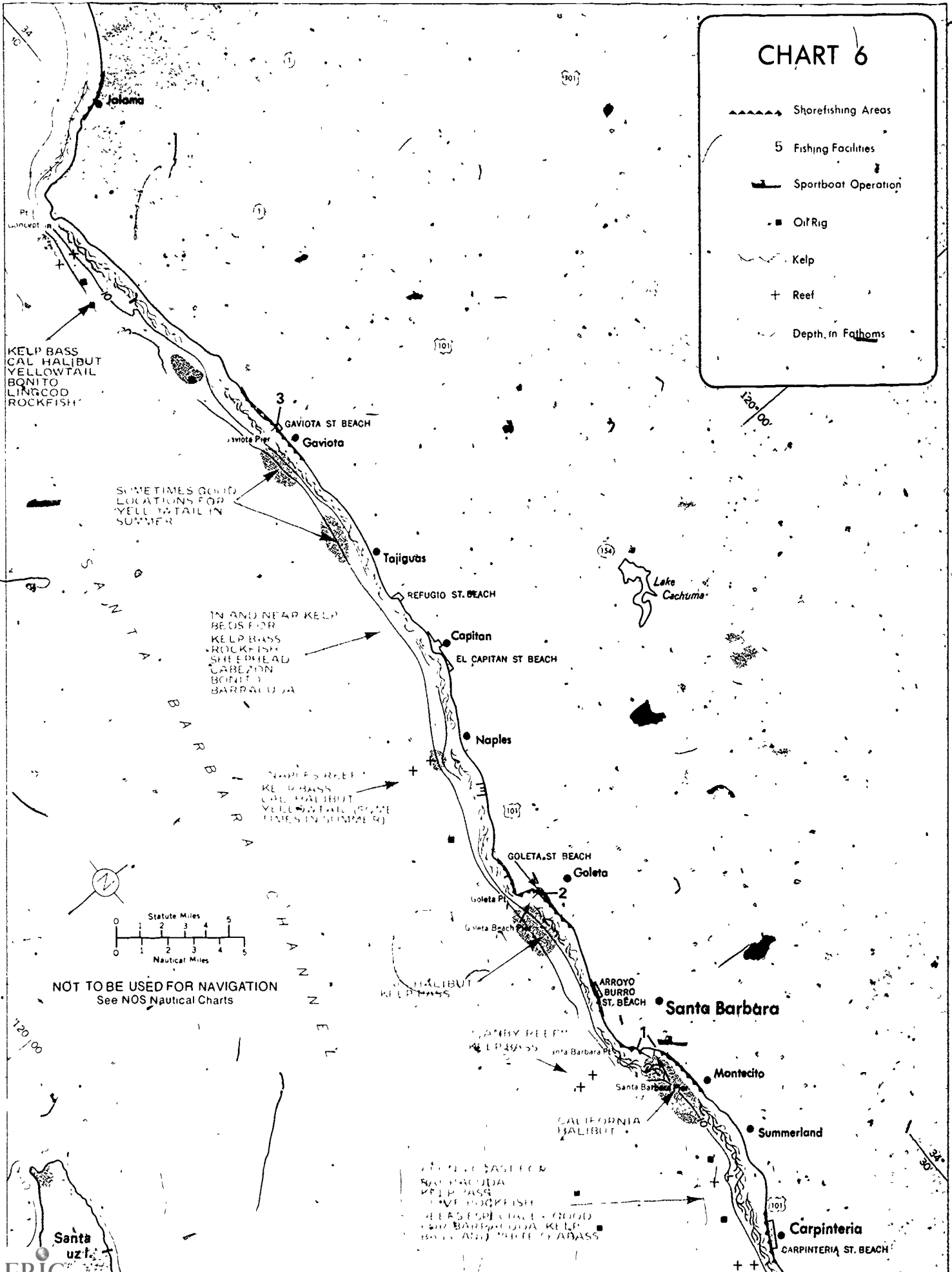
Good drift-fishing locations for California halibut and kelp bass are found off the Goleta Beach pier; other good halibut grounds are just east of

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- 1 ● ● ● ● ● Santa Barbara Harbor
- 2 ● ● ● ● Goleta Beach
- 3 ● ● ● ● Gaviota Beach Pier

# CHART 6

- ▲▲▲▲ Shorefishing Areas
- 5 Fishing Facilities
- Sportboat Operation
- Oil Rig
- ~ Kelp
- + Reef
- Depth, in Fathoms



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



Point Conception, where fishing is best in spring and summer. This area also yields occasional summer catches of bonito and yellowtail.

#### PIER AND SHORE FISHING

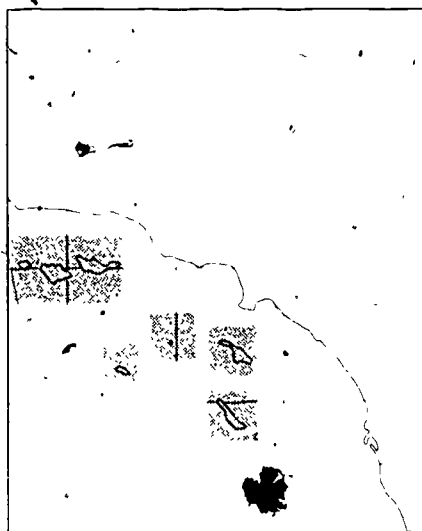
Pier fishing is available at Santa Barbara (Sterns Wharf) and at the Goleta Beach and Gaviota public piers. The Goleta Beach pier is noted for sizable catches of surfperches. Walleye surfperch are abundant, and barred surfperch fishing is excellent in winter and spring. Best California halibut fishing is in spring and early summer, and tomcod, spotfin croaker, sand shark, and jacksmelt enter the pier angler's catch mostly during July, August, and September.

At the Santa Barbara pier, anglers also catch a variety of surfperches (rubberlip, shiner, walleye, and barred), as well as white croaker, jack and Pacific mackerels, a few California halibut, and even an occasional bonito if the fish are running close to shore.

Another public fishing pier is a short distance west of Santa Barbara at Gaviota Beach State Park. Here anglers take such species as walleye and barred surfperches, sharks, California halibut (in spring and summer), lingcod (winter), kelp bass, rockfishes, and occasionally croakers.

The beaches west of Capitan to north of Point Conception are especially good for surf fishing. Sandy-shore species include the barred surfperch (January through March best), walleye and rubberlip surfperches, spotfin croaker (usually a brief summer run in this area), and California halibut (late spring and summer best). Rocky-shore anglers most often encounter cabezon, black surfperch, and olive, kelp, and grass rockfishes.

Immediately north of Point Conception at Jalama, anglers cast into the surf for barred, silver, and walleye surfperches, and kelp greenling. Farther north, from Point Arguello north to Point Sal (not shown on chart), the coastal area is usually closed to civilian use due to Navy and Air Force missile-launching facilities, with the exception of a small beach at the town of Surf. Here there is good surf fishing for barred, silver, calico, walleye surfperches and California halibut.



## 7.8 Southern California Islands

All the southern California islands (Charts 7 and 8) are important to marine game fishing and probably will become increasingly important in future years. These islands are San Clemente, Santa Catalina, Santa Barbara, San Nicolas, Anacapa (covered separately, Chart 5), Santa Cruz, Santa Rosa, and San Miguel. All are in the general area southeast of Point Conception near the southwest edge of the area commonly known as the southern California Bight, which extends from Point Conception to offshore San Diego. The edge of the continental shelf is west of the offshore islands and about 25 miles west of Point Conception, extending southeast in a general northwest-southeast direction and passing about 120 miles offshore from San Diego. Between the edge of the continental shelf and the southern California coast is a series of deep basins, some reaching a depth of 1,000 fathoms or more.

The current flow within the southern California Bight and in the vicinity of the islands is generally counterclockwise. Sea surface temperatures during the summer are usually warmest, at the center of a current gyre that occurs near the center of the Gulf of Catalina—an area bordered by Catalina Island on the north, San Clemente Island on the

southwest, and the mainland coast near Oceanside on the east. This warm-water zone is one of the better fishing areas for striped marlin and swordfish. Other high surface temperatures are sometimes noted in summer south of Santa Cruz and Anacapa islands; again, these warm-water areas represent good locations at times for the highly prized swordfish and marlin.

#### SANTA BARBARA CHANNEL ISLANDS

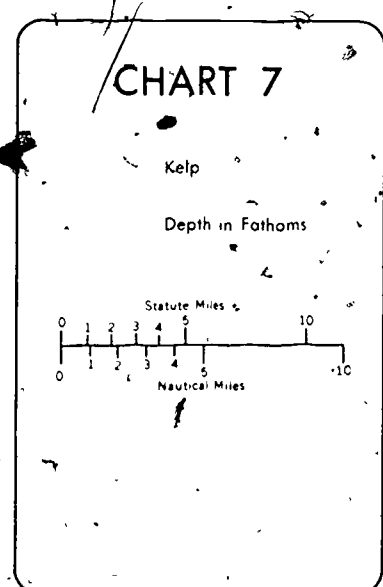
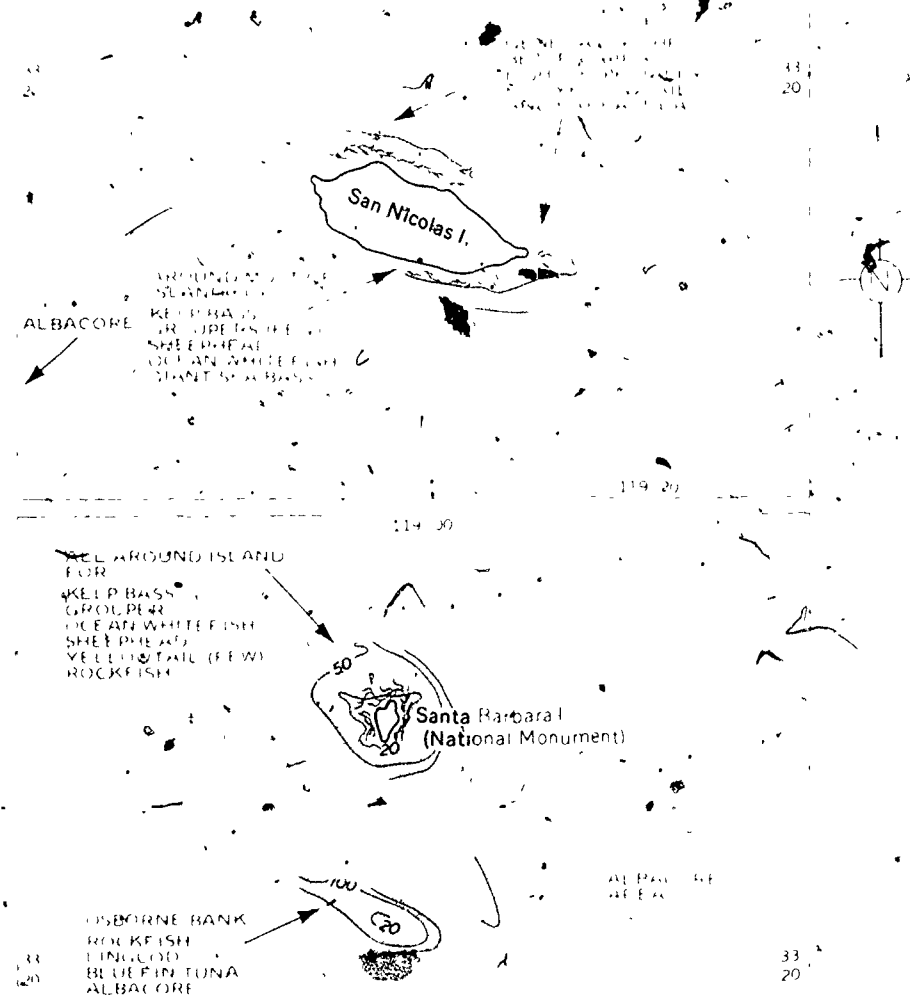
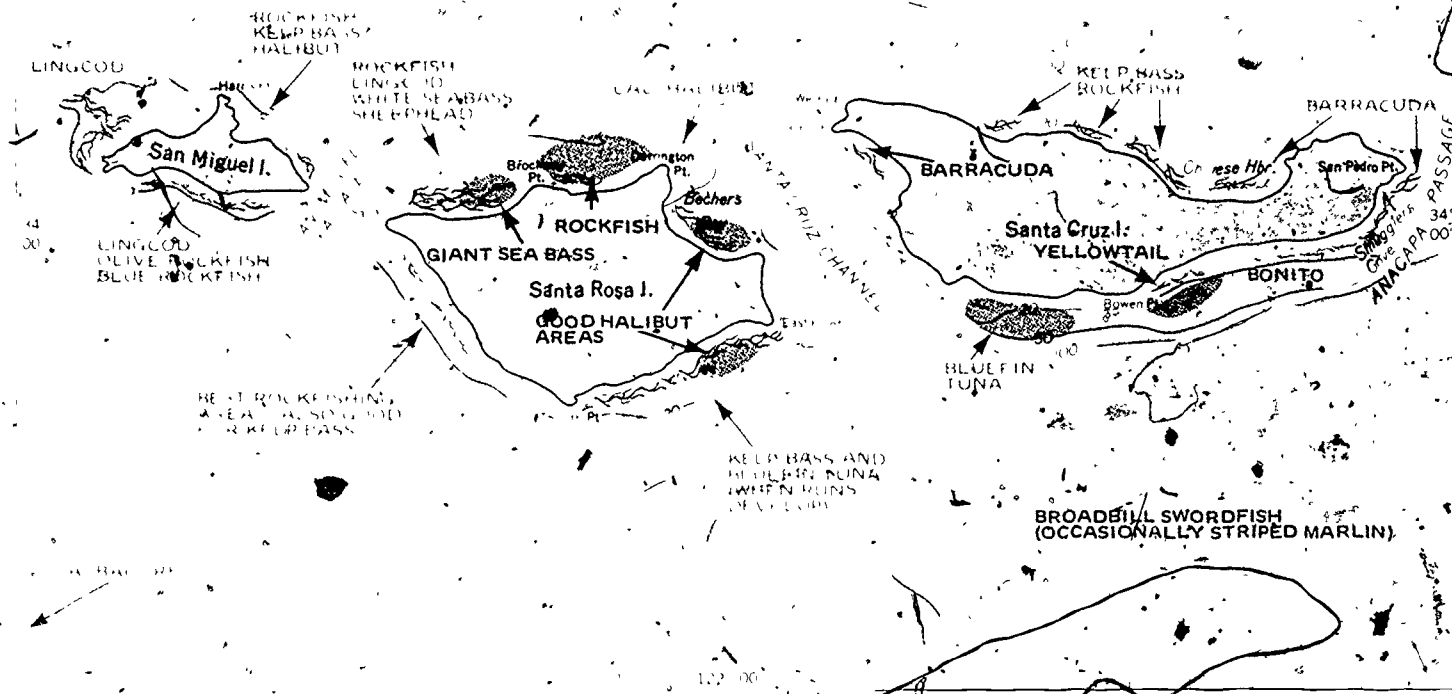
Many of the good fishing areas about the Santa Barbara Channel Islands are noted on Chart 7. Chart 5 provides information on Anacapa Island, easternmost and smallest of the four Santa Barbara Channel Islands. Sport fishing boats visit all these islands from Port Hueneme, Channel Islands Harbor, Ventura Harbor, and Santa Barbara. During summer, albacore boats occasionally travel farther offshore near the edge of the continental shelf, southwest of Santa Rosa and San Miguel islands and below San Nicolas Island.

The climate about the Santa Barbara Channel Islands is usually influenced by northwest winds from spring through summer, though the wind intensity is moderated slightly owing to their distance south and east of Point Conception. Fog and low stratus clouds are common about the westernmost islands during late spring and summer.

The westernmost island, San Miguel, is 7 miles long, 3 miles wide, and rises to a height of 831 feet. The island coastline is predominately rocky with many shoal areas along the west and north sides. Sandy beaches are scattered about the island; the beach at the west end contains one of the largest seal and sea lion rookeries in southern California. About the island are several good places for fishing lingcod and rockfishes.

Santa Rosa Island is privately owned and has a rocky shore along the northwest and southwest sides; however, the east end has a number of sandy beaches. Good fishing for species noted on the chart, and for rockfishes and lingcod, can be found nearshore about the northern and western ends of the island.

The western islands (Santa Rosa and San Miguel) have not been fished as extensively as the islands closer to



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

the ports in the Ventura and Santa Barbara areas. The distance that sport fishing boats are required to travel is an important factor. Additionally, wind, weather, and sea conditions about these islands are usually more severe than at the islands to the east.

Santa Cruz is the largest of the Channel Islands and is privately owned; it and Anacapa Island have the most sport fishing pressure. Rock fishing is good all about the island; fishing is usually best on the southeast side, which is protected from the westerly winds. Sometimes this lee side of the island has excellent fishing for yellowtail and bonito. Bluefin tuna have been taken off the southwest end commercially during the summer, so this area has a potential for a sport fish catch of this species.

#### SAN NICOLAS ISLAND

San Nicolas (Chart 7) is 25 miles southwest of Santa Barbara Island. The nearest point on the mainland is Point Vicente, 55 miles to the northeast. The island is owned by the U.S. Navy and the surrounding water is a naval restricted area, so consult Notices to Mariners before fishing about the island.

The island is  $2\frac{1}{2}$  miles long, and the highest point is 907 feet above sea level. A sizable shoal area extends around it, principally on the northwest and north sides. The bottom types are scattered rocky areas on the north and west ends, with shallow areas of sand and white and green shells. The shore is rocky, except for isolated sandy beaches, and the east end has the greatest predominance of sand.

Fishing is good about the entire island, but only a small amount of fishing effort is expended in the area. Sport fishing boats from Port Hueneme and Channel Islands Harbor and from the Los Angeles area sometimes fish here. No one section is noted for being distinctively better than the others. This island will probably see increased fishing in the future.

#### SANTA BARBARA ISLAND

The small island of Santa Barbara (Chart 7) is 20 miles west of the "west end" of Catalina Island. It is about 1-mile long and  $\frac{1}{2}$  mile wide and rises abruptly to a peak of 635 feet above sea level. The shore is rocky, and kelp areas are common about the entire island; the heaviest kelp growth is along the north side.

Fishing boats from the Los Angeles area and from Port Hueneme and Channel Islands Harbor frequent Santa Barbara Island. Anglers fish all about

the island, and no one area is noted for having better fishing than another. Albacore are sometimes taken about 5 miles southeast of the island. To the south about 6 miles is Osborne Bank, a good fishing area for rockfishes, lingcod, and occasionally bluefin tuna and albacore.

#### SANTA CATALINA ISLAND

Because of its proximity to metropolitan Los Angeles, Santa Catalina Island (Chart 8) has been fished intensively by marine game fish anglers for a great number of years. Santa Catalina Island is privately owned and is one of the largest of the eight southern California islands. Although the island points in a north-west-southeast direction, common terminology results in the northwest end being called the "west end" and the southeast end, near Avalon, being called the "east end." The island is about 6 miles wide and 18 miles long. The northwest third is constricted, and the narrowest point is called the "isthmus." Here the island is only about one-third of a mile wide with Isthmus Cove on the northeast side and Catalina Harbor on the southwest side. The island rises to an altitude of about 2,000 feet; much of it is over 1,000 feet high.

The coastline about Catalina is rocky in most places, and patches of kelp frequently are found nearshore. Sizable kelp areas occur near the west end and near the entrance to Catalina Harbor. Some patchy areas occur south of the isthmus toward the east end. The south side (southwest) has good fishing for a number of species (see chart), and white seabass are frequently caught while nightfishing. Kelp bass are fished inshore, and the sandy coves offer good fishing for California halibut and ocean whitefish.

Excellent billfishing for striped marlin and broadbill swordfish can be found off the east end during the summer. Bluefin tuna are sometimes taken south and west of the island, between Santa Catalina and San Clemente islands. The "228-fathom spot," 5 miles northeast of Avalon Harbor, is good during late summer for marlin and swordfish. The "58-fathom spot" (also known as "14-mile bank" and Lasuen Seamount), about midway between Avalon Harbor and Dana Point on the mainland, is good for striped marlin, swordfish, and albacore (July through September). This bank also provides good fishing for rockfishes. Southwest of the 58-fathom spot, toward Catalina and San Clemente islands, is another good fishing area for striped marlin and swordfish.

#### SAN CLEMENTE ISLAND

The large island of San Clemente (Chart 8) is about 70 miles west of the mainland off Oceanside and about 45 miles south of Long Beach. The entire island is the property of the U.S. Navy and there are no civilian marinas or public access. Portions of the surrounding waters are restricted because of naval operations.

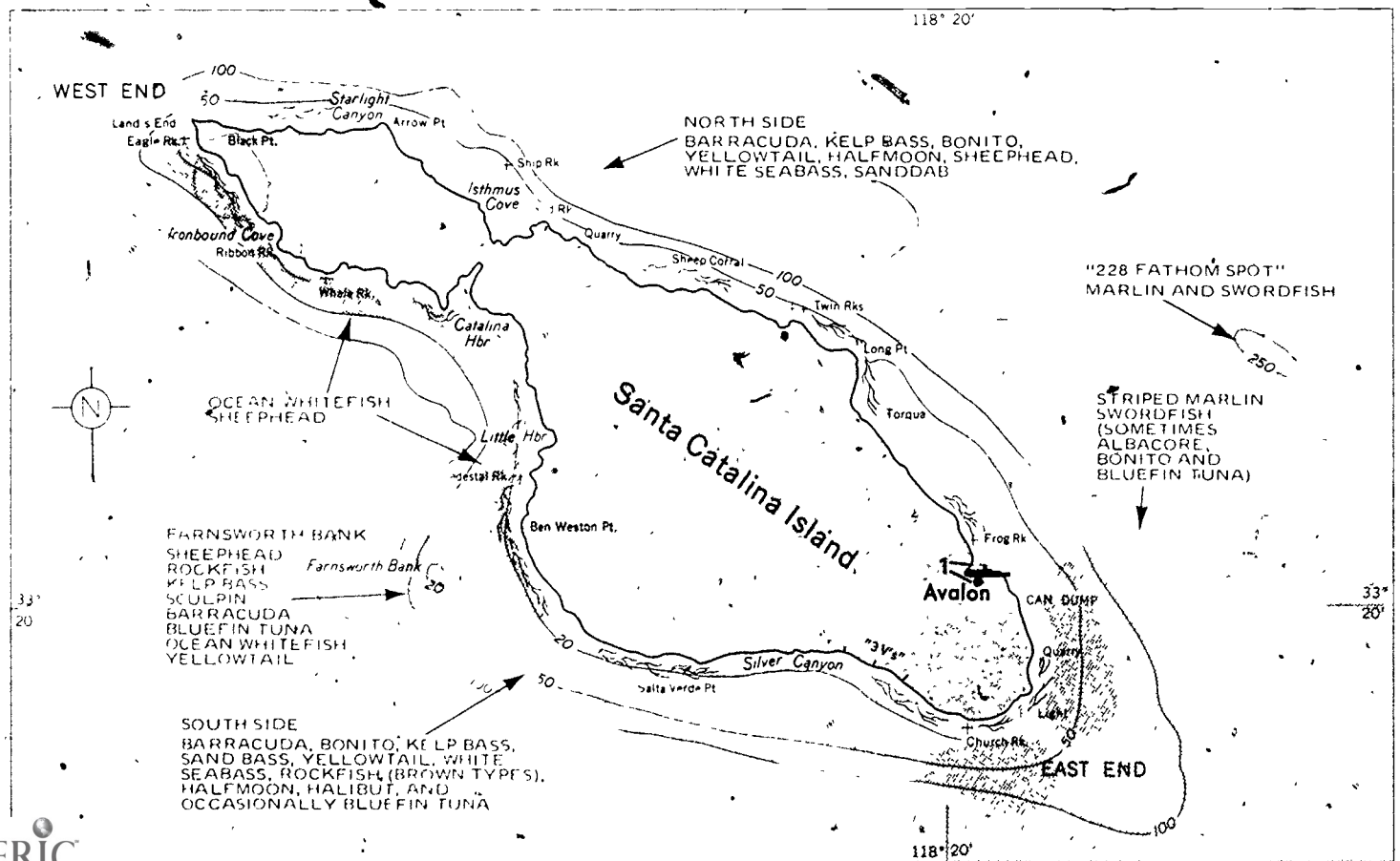
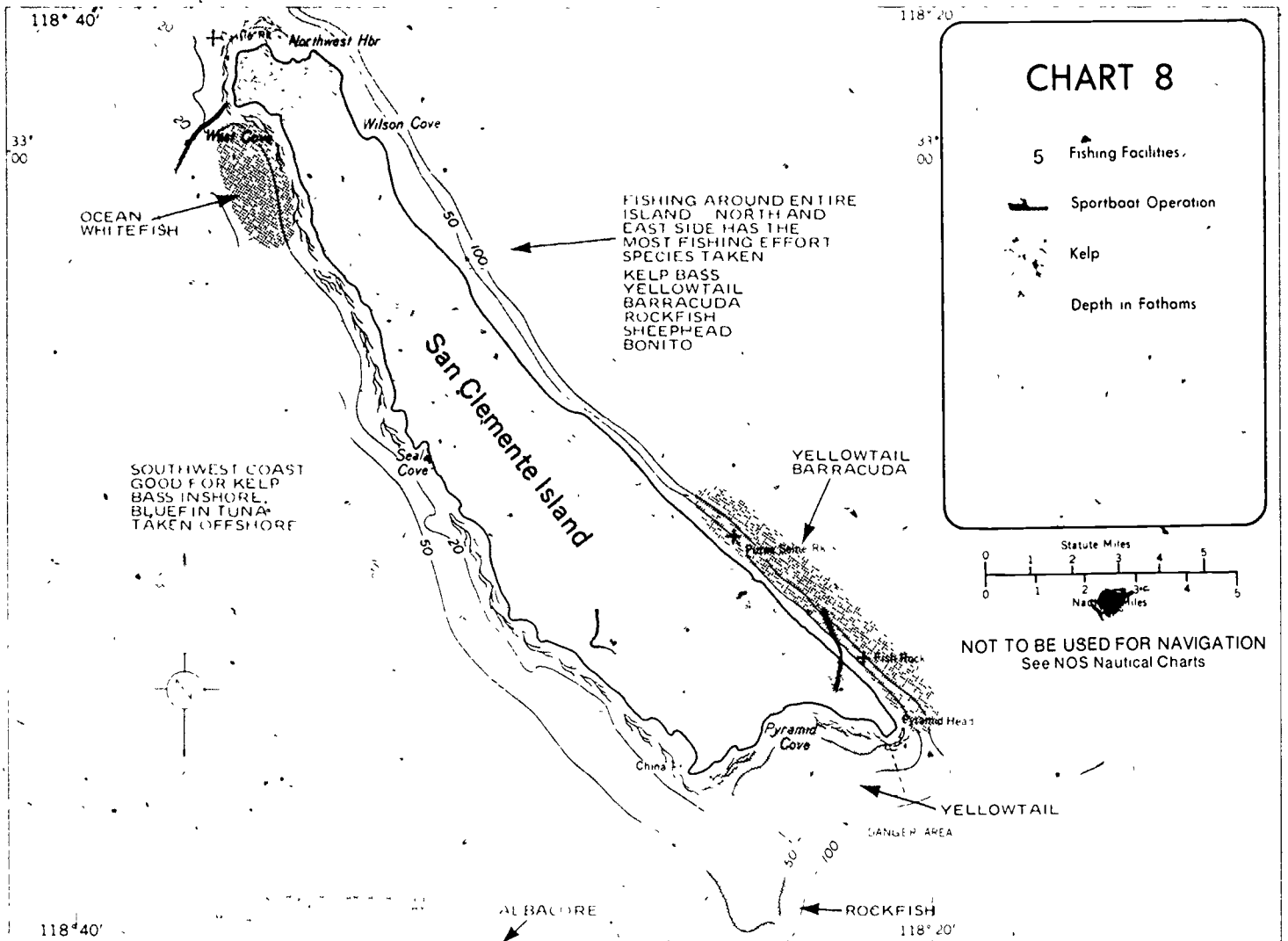
The island is about 18 miles long and from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  miles wide; its highest elevation is about 1,900 feet. The coastal shelf is narrow, particularly on the northeast side. The shore is rocky, and the bottom types nearshore are a mixture of rock, mud, and sand. This type of substrate allows kelp to attach, and kelp patches are common with the most prominent growths at the north end. Kelp also is found along the west side with concentrations around China Point and just west of Pyramid Head at the southern end. Caution must be exercised in fishing the south end of the island since it is frequently used for naval target practice. Information on scheduled military activities and restricted zones is published in the local Notice to Mariners. Along the northeast side, to about 20 fathoms in depth, there is kelp. The kelp growth is close to shore owing to the sharp slope of the bottom.

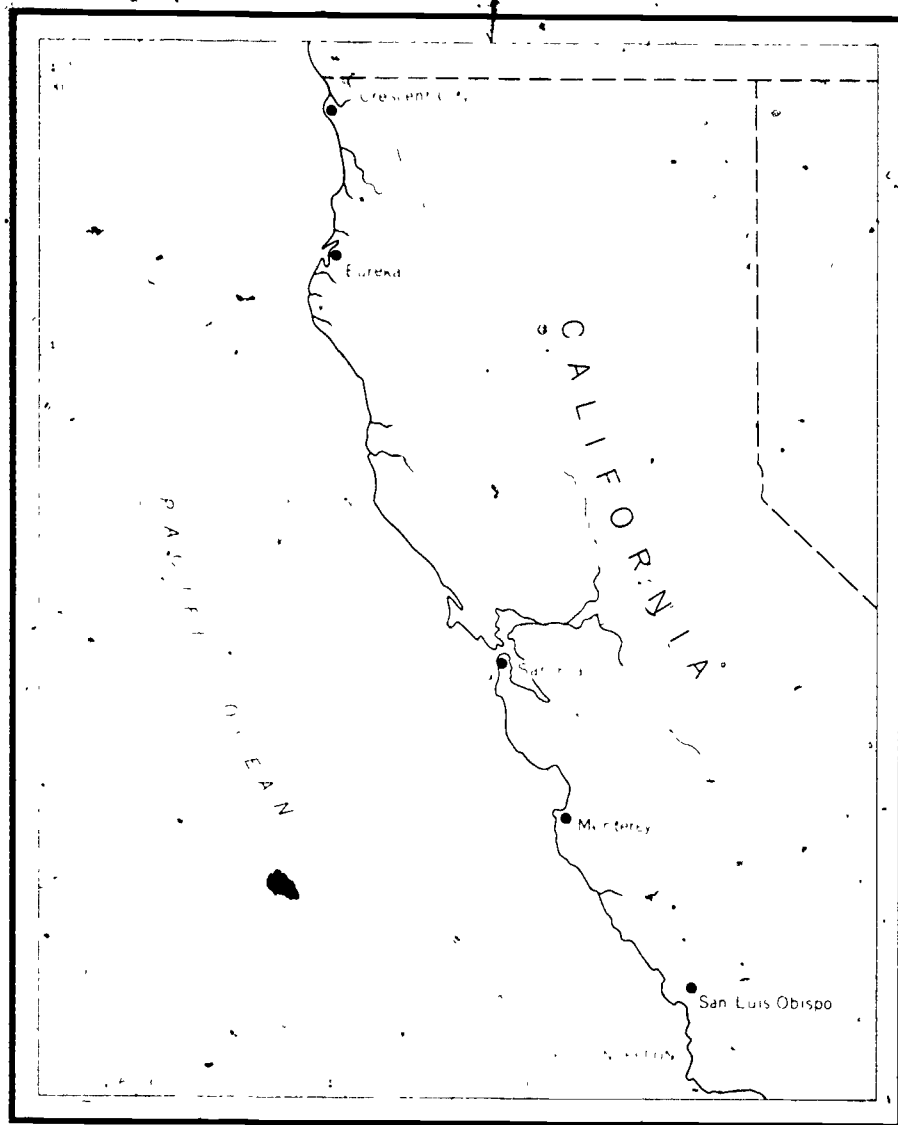
Sport fishing boats from the Los Angeles area frequent the island, and most of the fishing is at about the north end and along the east side. Species taken are listed on the chart. Three well-known grounds are "Slide Area," "Purse Seine Rock," and "Fish Hook"—all on the east side. Good fishing is also found along the southwest side, although it is more exposed to the northwest winds and rough seas. Bluefin tuna sometimes are found along the southwest side, and albacore are frequently caught south and southwest of the island during the summer.

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1 ● ● ●

Avalon, Catalina Island





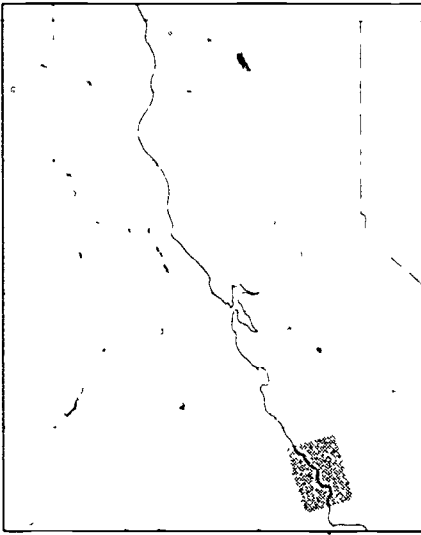
## NORTHERN CALIFORNIA

From Point Conception north, the coastline is rugged and relatively unprotected from the force of the sea and prevailing northwest winds. These winds deflect surface waters offshore, creating vertical currents that bring up cold, nutrient-rich bottom water from the depths in a process called "upwelling." In northern California, major upwelling begins in spring, and the inverted bottom water is often 5° to 10°F colder than the sun-warmed surface water it replaces. This is why the seawater north of Point Conception is relatively cold in summer compared to other areas in the same latitude and why summer and winter sea temperatures vary only a few degrees.

The weather along this coast is fairly uniform with early morning and evening fogs, cool weather during summer, and rainy winters. The air temperature has no great peaks or dips during the course of the year.

Anglers who fish the northern California coast should be

aware that sea and weather conditions can change rapidly, and some areas can be extremely dangerous at times. Check locally before fishing unfamiliar territory and take a tide book with you. When choosing a shore fishing spot, first observe the waves along shore and while fishing always glance up periodically to check sea conditions. The tide has a way of coming in with unexpected rapidity, and one can become stranded very easily. Never fish alone along unprotected rocky stretches of the open coast; and when you plan a boating trip, always leave word about your destination and when you expect to return. Reports are received each year of people swept from rocks and small boats overturned by unexpected waves of great size, or swept out to sea by strong currents. Experienced anglers, even those who fish the same area year after year, abide by these rules. They have learned to respect the inconsistent nature of the sea along this rugged expanse of open coast.



## 9/ Point Sal to Point Piedras Blancas

The section of coast described in Chart 9 is the first major marine game fishing area north of Point Conception. The coastline alternates between broad sandy beaches and rocky headlands and is backed by low rolling hills. Shore anglers cast from sandy beaches for surfperch and bait cast and poke-pole along rocky shores. Steelhead run up creeks November through February during years of heavy rainfall. Offshore bottomfishing is good year-round, and albacore, salmon, and bonito are available seasonally. In some years, white seabass also add to the sport catch.

In addition to angling, abalone picking and clamming are very popular in this region, which has one of the heaviest concentrations of pismo clams along the California coast.

### POINT SAL TO POINT BUCHON

The San Luis Obispo Bay area has offshore bottomfishing for rockfishes and, to a lesser degree, lingcod and cabezon. In general, blue, gopher, olive, and copper rockfishes are taken in the nearshore skiff fishing areas, while bocaccio, rosy, vermilion, chilipepper, starry, and yellowtail rockfishes tend to dominate the party boat catches farther offshore. California halibut are taken over sandy bottom in San Luis Obispo Bay and areas to the south; bonito and white seabass are sometimes taken from summer to late fall. Boats also go out for chinook (king) salmon from early spring to midsummer when good runs develop, and occasionally a few coho salmon are caught.

Fishing is available at Pismo ch pier, the county pier in Avila.

and at the Port San Luis pier. Jacksmelt, surfperches (calico, walleye, silver, shiner, and barred), sculpin, white croaker, and young bocaccio usually form most of the catch; sometimes queenfish and an occasional white seabass are landed. Barracuda often are taken from the Pismo pier in September and October.

At the south end of Pismo Beach State Park, surf anglers cast for barred, calico, and silver surfperches and jacksmelt. Farther north along the rocky coastline between Shell Beach and Avila, anglers fish from shore for kelp greenling, lingcod, and cabezon. At low tide, poke-polers at Shell Beach search rocky crevices for monkeyface eels, cabezon, and greenlings.

### MORRO BAY AREA

Morro Bay, its picturesque fishing fleet set against the backdrop of a 576-foot-high Morro Rock, is a town that draws many visitors during the summer and fall. Party boats operate year-round, weather permitting. The catch of the Morro Bay party boat fleet is similar to that of Avila boats, with albacore contributing to the sport catch during the fall. Many sport boats fish exclusively for this species when it runs off the coast, and best fishing is usually in September and early October—some years the run may last well into December. Albacore are known to come as close as 6 miles from shore, but fishing usually takes place from 10 to 20 miles out.

Small-craft fishermen fish the waters in and outside of Morro Bay Harbor, but currents around the harbor entrance and unpredictable weather make it advisable to check with the harbor master at the Municipal Pier for information on tides, currents, channel areas, etc., if you plan to venture outside the harbor. Inside Morro Bay, skiff anglers catch starry flounder, California halibut, jacksmelt, leopard and brown smoothhound sharks, rays, and walleye, black, and shiner surfperches. Outside in the ocean, the small-boat catch is similar to the nearshore party boat catch—blue, gopher, and copper rockfishes, cabezon, and lingcod.

There is pier, dock, and bank fishing along the shores of Morro Bay for starry flounder, jacksmelt, and surfperches (shiner, walleye, and black). Some of the rocky coves along the causeway leading out to Morro Rock are especially good for surfperches (striped, walleye, black, and barred), as well as starry flounder, cabezon, monkeyface eel, jacksmelt, and occasionally lingcod. The powerplant outfall on the north side of Morro Rock is another productive place to fish for surfperches, and infrequently a striped bass wanders in, attracted

	FACILITY	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●						Pismo Beach Pier
2	●						Avila County Pier
3	● ●	● ●					Port San Luis Pier
4	● ● ● ● ●						Morro Bay
5	●						Cayucos
6	● ●	●					San Simeon

\*Summer only.

by the warm discharge water. Fishing from the jetty at the harbor mouth is discouraged because of unpredictable seas at the harbor entrance.

Ocean-shore fishing for barred surfperch takes place along the sandy spit that separates the bay from the sea. This is also a popular clamming area. Access is by way of a road approaching from the south (four-wheel-drive vehicles only) or by boat. A "Clam Taxi" based at the foot of Fourth Street shuttles passengers across the bay to the spit when weather permits.





### AREAS TO THE NORTH

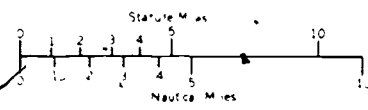
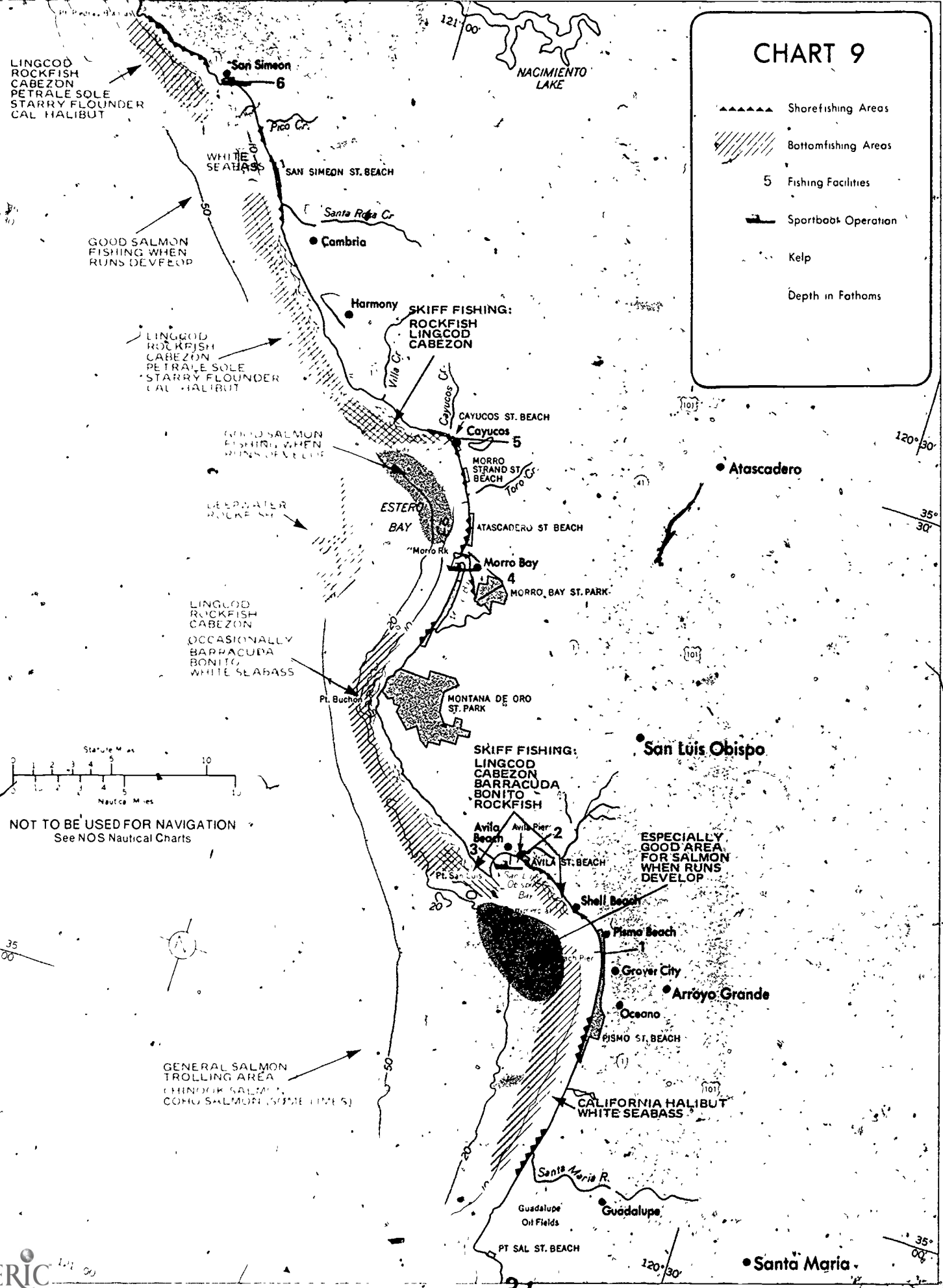
North of Morro Bay the shoreline is characterized by sandy beaches interrupted by rock- and boulder-strewn shores, affording excellent fishing. Calico, silver, and barred surfperches are taken along sandy shores, and from rocky stretches there is bait casting for cabezon, striped, surfperch, grass rockfish, and kelp greenling, and poke-poling for eels.

At the Cayucos Pier, jacksmelt, white croaker, queenfish, staghorn sculpin, and young bocaccio are the usual fare. Starry flounder, surfperches (walleye, shiner, silver, barred, and spotfin), and an occasional swell shark also are caught. North of the pier there is rocky-shore fishing for kelp greenling, calico and silver surfperches, and cabezon. Cayucos Beach has grunion runs during spring and summer and is the northernmost beach in California with grunion runs.

Around the Point Estero area,

# CHART 9

 Shorefishing Areas  
 Bottomfishing Areas  
 5 Fishing Facilities  
 Sportboat Operation  
 Kelp  
 Depth in Fathoms



NOT TO BE USED FOR NAVIGATION  
 See NOS Nautical Charts



GENERAL SALMON TROLLING AREA  
 (CHINOOK SALMON, COHO SALMON, (SOME TIMES))

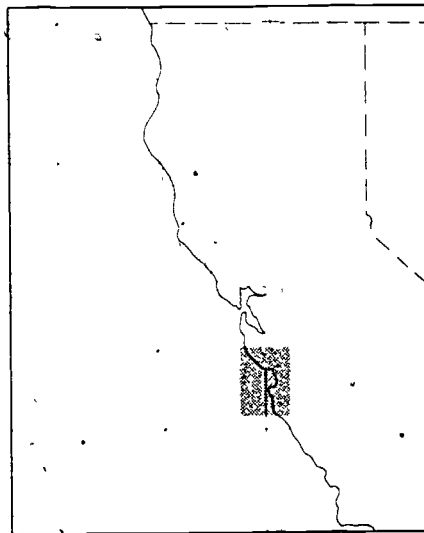
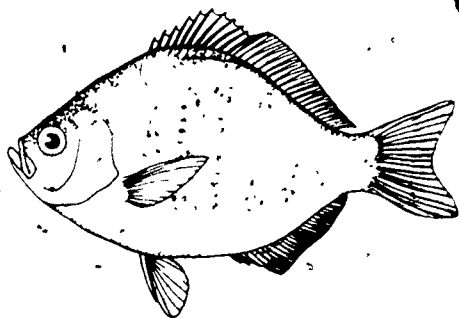
Route 1 swings inland through farm country and there is no access to shore until you reach the Cambria-San Simeon area.

At San Simeon, anglers fish from the pier for starry flounder, California halibut, skates, and surfperches (barred, calico, and silver), and occasionally catch a salmon or a steelhead. There is shore fishing around the mouths of streams for barred and calico surfperches and lingcod; at times, these streams are good for steelhead during years of heavy rainfall.

Party boats operate from the San Simeon pier during summer, fishing mostly for bottom species, although trips are made for chinook salmon when a good run develops. This section of the coast has no skiff launching facilities, but small boats are sometimes launched over the beaches in calm weather. Most skiff fishing takes place from May to September.

Along the rocky stretch of coastline from San Simeon Point north to Point Piedras Blancas, shore fishing is excellent for surfperches (calico, barred, silver, and striped), kelp greenling, grass rockfish, and cabezon. Most shore areas are open to the public.

North of Point Piedras Blancas the topography becomes precipitous as Route 1 winds its way toward the towering cliffs of the Big Sur coast. There is little access to shore along this majestic route for over 60 miles until one reaches Point Lobos and the Carmel-Monterey Bay area (Chart 10).



## 10 Monterey Bay Area

Along this scenic stretch of California coast (Chart 10) rainy days alternate with days of crisp sunshine during winter, while spring brings blustery weather as prevailing northwesterly winds intensify. During summer, fog cools most of the coast, while autumn days are often warm and sunny as the onshore winds decrease, bringing little fog to the area. The weather along the northern shore of Monterey Bay differs somewhat, particularly around Santa Cruz, which is protected from the prevailing winds by the curve of the land. This area is almost fog-free during summer.

Monterey Bay is an important recreational fishing area, and an impressive number and variety of marine game fish are taken here. Most sport fishing from party boats is for bottomfish (particularly rockfishes) although albacore, bonito, and chinook salmon also are landed in season. In some years salmon are abundant in the bay in spring and good fishing may last till late summer. In general, the major marine sport fishes caught from boats and from shore are rockfishes, chinook salmon, California halibut, Pacific sanddab, surfperches, lingcod, kelp greenling, white croaker, and albacore.

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1	●*	Pacific Grove
2	●●●●	Monterey Harbor
3	●●●●	Moss Landing Harbor
4	●	Kirby Pk., Elkhorn Slough
5	●	Seacliff Pier
6	●●●●	Capitola Pier
7	●●●●	Santa Cruz Harbor
8	●●●	Santa Cruz Pier

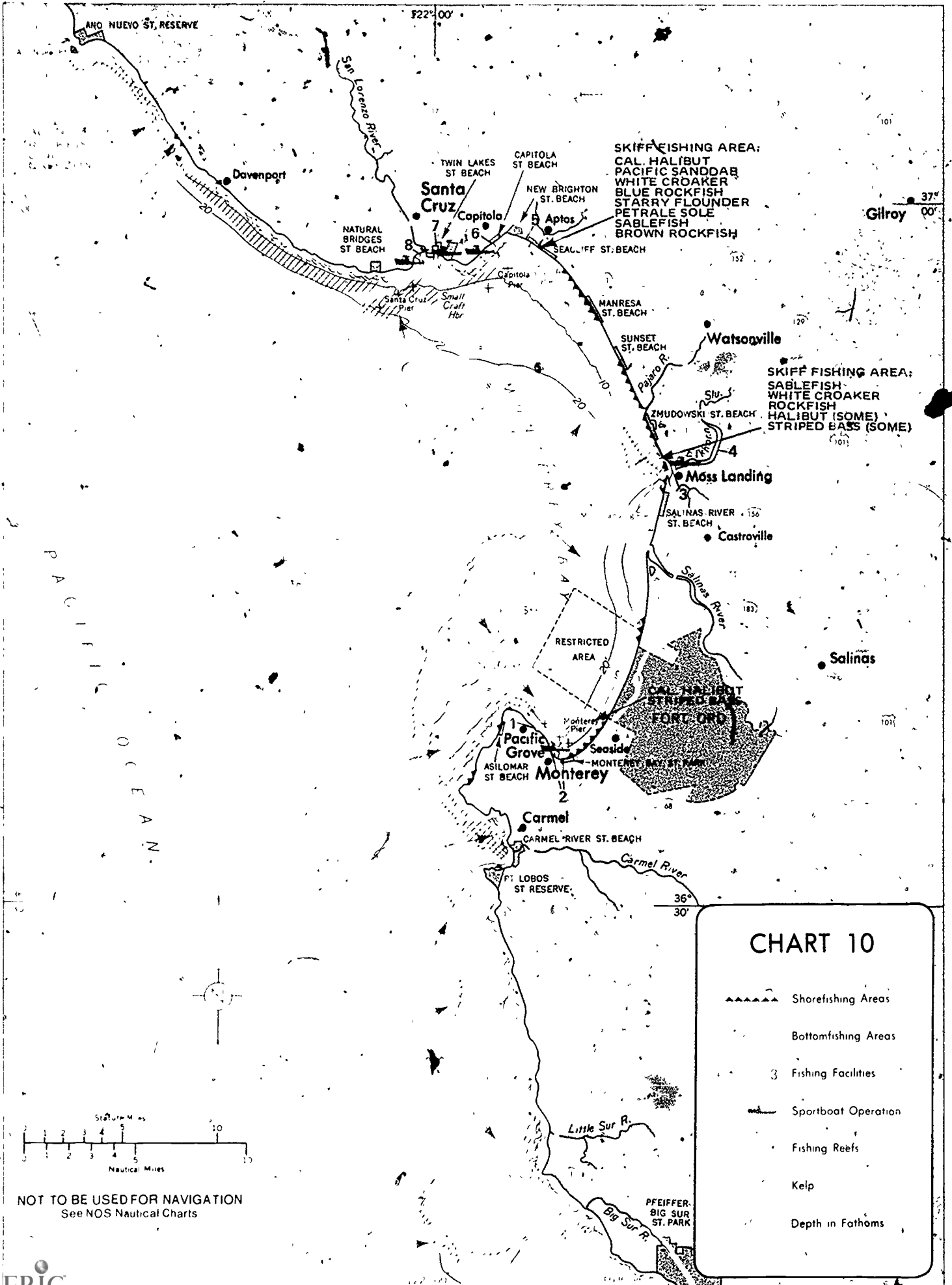
\*Summer only  
\*\*Intermittently

### SHORE AND PIER FISHING

As one approaches the Monterey Bay area from the south, there is little access to shore along this rugged section of the coast as State Highway 1 makes a gradual descent out of the mountainous Big Sur country and then passes through rolling coastal hills before dropping down to sea level about a mile south of Carmel. Where the shoreline can be reached there is excellent rocky-shore fishing for lingcod, kelp greenling, cabezon, striped surfperch, and rockfishes (kelp, blue, grass, and olive).

Shore fishermen can reach the beaches of the Monterey Peninsula from the south by way of 17-Mile Drive (toll road), which has a south entrance at Carmel, or by approaching from the northeast through the town of Monterey. Along scenic 17-Mile Drive, shore fishing is allowed at Fanshell Beach, just north of Cypress Point, in Pacific Grove at Asilomar State Beach,





and between Point Pinos, and Lover's Point. Some of the more common species taken by shore anglers at these locations are striped surfperch, kelp greenling, cabezon, and blue rockfish. Sometimes steelhead are caught around the mouth of the Carmel River in fall after heavy rains, but fishing, even at its best, is considered spotty.

The town of Monterey has two public piers, but most fishing takes place from Municipal Pier #2 at the eastern end of the harbor. Here the catch is young bocaccio, blue rockfish, surfperches (sharpnose, pile, and shiner), jacksmelt, white croaker, and, some years, jack mackerel in summer.

Broad sandy beaches rim the coast from the Monterey Peninsula north along the inner curve of the bay all the way to Seacliff State Beach. Most beaches offer excellent fishing for a variety of sandy-shore fishes. Striped bass sometimes are taken by surf casters during the summer along beaches from Monterey north to the Salinas River. (Check locally about fishing the Fort Ord area—beachfront restrictions change from day to day.) All beaches north of the Salinas River offer excellent surf fishing for sand sole, jacksmelt, and surfperches (barred, calico, silver, and walleye). There also is surf netting for night smelt in summer along beaches adjacent to Moss Landing.

At the entrance to Moss Landing harbor, anglers fish from the jetty for surfperches (rubberlip, black, pile, white, and walleye), starry flounder, and occasionally California halibut and striped bass. There is also fishing from shore inside Elkhorn Slough for some of the surfperches above plus sharks, rays, sand sole, and starry flounder.

The northern end of Seacliff State Beach, near Aptos, has a fishing pier (actually a cement ship) from which anglers catch Pacific sanddab, surfperches (shiner, walleye, barred, and striped), white croaker, jacksmelt, small bocaccio, jack mackerel (during some summers), and an occasional California halibut, starry flounder, lingcod, salmon, and steelhead.

Rocky outcroppings and low bluffs begin to interrupt sandy beaches north of Aptos, and rocky-shore fishes start to appear in the angler's catch, finally replacing sandy-shore fishes in importance as one proceeds westward.

At the Capitola pier, which is mostly ~~over~~ sandy bottom, the usual fare is white croaker, jacksmelt, small bocaccio, walleye and shiner surfperches, cabezon, staghorn sculpin, and an occasional barred surfperch.

To the west at the Santa Cruz pier, anglers catch both rocky and sandy shore fishes such as surfperches (white, shiner, walleye, and a few barred), lingcod, cabezon, young bocaccio, kelp rockfish, topsmelt, jacksmelt, staghorn sculpin, skates, Pacific sanddab, sand sole, starry flounder, and white croaker. There is now an artificial tire reef under this pier. Rockfishes are taken from Santa Cruz Small-Craft Harbor jetties, and in some years coho salmon and steelhead are taken around the mouth of the San Lorenzo River.

From Natural Bridges State Beach north to Año Nuevo Point the shoreline changes rather abruptly to a predominantly rocky coastline, and fog and blustery northwest winds once again sweep the coast. This rocky shoreline offers excellent shore fishing for kelp greenling, cabezon, grass rockfish, and surfperches (calico, walleye, rainbow, striped, and silver). Where the rocky shoreline is broken occasionally by short stretches of sandy beach, netters work the surf from Scott Creek northward for surf and night smelts from March to October.

#### PARTY BOAT FISHING

Commercial sport fishing boats operate year-round out of Monterey and Santa Cruz and intermittently out of Capitola and Moss Landing.

The fleet based at Monterey, which fishes mainly for rockfishes, has expanded its range over the past 10 years. Boats now travel as far south as Point Sur (a major fishing ground), whereas most fishing previously took place north of Castle Rock. Blue, yellowtail, and olive rockfishes dominate the party boat landings although an assortment of other rockfish species also contribute to the catch. Those taken in the shallower nearshore areas along the kelp are blue, olive, black, copper, starry, and rosy rockfishes. In deeper water spots, in Monterey Bay and off Point Sur the

yellowtail, blue, widow, bocaccio, and greenspotted rockfishes predominate. Monterey party boat anglers also take lingcod, Pacific sanddab, Pacific bonito (in summer, September best), sablefish, and albacore (late summer). In most years, albacore schools appear about 10 to 15 miles offshore, usually in water about 61° to 64°F.

Along the north shore of Monterey Bay, Santa Cruz and Capitola party boats fish over the rocky reefs from Point Santa Cruz north to Año Nuevo Point for rockfishes, lingcod, and cabezon. The Año Nuevo grounds are exceptionally good for lingcod and blue and black rockfishes. Other rockfishes entering the party boat catch along this northern section of the coast include copper, olive, brown, yellowtail, widow, greenspotted, bocaccio, and chilipepper—the last five in deepwater areas. Party boats also go after chinook salmon during the season when good runs develop (best catches usually in May and June). Along the north shore, the party boats catch other fishes such as bonito, sablefish, petrale sole, rock sole, Pacific sanddab, and kelp greenling.

#### SKIFF FISHING

Most of the Monterey Bay area skiff catch is made up of several species of rockfishes, Pacific sanddab, chinook salmon, and lingcod. Most small-boat fishing takes place inside Monterey Bay, although on calm days Monterey skiff anglers occasionally venture out around the peninsula between Point Pinos and Cypress Point to fish for lingcod and some of the nearshore rockfishes, or try their luck in Carmel Bay.

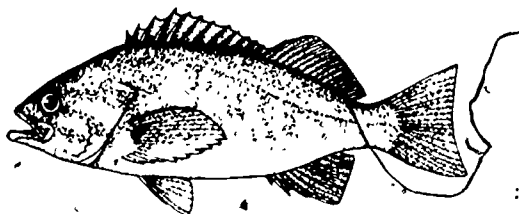
Inside Carmel Bay, skiffs work along the edge of the kelp for lingcod and rockfishes; sometimes, in summer, jack mackerel and bonito make a showing in the bay. Occasionally, salmon are taken when a good run develops. Skiff anglers making the trip around the Monterey Peninsula to Carmel Bay are warned that the return trip can be extremely rough, if not impossible, on all but the calmest days.

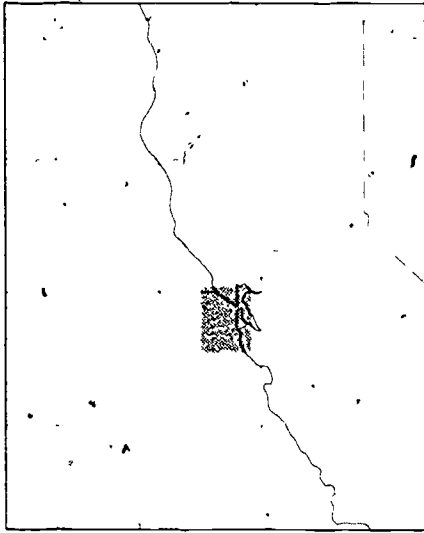
thin Monterey Bay, from early to late summer, skiff anglers

troll for chinook salmon in areas shown on the chart. Pacific sanddabs are plentiful over sandy bottom, and California halibut are taken trolling just beyond the surf line during summer and fall. The area south of the Salinas River is closed by the military when Fort Ord target ranges are in use, so check locally before fishing this section of the bay. Warning flags are flown from the Coast Guard breakwater in Monterey when this area is restricted.

Skiff anglers out of Moss Landing on Elkhorn Slough fish both the tidewater section of the slough and outside in Monterey Bay. The area around the entrance is particularly good for Pacific sanddab, sablefish, white croaker, and occasionally California halibut. Salmon trolling is very popular with Moss Landing skiff anglers, who actively fish in the bay for chinook salmon during the season (June and July considered best). Surfperches are particularly abundant inside the slough, the most common species being rubberlip, black, pile, white, and walleye. Jacksmelt, sand sole, staghorn sculpin, starry flounder, and sharks and rays also are common in the estuary. A shark derby is held in Moss Landing each year.

To the north and west, skiff anglers who fish off Capitola bring in a mixed catch of blue rockfish, white croaker, Pacific sanddab, jacksmelt, and California halibut. Boats also work the area off the Seacliff pier and to the south for California halibut, starry flounder, white croaker, petrale sole, and sablefish. To the west, Santa Cruz small-boat anglers fish mainly the reef and kelp areas for rockfishes (blue, grass, and brown), lingcod, and cabezon, or troll along the sandy beaches to the east for halibut in summer. During the salmon season boats work the area between Sunset Beach and Davenport.





## II. Approaches to San Francisco Bay

Chart 11 covers the ocean approaches to the major port city of San Francisco—fishing inside San Francisco Bay is covered separately. (See Chart 12.)

The climate along this coast is cool and temperate with little seasonal variation in air temperature. During summer, San Francisco's famous fog funnels in through the Golden Gate mornings and evenings, drawn inland by the warming of the Central Valley.

Most offshore recreational fishing is for chinook salmon from spring through fall, although bottomfish tend to dominate the sport catch in areas south of San Pedro Point where salmon runs occur less predictably. In most years, migrating albacore are taken around the Farallon Islands in fall.

### PIGEON POINT TO HALF MOON BAY

The main angling activities from Pigeon Point to Bean Hollow State Park (once Arroyo de los Frijoles and Pebble State beaches) are rock fishing and poke-poling from shore. From Bean Hollow State Park north to Pillar Point the shore is alternately sandy beach and rocky outcroppings. Along this coast, striped bass begin to enter the shore anglers' catch during summer and early fall; some of the better locations are Pescadero State Beach, San Gregorio State Beach, Martins Beach, and Half Moon Bay State Beaches. These are also good areas for surfperches (calico, silver, and occasionally redbtail) and for netting surf and night smelts (March to October).

Pillar Point Harbor on Half Moon Bay is the major recreational fishing port along this section of coast, and party boats based at the harbor fish

over nearshore and offshore reefs for lingcod, cabezon, and rockfishes (blue, copper, olive, and yellowtail). Occasional bottomfish trips are made to the Farallon Islands, and albacore are sometimes taken west of the Farallons from August to October. Small-boat anglers actively fish for salmon when the fish make a showing nearshore, or fish on the bottom around the entrance to the harbor and north along Pillar Point for rockfishes (blue, black, canary, copper, and olive), lingcod, cabezon, and white croaker.

Inside Pillar Point Harbor, anglers fish from the Princeton Pier for Pacific sanddab, white croaker, surfperches (silver, walleye, and shiner), jacksnelt, topmelt, brown smoothhound shark, skates, staghorn sculpin, and rockfishes (brown, small bocaccio, and kelp). Anglers also fish from the east and west jetties that partially enclose the harbor. At the west jetty the catch consists mainly of striped surfperch, kelp greenling, cabezon, grass rockfish, and occasionally lingcod. From the east jetty, they catch sandy bottom species such as white croaker, starry flounder, sand sole, and rubberlip surfperch.

### PILLAR POINT NORTH TO THE GOLDEN GATE

North of Pillar Point the coast becomes rocky once again until you reach Montara State Beach—a narrow, coarse-sand beach backed by sandstone bluffs. Here surf casters take surfperches (silver, redbtail, and calico) and catch striped bass during the summer.

North of the State Park, Highway 1 is above steep sandstone cliffs and access to shore is difficult, if not dangerous, especially around the Devils Slide area. Many hikers have lost their lives on this unstable cliff, and the hazardous warning signs should be heeded.

At Point San Pedro on Shelter Cove, skiffs can be rented and launched when weather permits. The area off the Point is especially good for rockfishes (black, blue, and canary), lingcod, and white croaker. During good salmon years, chinook are landed off the Point in spring and summer; striped bass are taken from boats and from shore during late summer and fall.

The coast north of Point San Pedro has no party boat operations, skiff rentals, or launching facilities; all these facilities are in San Francisco Bay (Chart 12). However, a public fishing pier has been constructed recently at Pacifica. From Pacifica north to the Golden Gate the coast is mostly sandy beach, and it is along these beaches that the heaviest runs of striped bass occur in the surf. The

map shows some of the more popular fishing spots, although this entire coast is good for striped bass when they are running. One of the most heavily fished places is Bakers Beach near the Golden Gate Bridge. These ocean beaches are also good bait-casting areas for redbtail surfperch during winter and spring, and, at times, for jacksnelt and other surfperches (silver, calico, and walleye).

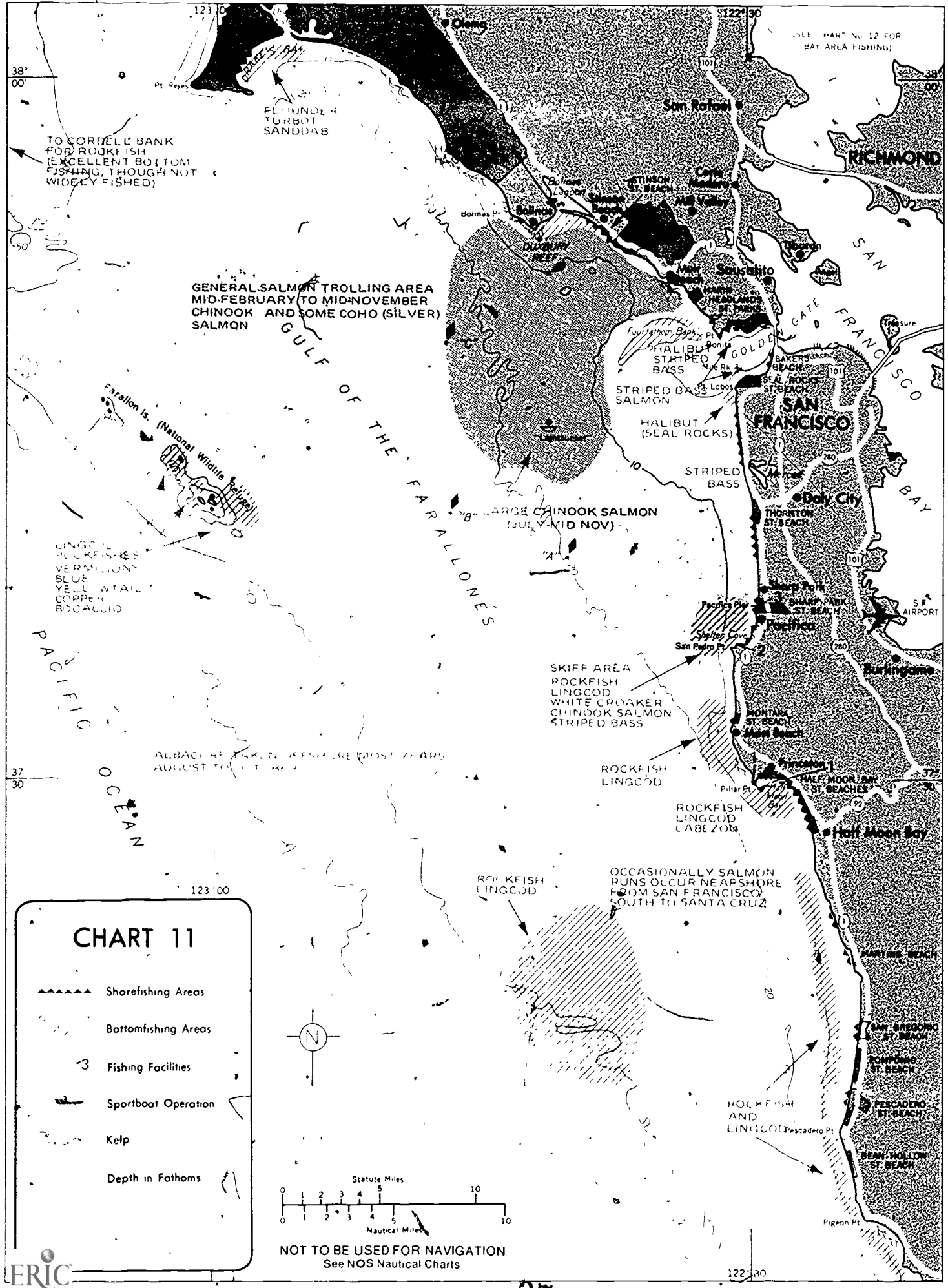
The Gulf of the Farallons is fished primarily by San Francisco Bay party boats and occasionally boats from Half Moon Bay. This area produces the most consistent ocean sport fishing for salmon in the State. Most fishing is for chinook salmon, although some coho also are landed. The season extends from mid-February through mid-November (check State regulations), and there are two major chinook runs—one in the spring and one in the fall. During the height of the spring run from about March to June, most fishing occurs offshore between Duxbury Reef and the Farallon Islands, while from July to mid-October the fish are taken closer to shore. The most productive area for large fall-run chinook extends from the San Francisco light buoy, or "light bucket," former site of the San Francisco lightship, to the Marin County beaches and north to Duxbury Reef, where fishing is best from July through September. The Golden Gate area, especially around Mile Rock and the south tower of the bridge, is also a good fishing spot in midsummer and fall for striped bass and occasionally salmon.

When salmon are not running, boats may fish for rockfishes (yellowtail, bocaccio, copper, blue, and vermilion), and lingcod around the Farallon Islands, and occasionally travel as far west as Cordell Bank, about 20 miles west of Point Reyes.

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- 1 ● ● ● ● ● Princeton, Half-Moon B.
- 2 ● ● ● ● ● San Pedro Point
- 3 ● ● ● ● ● Pacifica Pier

\*Launching skiff for rental boats only. Car-top boats are launched from beach.



### CHART 11

- Shorefishing Areas
- Bottomfishing Areas
- Fishing Facilities
- Sportboat Operation
- Kelp
- Depth in Fathoms

Statute Miles

Nautical Miles

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

There is some skiff fishing for chinook salmon off Muir and Stinson beaches in late summer, but weather and sea often restrict small-boat fishing in the ocean. Fourfathom Bank (also called Potato Patch Shoal) can get particularly rough on windy days, but in calm weather this sandy shoal area is a good fishing spot for California halibut and striped bass. California halibut are also taken around Seal Rocks and to the south (July and August best).

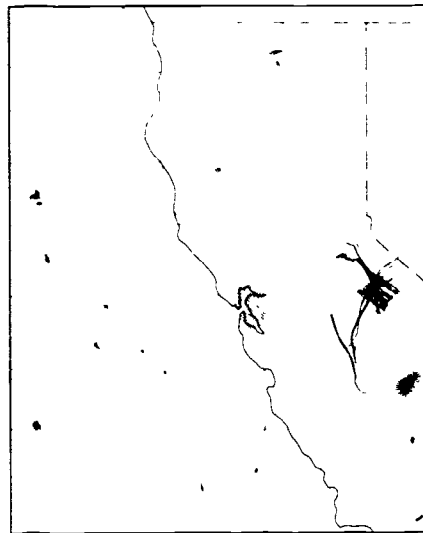
SHORE FISHING NORTH OF THE GOLDEN GATE

Only a limited amount of shore fishing takes place along the rugged rocky coast from the Golden Gate Bridge north to Stinson Beach. Access is difficult in most places, and much of the beachfront land is privately owned. Striped bass occasionally are caught from shore in summer and fall along isolated sandy coves near the Golden Gate (Fort Baker, Fort Barry, Fort Cronkite, and at Muir Beach). From Muir Beach to Stinson Beach, where rocky shores can be reached, anglers fish for blue rockfish, lingcod, cabezon, kelp greenling, and surfperches, or poke-pole for monkeyface eels at low tide. This stretch of coastline can be dangerous during rough weather; it is advisable to fish here only on calm days and always keep an eye out for changing sea conditions.

At Stinson Beach State Park, rocky shores abruptly give way to a long and wide expanse of sandy beach where surf anglers cast for surfperches (redtail, silver, and walleye).

There is no fishing in Bolinas Lagoon. The State Health Department has quarantined this shallow tidal embayment for an indefinite period because of its heavily polluted waters. Occasionally, striped bass are taken at the entrance of the lagoon, but fishing is generally spotty. Most of the rocky semiexposed reef area at Duxbury Point has been designated a Marine Reserve; however, shore fishing is allowed.

To the north along the sandy shores of the Point Reyes Peninsula, there is bait casting for redtail, calico, walleye, and silver surfperches.



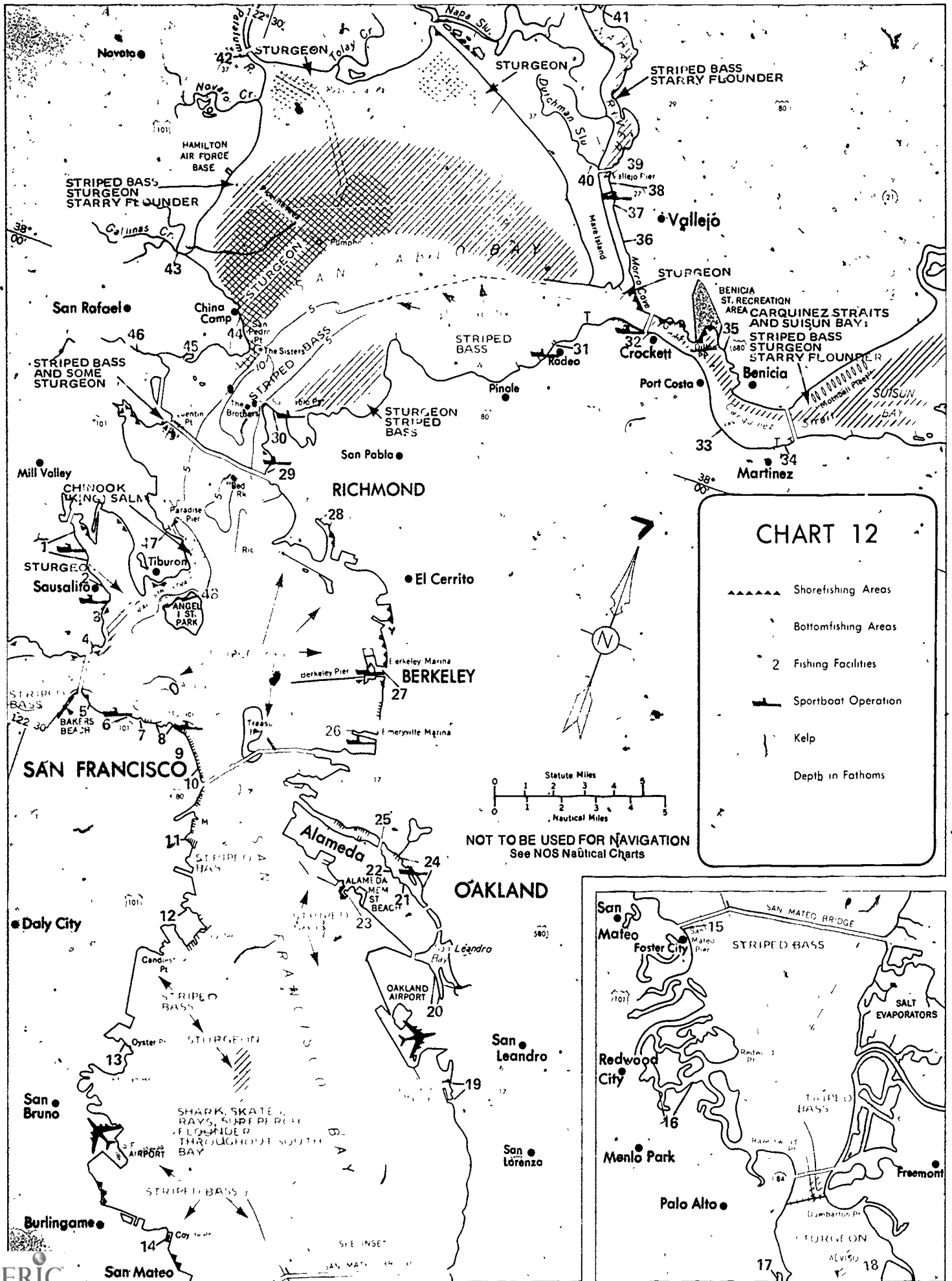
12 San Francisco Bay

San Francisco Bay (Chart 12), California's largest estuary, technically is divided into three connecting bays—San Francisco Bay proper, San Pablo Bay, and Suisun Bay. These bays receive large volumes of freshwater runoff from the extensive Sacramento and San Joaquin River systems that drain California's Central Valley and have their source in the Sierra Nevada. In general, most of the San Francisco Bay system is very shallow—the average depth is 20 feet—and there are extensive mudflats in San Pablo Bay and south San Francisco Bay.

The two most sought-after game fishes in the San Francisco Bay area are the striped bass and chinook salmon. Most salmon fishing takes place in the ocean outside the Golden Gate (see Chart 11), while San Francisco Bay is practically the unrivaled domain of the striped bass angler. Other fishes such as sturgeon, starry flounder, surfperches, jacksmelt, topsmelt, white croaker, rockfishes, sharks, and rays also offer a great deal of sport to Bay Area anglers.

The angler certainly will not find this area lacking in recreational fishing facilities. Piers, skiff rental

	FACILITY	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●	●					Kappas Yacht Harbor
	●						Sausalito Boat & Tackle
	●	●					Clipper Yacht Harbor
2		●					Turney Street Ramp
3	●	●					Sausalito Yacht Harbor
4	●	●					Fort Baker
5	●	●					Fort Point, Presidio
6	●	●					Golden Gate Y. H., S.F.
7	●	●					S.F. Small Craft Harbor
8	●	●					Fisherman's Wharf Area
9	●						Pier #7, San Francisco
10	●						Ferry Building, S.F.
11	●	●					Mission Rock Area, S.F.
12	●	●					Hunter's Point, S.F.
13	●						Oyster Point
14	●						Coyote Point
15	●						San Mateo Pier
16	●	●					Redwood Creek
17	●	●					Palo Alto Harbor
18	●						Alviso
19	●	●					San Leandro Marina
20	●	●					Doolittle Drive
21	●	●					Grand Street, Alameda
22	●	●					Pacific Marina, Alameda
23	●	●					Ballena Y.C., Alameda
24	●	●					Oakland Inner Harbor
	●	●					Oakland Marina
	●	●					Oakland Inner Harbor
25	●	●					Jack London Marina
26	●	●					Emeryville Marina
27	●	●					Berkeley Marina
28	●	●					Richmond Harbor
29	●	●					Red Rock Marina
30	●	●					San Pablo Yacht Harbor
31	●	●					Rodeo
32	●	●					Crockett, Dowdello's
33	●	●					White's Resort
34	●	●					Martinez
35	●	●					Benicia Pub. Boat Ramp
36	●	●					Vallejo
37	●	●					Vallejo
38	●	●					Vallejo Heights
39	●	●					Vallejo Municipal Pier
40	●	●					Dutchman Slough
41	●	●					Mud Slough
42	●	●					Petaluma River
43	●	●					Gallinas Creek
44	●	●					China Camp
45	●	●					Loch Lomond Marina
46	●	●					San Rafael Creek
47	●	●					Paradise Pier
48	●	●					Angel Island State Park



**CHART 12**

- Shorefishing Areas
- Bottomfishing Areas
- 2 Fishing Facilities
- ⚓ Sportboat Operation
- ⌋ Kelp
- Depth in Fathoms

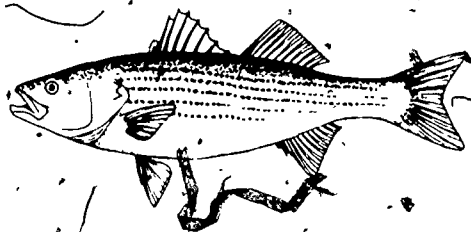
NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

concessions, and launching facilities are scattered around the bay's perimeter, and over 100 party boats operate out of Bay Area ports. There are sizable sport fishing fleets near Fisherman's Wharf in San Francisco, along the Sausalito waterfront, and at the Berkeley and Emeryville marinas. Many of these boats fish out in the ocean for chinook and coho salmon; some make rockfish trips to the Farallon Islands; and most also fish for striped bass when good runs develop. In the northern reaches of the bay, party boats operating out of San Pablo Bay and Carquinez Strait ports fish exclusively for striped bass, sturgeon, and starry flounder. Charters usually can be arranged at harbors from which boats operate, although in San Francisco, trips are usually arranged through bait and tackle shops because of parking and other logistics problems in the city.

#### STRIPED BASS

Striped bass spawn from about April to mid-June in fresh waters of the Sacramento and San Joaquin rivers. After spawning, the fish move back down into the saltwater bays; some venture out into the ocean. They spend most of the summer and fall in salt water before returning once again to brackish-water and freshwater sloughs and rivers. Although best fishing times vary with area, in general, the fishing season extends from March to December, with best fishing from mid-August to November. October has been the best striped bass fishing month consistently since 1969.

In San Pablo Bay, Carquinez Strait, and Suisun Bay, striped bass are caught year-round with best



fishing usually in October and November, with a lesser run of fish in June, July, and August. Most spring and summer fish are caught trolling in the late afternoon. Fall-run fish are caught still fishing or drifting, primarily with live bait such as staghorn sculpin (known locally as "bullheads").

In the Napa River and nearby brackish-water sloughs along the northern shore of San Pablo Bay, striped bass are caught throughout the year although weather sometimes restricts fishing during the winter months. Best times are considered to be September, October, and November, peaking usually in late October. Fish are taken by bait fishing and trolling from boats; bait casting from shore.

Within San Francisco Bay proper, in such areas as the Golden Gate Bridge (south tower), Raccoon Shoal (over Raccoon Shoal), Berkeley flats, and off Alcatraz and Treasure islands, fishing usually starts in June and extends through October into November. Most fish are caught after mid-August, with peak catches in October. A popular fishing method is drifting with live bait (anchovies or shiner surfperch) in areas where an abrupt change in depth occurs and when the current is running swiftest.

Anglers also troll for stripers, and some will even get out their plug casting gear when a surface-feeding school is located. From Angel Island north to The Brothers, good striped bass fishing can usually be had in September, October, and November by drifting live bait and trolling as fish migrate through on their way back to the Sacramento-San Joaquin Delta.

Shore and pier fishermen cast lures and bait for stripers from selected spots on both sides of the bay. (See chart for shore-fishing areas and piers.) Shore fishing at night for striped bass is now legal in the Bay.

The striped bass season in south San Francisco Bay extends from June through September, and in some years fishing may last until November or December. Fishing usually reaches a peak around the San Mateo Bridge area in June and July and around the Dumbarton Bridge in September and October. Most striped bass fishing in south San Francisco Bay is a trolling affair with some plug casting when a school is found. Also, a growing number of anglers are fly fishing from shore for striped bass in spring and again in late summer around San Francisco Airport and Coyote Point.

#### STURGEON

Sturgeon fishing has become very popular in the Bay Area over the years, especially in San Pablo Bay, Carquinez Strait, and Suisun Bay. A small but growing sturgeon fishery is also developing in south San Francisco Bay from off Oyster Point (San Bruno Shoals) south to the entrance of Alviso Slough. Both green and white sturgeons are taken; the white sturgeon is the most prized.



Although sturgeons are caught throughout the year in the upper bays, best fishing is usually in the fall and winter when the biggest fish are taken. In San Pablo Bay, they appear to move in over the flats in early fall, and fishing usually lasts from November to May, with best catches from about January to March. The flats along the north side of the bay from the Mare Island jetty ("Rockwall") to China Camp are especially productive at high tide during the winter. Other good spots in San Pablo Bay are the "pump house" and around the odd-numbered buoys that mark the north side of the main channel which cuts through the middle of the bay. There is also year-round fishing in Carquinez Strait over the flats along the northern shore. Smaller fish taken are in summer, larger ones in winter.



In Suisun Bay, fishing usually starts in spring around April and lasts until October or November, about the time of the first rains. In summer, most Suisun sturgeon are sublegal size (less than 40 inches long) with about 1 "keeper" out of every 10 caught. Larger fish are taken in the fall. The "mothball fleet" and the channel buoys along the edges of sand bars near the entrance to the bay are good areas to fish.

In south San Francisco Bay from San Bruno Shoals south to Alviso Slough, the season extends from about November to March. Early season

fishing is usually best in the northerly areas; late season fishing is usually best in the more southerly areas along the edge of the channel.

Sometimes during the Pacific herring runs, which occur anytime between December and March, sturgeons are taken from boats and shore in the central part of the bay in such areas as Richardson Bay and along the Sausalito waterfront.

#### OTHER BAY SPORT FISHES

Although most salmon are taken outside the Golden Gate, migrating chinook salmon sometimes are caught deep trolling with whole anchovies in the area from the Golden Gate to Raccoon Strait and off the Tiburon Peninsula north to the Richmond Bridge during late summer. The area off the eastern side of the Tiburon Peninsula (called "California City" by anglers) is heavily fished when the salmon are running.

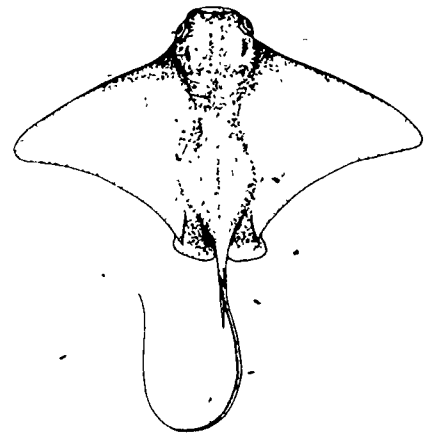
Sharks, skates, and rays are plentiful throughout the bay; some of the more common types are leopard, brown smoothhound and sevengill sharks, spiny dogfish, bat ray, and big skate. These are especially numerous in south San Francisco Bay all year. Most fishing, however, takes place in summer and fall.

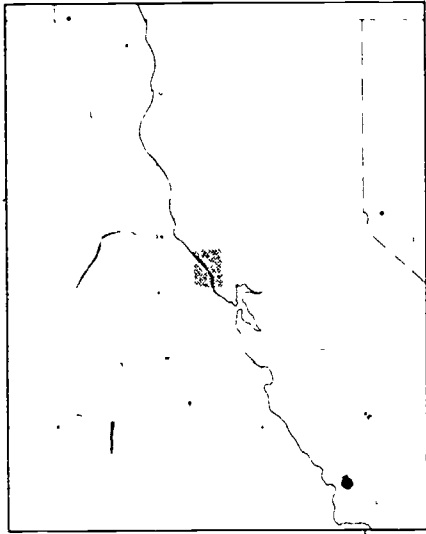
Starry flounder are abundant, especially over the flats in San Pablo and Suisun bays and in the Napa River and adjacent sloughs. Many are taken in these areas, and throughout the bay system, by shore and skiff anglers (winter and spring best).

An assortment of surfperches also are taken in San Francisco Bay—mostly from piers and from shore. Spring is considered the best

season. Some of the more common species are shiner, walleye, white, rubberlip, black, pile, striped, and rainbow surfperches.

Other fish prevalent in the pier and shore catch include white croaker ("kingfish"), staghorn sculpin ("bullhead"), jacksmelt, topsmelt, English sole, sand sole, small lingcod, and brown and black rockfishes. In addition, Pacific herring are taken with dip nets during their spawning runs in winter (December to March). In some years the herring run will last for weeks; in other years the fish will show up sporadically. The appearance of great numbers of gulls and other seabirds usually heralds the event. At this time there is also a small recreational fishery for herring eggs-on-kelp, which some consider a delicacy. The most popular shore areas to dip net and collect herring eggs-on-kelp are along the Sausalito and Tiburon waterfronts.





### 13 Point Reyes to Fort Ross

Along this rural and often wind-swept part of the coast (Chart 13), party boats operate year-round, weather permitting, out of Bodega Harbor and Dillon Beach. Most offshore fishing is for bottomfish—particularly rockfishes or "rock cod." Some boats also fish for chinook salmon when the fish are running, but, in general, salmon appear less predictably here than off San Francisco and areas to the north.

The range of the party boat fleet extends south to off Point Reyes and north to Fort Ross. Areas most frequented by the fleet are Tomales Point, the 27-fathom reefs off the western shore of Point Reyes Peninsula, and areas north along the coast from Bodega Head to Fort Ross. Occasionally, special trips are made to Cordell Bank, about 23 miles southwest of the Bodega Harbor entrance. Most of the party boat catch is made up of rockfishes (yellowtail, blue, yelloweye or turkey-red, chilipepper, bocaccio, canary, black, and copper). Other rocky-bottom fishes such as cabezon and lingcod also are caught along with an occasional chinook. Lingcod appear to be more plentiful in the northern areas off Fort Ross than in areas to the south, and flatfish are sometimes taken incidentally as boats drift over from rocky to sand bottom.

North of Tomales Point and in Tomales Bay the salmon season is open all year but fishing for chinook is often erratic even at the peak of the season (July, August, and September). Coho make a modest showing around October and November.

#### SKIFF FISHING

Skiff fishing is generally limited to confines of Tomales Bay and under the entrance to Bodega

Harbor. Experienced boat anglers familiar with the area sometimes venture farther out to fish for salmon or bottomfish, but this practice is not without its risks. Many people (up to 13 in 1 year) have lost their lives at the entrance to Tomales Bay, where huge waves are known to appear and capsize boats with little warning. Strangers to the area would do well to stay within the protection of the bay.

Inside Tomales Bay, small-boat anglers fish for sharks and rays, California halibut (June to October), sand sole, turbot, jacksmelt (September to November best), and an assortment of surfperches. Sharks are particularly plentiful in the bay, and every year a Shark and Stingray Derby is sponsored by local civic groups. Striped bass sometimes are caught in the southern reaches of the bay in summer. The lower bay also has a small run of coho salmon which are caught trolling during October and November, and some steelhead are taken as they make their way to Papermill Creek to spawn (November to February).

In Bodega Harbor, a narrow channel cuts through this shallow lagoon to the boat basin at the town of Bodega Bay and into deeper water at the harbor's northwest corner. There is a limited amount of skiff fishing for surfperches, and starry flounder in deepwater parts of the lagoon, and steelhead occasionally are taken around areas of freshwater seepage.

To the north, skiffs and launching are available at Jenner on the Russian River. In addition to winter steelhead and salmon fishing (September to November), there is skiff fishing inside the tidal lagoon for surfperches and starry flounder. Small boats do not venture into the ocean because the outlet, or "bar," at the Russian River mouth is often too narrow for skiffs.

#### SHORE FISHING

Selected areas of this coast offer many different types of shore fishing, including casting along sandy beaches for redbtail and other kinds of surfperches, pier and dock fishing in bays and harbors, stream and river fishing for salmon and steelhead, poke-poling and bait casting along rocky shores, and netting smelts around river and creek mouths. Spring and early summer are best for surfperches, steelhead fishing is best in fall and winter following heavy rains, coho salmon appear in the fall from September to November, surf and night smelts are netted March through October, and most rocky-shore fishes are taken year-round.

The sandy beaches along the Point Reyes Peninsula provide good surf fishing for redbtail, calico, and walleye surfperches. Most of the peninsula is

FACILITY NUMBER	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	LOCATION
1	● ●				Inverness
2	● ●				Tomales Boat Basin
3	●				Marconi Cove
4	●				Marshall
5	● ● ●				North Shore Boats
6	● ●				Nick's Cove, Miller Park
7	● ●				Lawson's Landing
8	● ● ●				Doran Park
9	● ●				Tides Wharf
10	● ●				Shaws Marina
11	● ●				Westside Park
12	●				Jenner

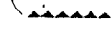
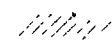




within the boundaries of the Point Reyes National Seashore, and though much of the land is still under the private ownership of ranchers, some beaches are open to the public and it is expected that even more shore areas will be open in the future.

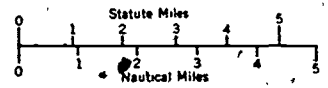
Along the Tomales Bay shore, pier and dock fishing is available at some of the small-boat harbors and wharves. Jacksmelt and surfperches (pile, walleye, shiner, and black) are the most common pier-caught species. At the very southern end of the bay, coho salmon are taken near the entrance of Papermill Creek (October to November), and winter steelhead fishing is often productive in deep pools just inside the creek mouth.

On the eastern shore, near the entrance to Tomales Bay, redbtail and rubberlip surfperches are taken by shore casting along beaches north of Sand Point, and fishing is excellent for rockfish and greenlings where the sandy beach gives way to a predominantly rocky coastline north of Dillon Beach. This is also a good place for poke-poling monkeyface eels and other crevice-seeking fish. Anglers usually reach this shore area by hiking north from Dillon Beach, since most of the land adjacent to this rocky stretch of coast is privately owned.

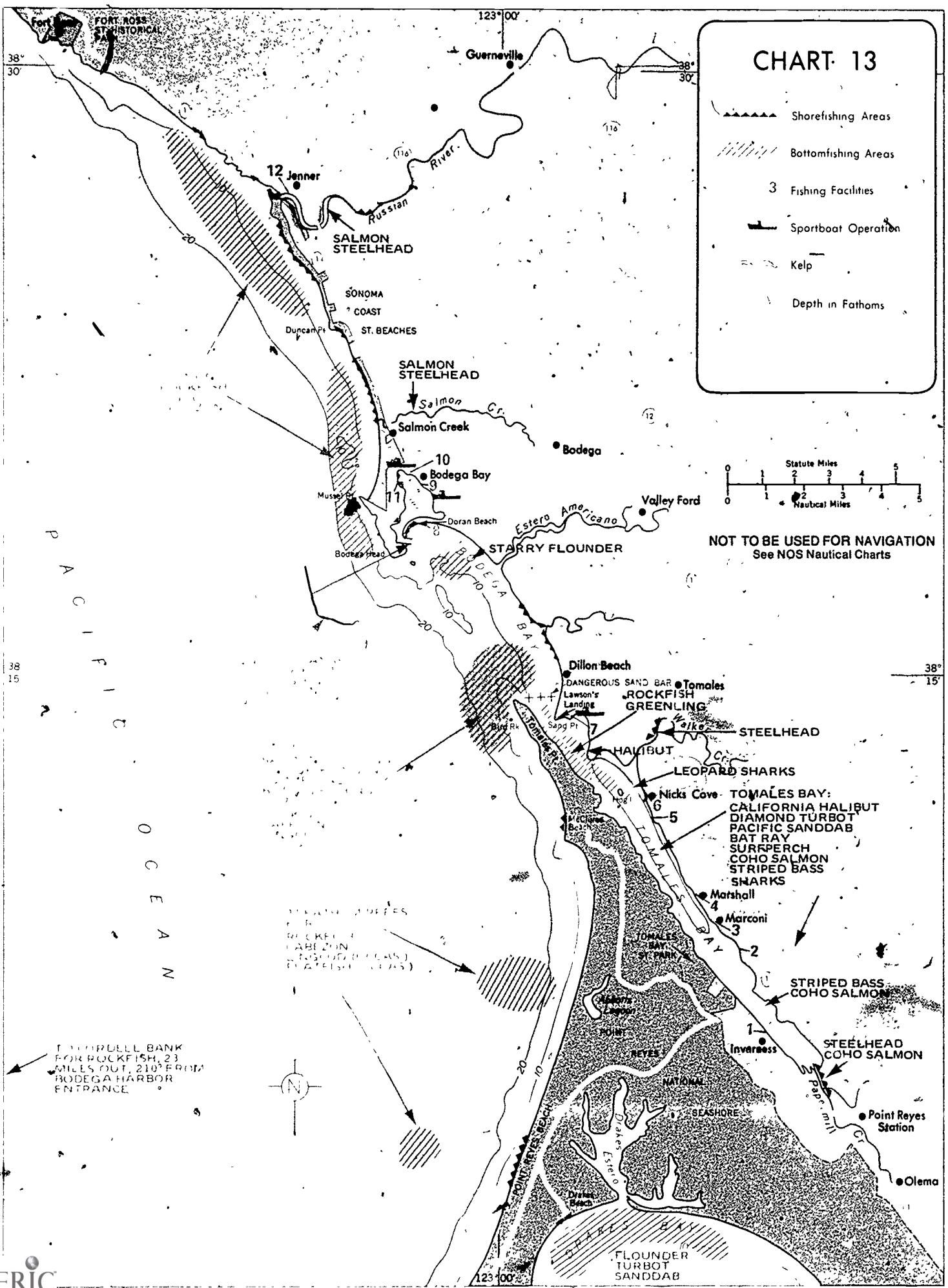
The next opportunity for shore

# CHART 13

-  Shorefishing Areas
-  Bottomfishing Areas
-  Fishing Facilities
-  Sportboat Operation
-  Kelp
-  Depth in Fathoms

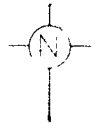


NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



PACIFIC OCEAN

EMERSON BANK FOR ROCKFISH, 23 MILES OUT, 210' FROM BODEGA HARBOR ENTRANCE



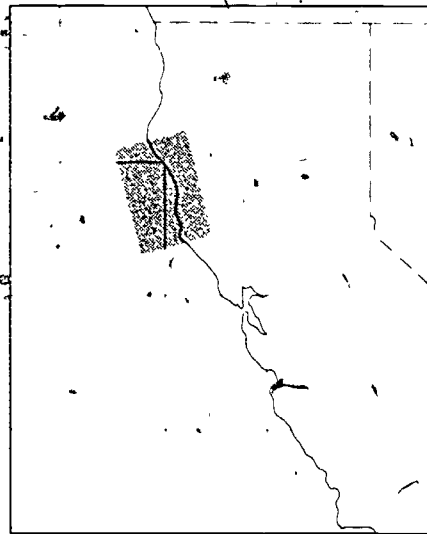
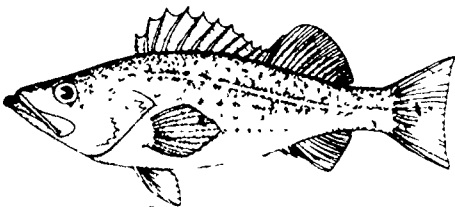
fishing as you approach Bodega Bay from the south is found at Doran Beach Park. Most fishing takes place around the east jetty at the mouth of the harbor where the usual fare is shiner and silver surfperches, jacksmelt, starry flounder, rockfishes, and greenlings. Anglers also fish from the west jetty on the other side of the harbor entrance for the same species.

In the town of Bodega Bay the public is allowed to fish from the local wharf where the main species taken are jacksmelt, young bocaccio, and surfperches (shiner, rubberlip, and black). There is some fishing along the breakwater on the western shore of Bodega Harbor for shiner and rubberlip surfperches and black rockfish.

On beaches along the Sonoma coast, anglers catch surfperches, lingcod, rockfishes, and flounder. This stretch of coast also is good for netting surf and night smelts around the mouth of coastal streams. Steelhead and a few salmon sometimes are taken from these streams.

In the Russian River, migrating steelhead are caught just inside the mouth of the river from the south bank, and in selected areas upriver. Striped bass and sturgeons occasionally are landed from boats in the estuary and from the beach adjacent to the river mouth. Surfperches and flounders are taken in the tidal lagoon section, and runs of chinook have occurred in the river during late summer and early fall in the last few years.

North of Jenner the coast becomes steep and rugged, and most of the land is privately owned. At Fort Ross State Park and areas to the north where the shore can be reached, anglers cast for rockfishes, greenlings, cabezon, surfperches, and occasionally lingcod. This rocky coastline is also very popular with skin divers and shore pickers who hunt for red abalone.



## 14 Fort Ross to Cape Mendocino

From Fort Ross to Cape Mendocino (Chart 14) the shoreline is predominantly rocky backed by high grassy bluffs. These rugged headlands are sharply indented with numerous gulches, and public access to shore occurs infrequently because of the steep terrain and the many privately owned areas adjacent to the coast. Most shore fishing occurs at coves and beaches where coastal streams and rivers empty into the sea. Winters are wet and chilly, and in summer the coast is usually fogbound. Fall is the sunniest and most pleasant time of year.

Most ocean sport fishing takes place out of the town of Fort Bragg and to a lesser extent at Albion, Point Arena, and Shelter Cove. Bottomfishing along this rocky coast is excellent, and salmon trolling is very popular.

Where the shore can be reached, rock anglers seek lingcod, cabezon, and small rockfishes, and where rocky shores are interrupted by stretches of sandy beach, surf casters fish for redbill surfperch during spring and summer (April and May are considered best). Surf netters work the breakers for surf and night smelts around the mouths of streams; best catches of night smelt are made from February to April, and for surf (day) smelt, from April through August. Steelhead run in rivers between early December and end of February, with fishing usually at its peak around New Year's day.

### FORT ROSS TO POINT ARENA.

The first access to shore north of Fort Ross is at Salt Point State Park, which has a small bluff-protected cove where skiffs can be launched over the

beach in calm weather. Fishing is not allowed inside this cove (Gerstle Cove), but when weather and sea are favorable, anglers venture out around the rocky points on either side of the cove in search of lingcod, blue rockfish, kelp greenling, and cabezon.

From Salt Point to Gualala, all land is part of a private development of houses and rental units, although there is public access to a tiny stretch of rock- and driftwood-strewn beach at the northern end of the development.

The Gualala River has excellent runs of winter steelhead, and the tidewater section is a popular fishing area. Access is by way of a dirt road at the north end of the Highway 1 bridge that leads out to the gravel bar near the mouth. Small boats can be launched here (no ramp), and the pools near the south bank are considered the most productive.

At Anchor Bay, owners of the property allow anglers access for a fee, and skiffs can be launched over the beach on the north side of the cove in calm weather. Here, skiff anglers catch such rocky-shore species as kelp greenling, blue and black rockfishes, lingcod, and cabezon. Because of the steep terrain, access to the shore is limited north of Anchor Bay to the Point Arena area.

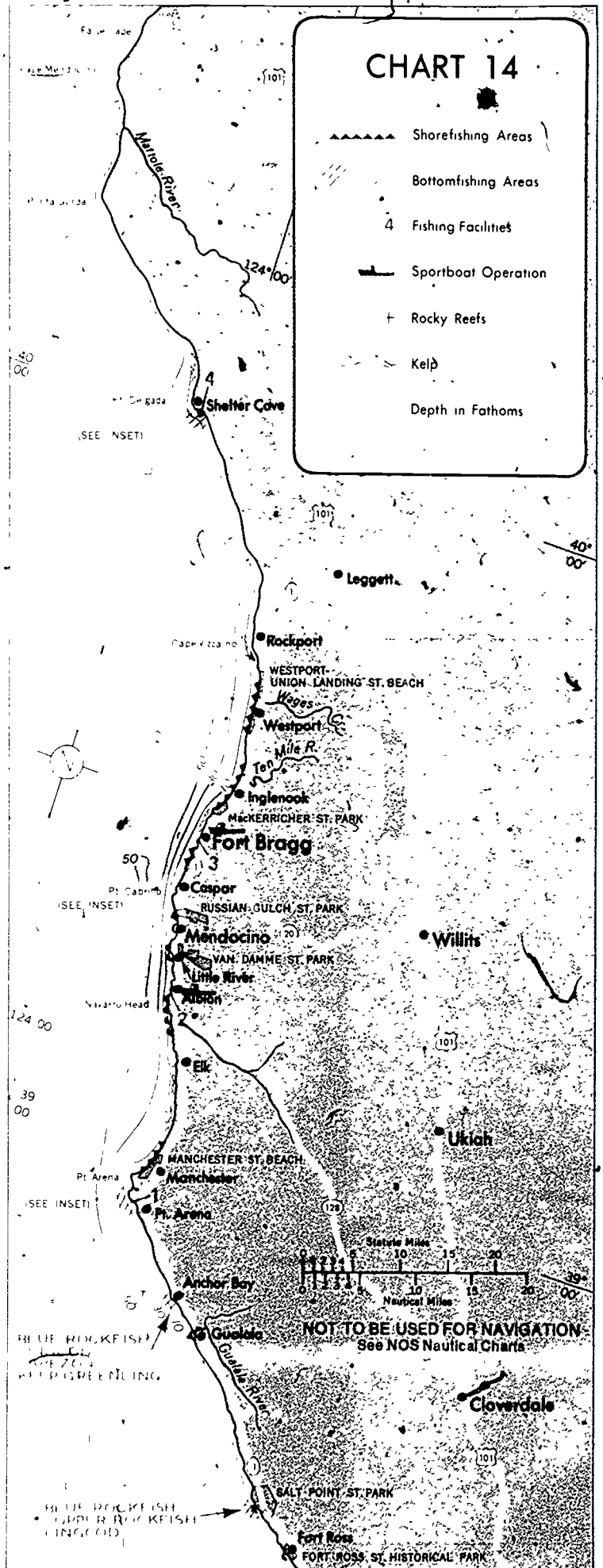
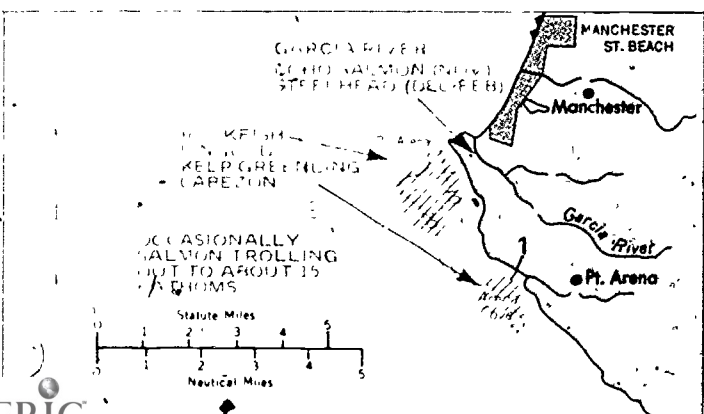
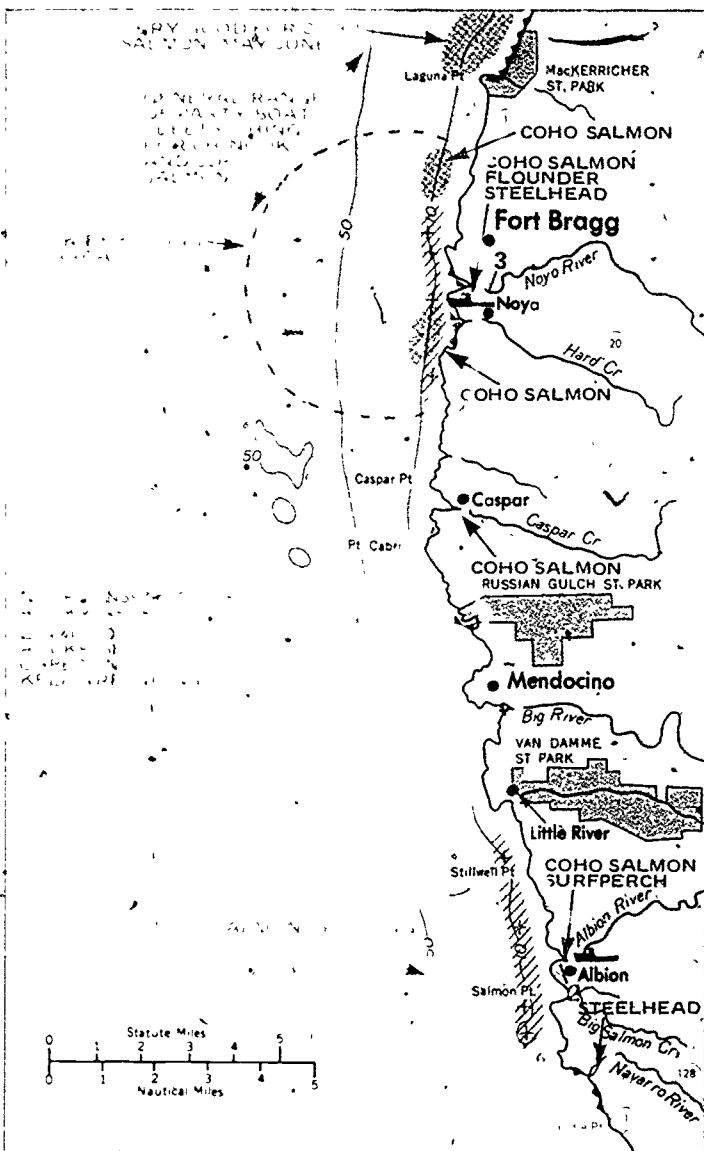
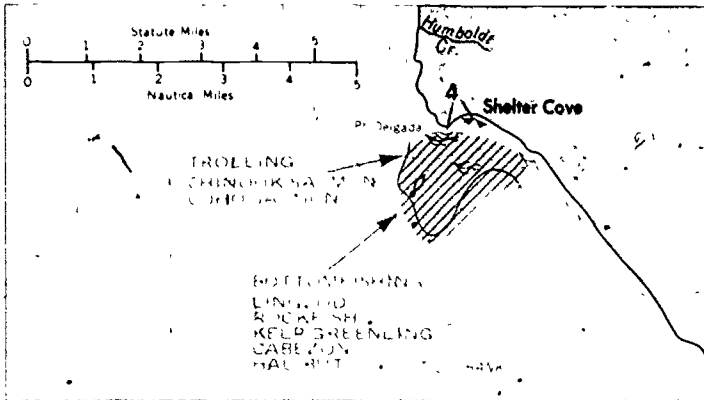
### POINT ARENA

The main fishing activities at Point Arena are pier and skiff fishing at Arena Cove. The cove would be a more important fishing port if it were not for its vulnerability to southerly and westerly winds. Skiffs are available for rent at the pier, which also has a boat hoist. Skiff anglers fish over the reef areas for bottomfish, and during July and August there is a limited amount

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- 1 ● ● ● ● Arena Cove, Point Arena
- 2 ● ● ● Albion
- 3 ● ● ● ● ● Noyo Harbor, Fort Bragg
- 4 ● ● Shelter Cove

\*Summer only.



of trolling for salmon out to about 15 fathoms. The small pier at Arena Cove is over rocky bottom, and attracts such rocky-shore species as striped and walleye surfperches, kelp greenling, black rockfish, lingcod, and occasionally cabezon.

To the north at Manchester State Beach, smelts are netted in the surf along sandy stretches and good rock fishing spots can be found at the north end. About a mile north of the State beach boundary at Alder Creek, fishing is good for surf smelt, redbait surfperch, and migrating salmon and steelhead around the creek mouth.

#### FORT BRAGG AND ALBION

Sport fishing boats operate out of Noyo Harbor, in Fort Bragg, and in some years out of Albion when weather permits. Most fishing is during the summer. The rocky reefs along this coast are extremely productive for lingcod, cabezon, kelp greenling, and rockfishes. Blue, black, yellowtail, and olive rockfishes as well as some red varieties such as copper, canary, yelloweye (turkey-red), vermilion, and chilipepper are taken. Reef areas around rocky points adjacent to the Noyo and Albion rivers' mouths are excellent spots for lingcod and red rockfish.

Offshore, anglers troll for chinook and coho salmon from May to October in water 10 to 60 fathoms deep. At the height of the season in July and August, coho move inshore to feed over reef areas, and during October and November they congregate around river and creek mouths such as the Ten Mile River, Noyo River, Albion River, Caspar Creek, and the Navarro River. During this time skiff fishing reaches its peak around the Noyo River mouth. Most ocean skiff fishing (for both salmon and bottomfish) occurs within 3 miles of the whistle buoy about a mile west of the mouth of the Noyo River. To the south at Albion River, small-boat anglers are warned that the dangerous bar at the entrance can be crossed only during certain tide stages, and then only during calm weather.

Tidewater fishing takes place in both the Noyo and Albion rivers. Inside the Noyo River, coho are taken from October to mid-December, and starry flounder are caught year-round with March bringing the best catches. Surfperches (redtail and rainbow) are caught in winter and spring (April and

May best). Surfperches, jacksmelt, and flounders are taken from piers in Noyo Harbor, and during summer and fall there is fishing from the north jetty at the river entrance for surfperches (redtail, shiner, and black), jacksmelt, kelp greenling, and small black rockfish. Striped surfperch show around the jetty during spring. The Albion River has tidewater fishing for coho in October and November; surfperches and flounder also are taken here, as in the Noyo River.

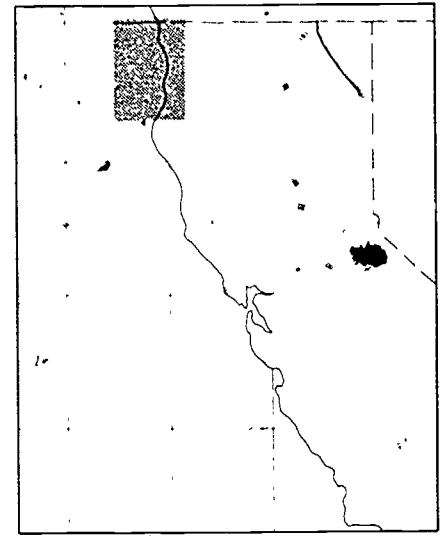
Shore anglers looking for spots to fish on the coast around the Fort Bragg-Albion area can try their luck between the towns of Elk and Albion, and at the State parks. Most of these areas have good rock fishing and poking places, and beaches are good for redbait and calico surfperches as well as surf and night smelts.

North of Mackerricher Park, smelts are surf netted around the mouths of practically all creeks—especially those between Westport and Rockport (Wages, DeHaven, Hardy, and Juan creeks). Juan Creek and the Ten Mile River also have good surf fishing for redbait surfperch, and the Ten Mile River mouth has good fall fishing for coho.

North of Rockport, State Highway 1 turns inland through mountainous terrain and redwood forest, meeting up with U.S. 101 at Leggett. Twenty-seven miles north of Leggett, an access road just north of Garberville (not shown on the map) leads to Shelter Cove, the last fishing outpost along this section of coast.

#### SHELTER COVE

Shelter Cove affords reasonably good shelter from northwesterly winds, but, like Arena Cove, it is exposed to the full force of southerly and westerly winds. Skiffs can be rented during the summer and launched from the beach with a special truck hoist. Bait and tackle also are available. Though Shelter Cove is isolated and has no docking or wharf facilities, skiff fishing here is excellent—particularly for bottomfish. Such rocky-bottom types as lingcod, cabezon, greenlings, and rockfishes (blue, black, copper, yelloweye, and vermilion) abound over the rocky reefs, and in July and August, skiffs work the cove for coho and chinook salmon. Pacific halibut are sometimes caught by skiffs, and redbait and other surfperches are taken by surf casters on the beach



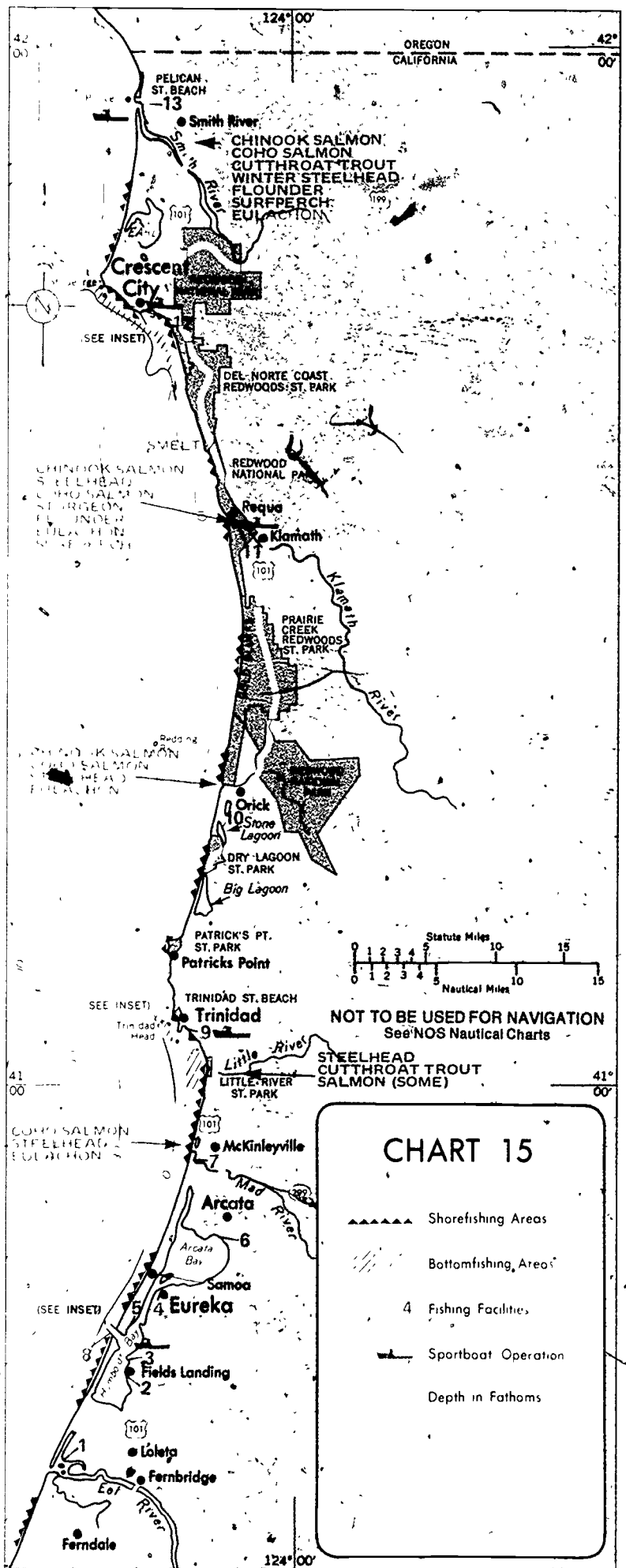
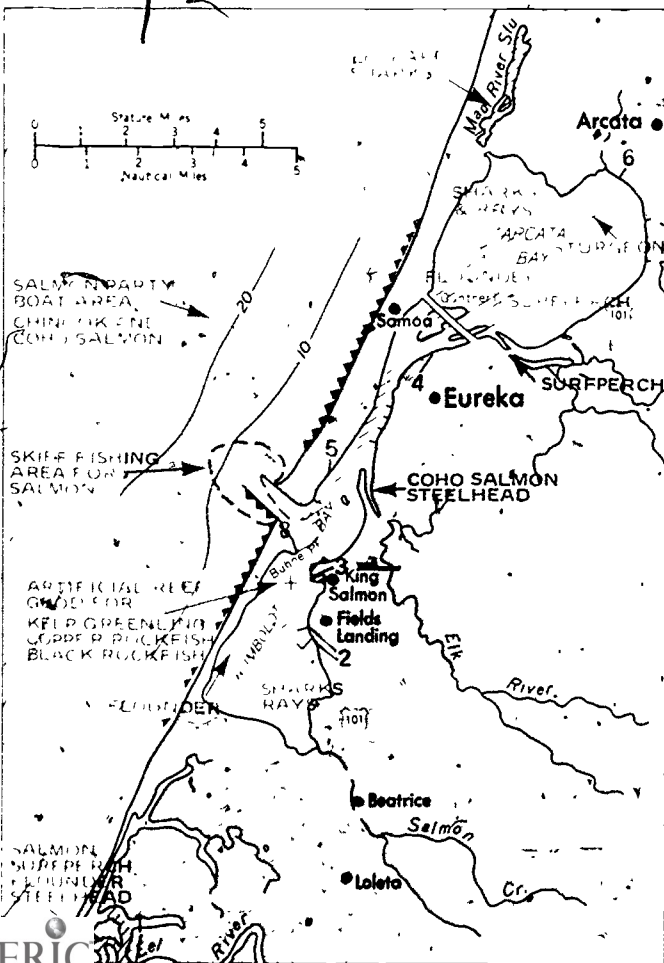
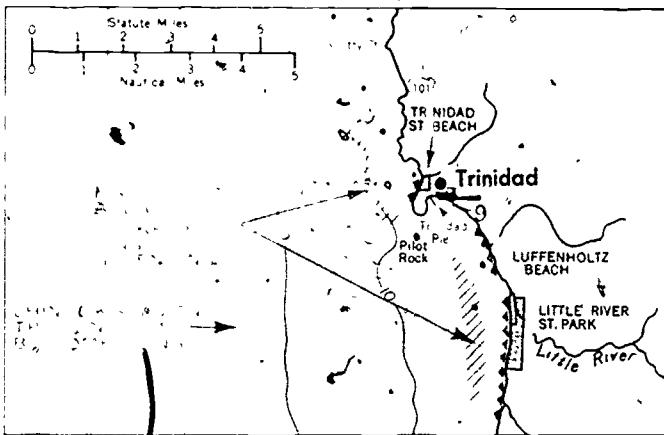
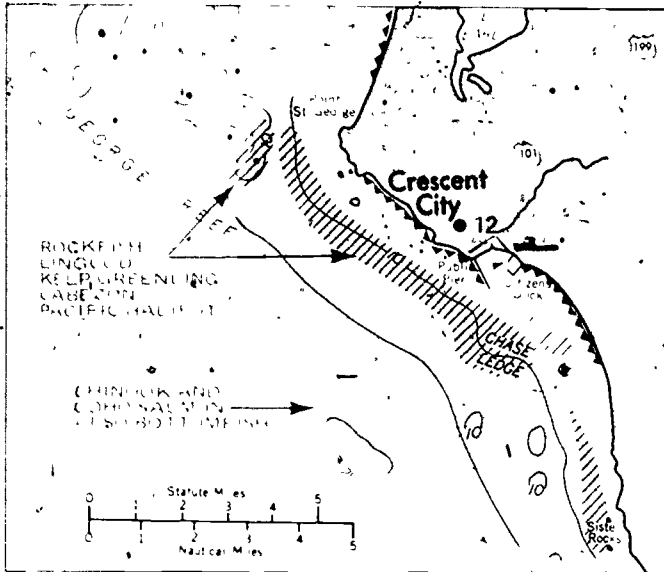
## 15/ Eel River to the Oregon Border

North of Cape Mendocino, dark sand beaches begin to interrupt rocky headlands more frequently, and large rivers, famous for their migrating salmon and sea-run trout, empty into the sea. The terrain is less steep near the ocean than areas to the south, but the coastline still maintains a rugged beauty of its own. Along this coast (Chart 15) the magnificent coastal redwood trees thrive in the cool, and

FACILITY NUMBER  
 SPORT/BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- |    |           |                        |
|----|-----------|------------------------|
| 1  | ●         | Crab Park, Eel River   |
| 2  | ●         | Fields Landing, Eureka |
| 3  | ● ● ● ● ● | King Salmon, Eureka    |
| 4  | ●         | Foot of Commercial St. |
| 5  | ●         | Samoa Angling Access   |
| 6  | ●         | Arcata                 |
| 7  | ●         | Mad River              |
| 8  | ●         | Entrance Humboldt Bay  |
| 9  | ● ● ● ● ● | Trinidad Harbor        |
| 10 | ●         | Stone Lagoon           |
| 11 | ●*        | Klamath River          |
| 12 | ●**       | Crescent City Harbor   |
| 13 | ●*        | Smith River            |

\*Guide service.  
\*\*Summer only.



very damp climate so typical of the Pacific Northwest.

Salmon is by far the most important game fish in this region, and both chinook and coho salmon are taken during summer and fall. Rockfishes and other bottomfishes also enter the sport catch, especially in the north, but this type of fishing usually runs a distant second to salmon fishing.

Redtail surfperch are abundant and are available, year-round along sandy beaches and in tidewater, with spring and early summer bringing the best catches. Surf smelt are netted from March through September, and night smelt run from February through mid-May. Along the occasional rocky stretches, black and grass rockfishes, and kelp and rock greenlings are taken by rock anglers. In most places there is year-round fishing in tidewater for starry flounder and surfperches, with spring bringing the best catches. Eulachon, or candlefish, are dip netted in the Klamath, Smith, and Mad rivers and in Redwood Creek in April and May. Winter steelhead run in most rivers October through March, with peak fishing in December and January. Summer steelhead run in the Klamath and Eel rivers from July through September, and sea-run cutthroat trout occur in the more northerly rivers, fall through spring. Mud flats and beaches along this stretch of coast are famous for their gaper, Washington, littleneck, soft shell, and razor clams. Crabbing for Dungeness crab also is popular along this coast during winter and spring, especially at Crescent City, Humboldt Bay, and in the Eel River Lagoon.

#### CAPE MENDOCINO TO HUMBOLDT BAY

The first coastal fishing area north of Cape Mendocino that is reasonably accessible is at Centerville Beach and around the mouth of the Eel River. In the Eel River lagoon, most fishing is from skiffs, although there is shore fishing also. Steelhead are caught in summer and fall with larger fish landed late in the season. During most years chinook salmon enter the lagoon in August and run through October, coho salmon begin to appear later, around November. Starry flounder and surfperches also are taken in the lagoon. South of the Eel River there is surf netting for surf (day) smelt and casting for redbait surfperch along the sandy beach at Centerville County Park.

North of Eel River U.S. 101 turns toward the coast as it approaches the town of Eureka, a center of fishing activity during the salmon season. A blue party boat and skiff fishery

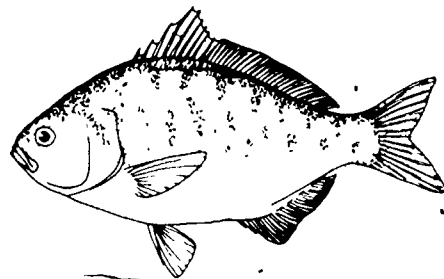
operates out of Humboldt Bay, and boats fish almost exclusively for chinook and coho. Standard fishing methods are trolling and drifting ("mooching") bait close to the bottom. Fishing takes place from May to October with chinook being the first to show. July and August are considered the best fishing months as significant numbers of coho begin to be caught. Salmon move in close to the beaches and around the jetties at the harbor entrance as the season progresses. During this time skiffs venture out into the ocean to join the party boat fleet and the entrance channel soon becomes a favorite spot for chinook fishing. Small-boat fishermen are warned not to negotiate the harbor entrance on an outgoing tide—large breakers form along the bar and make this a highly dangerous area.

Inside Humboldt Bay there is tidewater fishing from skiffs for jacksmelt, sharks, rays, and surfperches (mostly redbait, walleye, silver, and shiner). Sharks are plentiful in Arcata Bay, and leopard shark fishing is excellent in Mad River Slough during summer. Sturgeons sometimes are taken around the ruins of the old lumber loading ramp at the head of Arcata Channel. South Humboldt Bay is mostly a clamming area, but there also is angling for some of the species mentioned above and rockfishes, which are taken consistently by anglers over the artificial reef during slack tide and when the water is clear. Rockfishes are taken also around the breakwater at Buhne Point.

The ocean beaches adjacent to the Humboldt Bay entrance from the North and South spits have shore fishing. On the South Spit, anglers cast for redbait and silver surfperches, and net surf and night smelts in the surf. The south jetty is a popular fishing spot for blue and black rockfishes, kelp greenling, lingcod, cabezon, surfperches (striped and redbait), jacksmelt, and coho and chinook salmon (in summer). Species caught from the North Spit are similar to those taken along the South Spit, but permission from the Coast Guard is needed to fish the tip of the spit as well as the north jetty where grass rockfish are especially plentiful. Another jetty, on the bay side of the North Spit, is a good spot for lingcod, kelp greenling, cabezon, and rockfishes (blue, black, and grass).

A popular shore fishing site on the eastern side of the bay is at Buhne Point around the electric power plant warm-water outfall, where good numbers of redbait surfperch are taken, as well as walleye and silver surfperches and other bay fishes. Shore anglers also catch a variety of surfperches (pile, shiner, redbait, silver, white, and striped) around the

railroad bridge that spans Eureka Slough. Pier fishing is allowed at a number of docks at Fields Landing, Buhne Point, and Eureka, where the catch consists usually of jacksmelt, topsmelt, staghorn sculpin, kelp greenling, and surfperches (mostly striped, white, and shiner).



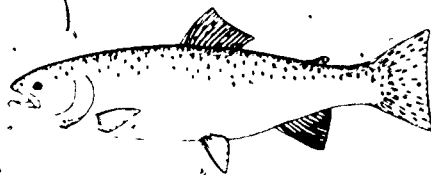
MAD RIVER NORTH TO THE TRINIDAD HEAD AREA

At Mad River, most fishing is in the lagoon section for coho and winter-run steelhead (January to March), although a few chinook are landed. Along beaches adjacent to the river mouth and north to Little River State Beach, there is good shore casting for redbait surfperch and netting for surf and night smelts. Steelhead run in Little River in winter, sea-run cutthroat trout appear in spring, and salmon occasionally run up the river in fall.

About a mile north of Little River at the southern end of Luffenholz Beach (a sandy beach bordered by rock outcroppings), access to shore is difficult in places, but there is good rocky-shore fishing for rockfishes, cabezon, and kelp greenling, and excellent smelt netting and surf casting for redbait surfperch along the sandy-shore section.

Trinidad Harbor offers ocean salmon fishing and bottomfishing in summer, and pier and rocky-shore fishing year-round. The salmon catch is mostly coho, and best fishing is in July and August. Blue and black rockfishes, lingcod, kelp greenling, and cabezon are caught in the salmon fishing areas and inshore over rocky reefs. There is pier fishing in the harbor for jacksmelt, surfperches (redtail, walleye, and striped), kelp greenling, and cabezon.

To the north, rockfishes, greenlings, and surfperches are taken from rocky beaches at Trinidad State Beach and Patricks Point State Park.





## NORTH OF PATRICKS POINT TO THE KLAMATH RIVER

North of Patricks Point the shore becomes lined with sand dunes, and beaches have excellent runs of surf and night smelts and redbtail surfperch. The large brackish-water lagoons along this section of the coast have sporadic year-round fishing for cutthroat trout and small steelhead. Big Lagoon and Stone Lagoon sometimes break open to the sea during high water, at which time salmon and steelhead move in. North of Dry Lagoon State Park, beaches backed by evergreen-crowned bluffs have good runs of surf and night smelts and redbtail surfperch—particularly the Gold Bluffs area (reached by way of Fern Canyon Road).

The Klamath River is famous for its excellent runs of chinook salmon and steelhead. The tidewater section of the river is heavily fished by skiff and shore anglers—there is no skiff fishing in the ocean. Chinook start running in mid-July or August and continue through October. Although most fish are landed from skiffs which jam the lower river during the height of the season (August to September), many also are taken by anglers casting from shore around the river mouth. Coho enter the catch in mid- to late September, and the run may last until December. Steelhead begin their run in July and continue to run through November or later, depending on river conditions. Other fish caught in tidewater include redbtail surfperch, starry flounder, white and green sturgeons, and eulachon. Along beaches adjacent to the Klamath River mouth, surf netters strain the breakers for surf and night smelts, and bait casters fish for redbtail surfperch and starry flounder.

North of the Klamath, near the south border of Del Norte Coast Redwoods State Park, netters, rock anglers, and surf casters fish from shore around the mouth of Wilson Creek. Within the creek, chinook and coho salmon, summer steelhead, and sea-run cutthroat are taken.

## CRESCENT CITY

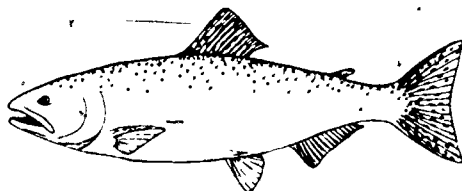
The harbor at Crescent City is well protected from sea and weather by extensive seawalls which flank its perimeter and by the Point St. George headland. The fishing fleet is based at Crescent City Boat Basin between the east seawall and the public fishing pier, an area known as Citizen's Dock. Party boat and skiff anglers fish for salmon and bottomfish, weather permitting. Salmon trolling (mainly for usually begins in June and

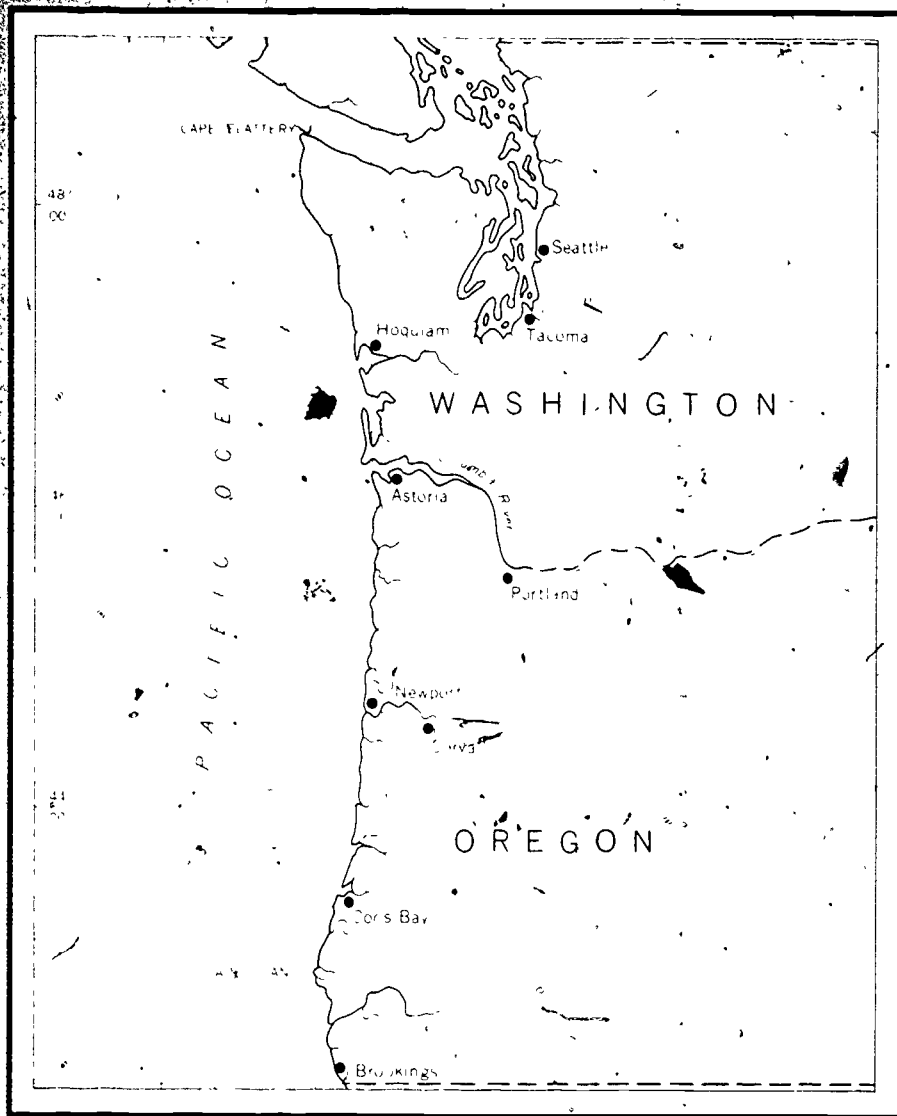
continues through September, with best catches made in July and August. Lingcod, cabezon, kelp greenling, rockfishes, and Pacific halibut also are taken in the salmon areas, but best bottomfishing is found usually farther inshore close to rocky reefs along the 5-fathom curve from Sister Rocks to the harbor entrance and along the 10-fathom curve from Chase Ledge north to St. George's Reef. Species of rockfish that enter the catch include black, blue, china, vermilion, and bocaccio.

Shore anglers take blue and black rockfishes, lingcod, and kelp and rock greenlings from the west breakwater and along rocky shores north to Point St. George. There is pier fishing at Citizen's Dock for starry flounder, kelp greenling, surfperches (striped and redbtail), and jacksmelt. Occasionally, large schools of surf smelt appear around the dock and are taken by snagging; herring are taken during late winter and early spring. Pier anglers also trap Dungeness crab in ring nets during winter and spring. Both surf and night smelts are netted along beaches south of the harbor and north of Point St. George, with surf smelt predominating along northern beaches.

## THE SMITH RIVER

The Smith River mouth and the tidewater lagoon section have considerable skiff fishing during the salmon season. Chinook is the most sought after, and fish weighing 25 to 30 pounds are not uncommon. The season usually extends from September through December; late September and October are peak fishing times in tidewater. Some coho also are taken; most are landed in October and November. Sea-run cutthroat trout are caught from shore and skiffs from September through May, with peak fishing in March and April. A few winter steelhead are caught in the lagoon from December through March, and eulachon are dip netted during their run in spring. Starry flounder, surfperches (mostly redbtail), and cabezon are caught year-round in tidewater, and redbtail surfperch and surf and night smelts are taken along the beach south of the river mouth. North along the coast, anglers fish the rocky shores of Pelican State Beach for black rockfish and other rocky-shore fishes, and for night smelt along sandy stretches.





## OREGON AND WASHINGTON

From the California-Oregon border to south of Coos Bay, the coastline is rugged with few extensive sandy beaches. From Coos Bay north, the coastline is generally wide, sandy beaches interspersed with rugged headlands. This type of coastline extends to north of Grays Harbor, Wash. Farther north, the coast off northwest Washington from about Cape Elizabeth is again a rocky one, with small, sandy beaches between the rocky headlands. Beginning at the Strait of Juan de Fuca and continuing eastward throughout the greater Puget Sound area is one of the most picturesque coastlines and interesting fishing areas along the Pacific coast.

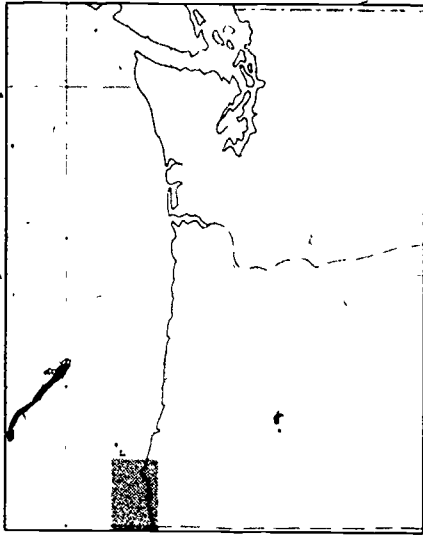
The rugged water and sea-state conditions so common to the northern California coast continue northward to off Cape Flattery, the northwesternmost point of Washington.

Cape Blanco, Oreg., marks the northern boundary of the major coastal "upwelling" area of nearshore cool water that extends along the coast south to Point Conception, Calif. Though some coastal upwelling is evident along the coast north of Cape Blanco, it is minor when compared to the magnitude of that occurring to the south of Cape Blanco during late spring, summer, and early fall. The coastal waters of central Oregon to offshore central Washington are, a major part of the year, under the influence of the

eastern portion of the North Pacific eastward-flowing current, or North Pacific Drift. The current has a moderating influence on coastal temperatures in this area, and during the summer sea surface temperatures are several degrees warmer off northern Oregon to central Washington than those found both to the south toward California and the north toward British Columbia.

Many of the same species are common to the coastal waters of Oregon, Washington, and southeastern and south central Alaska; salmon species are of primary interest to the marine game fish angler in the northwest. When concentrations of albacore migrate close to the coasts of Oregon and Washington during the summer, a sport albacore troll and live-bait fishery develops. This is one of the few pelagic marine game species, aside from salmon (which are anadromous), that are taken offshore on the high seas.

Though the major species of interest in the greater Puget Sound area, as on the open coast, are chinook and coho salmon and, to a lesser degree, halibut, excellent fishing for sea-run cutthroat and Dolly Varden trout, as well as many species of bottomfish such as flatfishes, rockfishes, cabezon, lingcod, and greenlings, make this inside waterway area a most productive one for the marine angler.



## 16/ California-Oregon Border to Cape Blanco

From just north of the California border to above Cape Blanco (Chart 16) is one of the more rugged, yet accessible sections of the Pacific coast. The shoreline is, for the most part, rocky with high eroded bluffs standing above the beach and the high-water line. Many submerged and exposed rocky reefs, extending from the shoreline out to about 10 to 15 fathoms, turn much of the coast into a hazardous area for the inexperienced angler. When safely fished, however, these areas will prove to be productive ones for many species of fish and shellfish.

Near the California-Oregon border the offshore bottom topography slopes gently westward from shore and the 50-fathom depth curve is about 3 nautical miles offshore. The nearshore bottom is generally rock and sand; outside the 10-fathom depth curve the bottom is composed of brown, black, or gray sand.

Three fishing ports—Chetco Bay at Brookings, with one of the best small-boat harbors along the southern Oregon coast, the famous Rogue River estuary at Gold Beach, and the small fishing port of Port Orford—provide good locations for bay, nearshore, and offshore marine sport fishing along this rugged section of coast.

Just north of the California-Oregon border is the Winchuck River, a small coastal river that has a chinook salmon run and is fished near the mouth in late fall, mostly in November and December. Steelhead are taken from the lower Winchuck River throughout the winter, starting after the first early winter rains.

Chetco Bay at Brookings is increasing in popularity as a small-boat port and has excellent facilities for

the many thousands of anglers who fish offshore and in the Chetco River and estuary each year. A substantial breakwater provides for easy access to the ocean, except during severe southerly storms. A sizable charter boat fleet is available for fishing the nearby, coastal reefs for bottomfishes prior to June, and for salmon during the rest of the year. These boats occasionally go offshore for albacore if the fish are reported to be available within cruising distance.

Most salmon landed at Chetco Bay are coho; the best fishing begins in July and lasts through August and September. A good chinook run occurs offshore in early fall. Offshore rocky reefs are good for rockfishes and lingcod. Within the Chetco River, anglers take cutthroat trout and winter steelhead. A good run of chinook occurs from late September to February. A few coho enter the river late September through December. The jetties at the bay entrance are good locations for poke-poling among the rocks for monkeyface eels and fishing for rockfishes, sometimes greenlings, and surfperches.

Anglers fish near the jetties along the beach in the lower bay for surfperch, and there is a limited tidewater fishery for starry flounder (May to August), black rockfish, lingcod, greenlings, surfperches (redtail and silver), and cabezon. Immediately west of the breakwater, below the town of Brookings, is a sheltered rocky-bottom area good for fishing surfperches, rockfishes, and greenlings.

Northwest of the bay entrance, gravel pockets along the beaches are reported to be good for digging littleneck clams. From the Chetco River north to just south of the Rogue River entrance, are good shores for picking abalone during extreme low tides. Generally, abalone can be found along the southern Oregon coast from Brookings to Port Orford and to south of Coos Bay. They are available off rocky shores and on offshore submerged reefs.

About 15 miles south of the Rogue River entrance is the Pistol River. In the lower tidewater section, anglers take chinook and a few coho salmon from October through the first of December. Steelhead runs are common from December through February, and sea-run cutthroat trout are caught frequently in June.

The beach near the mouth of Myers Creek, south of Cape Sebastian, is a good area for digging razor clams, as is the shore along the small coastal bay immediately south of Cape Sebastian.

The Rogue River is the major river system in southern Oregon and flows into the Pacific Ocean at Gold Beach. This river produces a variety of fishing, and excellent facilities for the

	FACILITY NUMBER	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	Brookings, Chetco River
2	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	Gold Beach, Rogue River
3	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	Wedderburn, Rogue R.
4	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	Port Orford
							<i>Sporadic</i>

angler can be found on both sides of the lower river at Wedderburn and Gold Beach. The bar at the Rogue River entrance can be dangerous, as most coastal bars are, despite considerable improvement of the jetties in recent years. However, once outside the entrance, the angler may fish for salmon and a variety of other ocean fish. A submerged reef is near the shore south of the Rogue River mouth, and the well-known Rogue River Reef is northwest of the entrance. Good bottomfishing is found near these reefs and exposed rocks, which are also a good source of red abalone.

In the lower tidewater section of the Rogue River the major fishery is for salmon; trolling for summer-run chinook is best during August. There is also a fall run of chinook from September to November. Steelhead are present in summer (August to September), and coho from October to December. Other marine species available in the lower Rogue River tidewater are surfperches (redtail, silver, white, and walleye), smelts, lingcod, greenlings, and starry flounder. Many of these marine species are more common during mid- and late summer when the freshwater flow of the river is decreased, allowing a greater influx of salt water into the estuary.

North of the Rogue River entrance is a sandy beach reported to be good for digging razor clams. Fishing is good for rockfishes, lingcod, and greenlings along the rocky shoreline from Otter Point north.

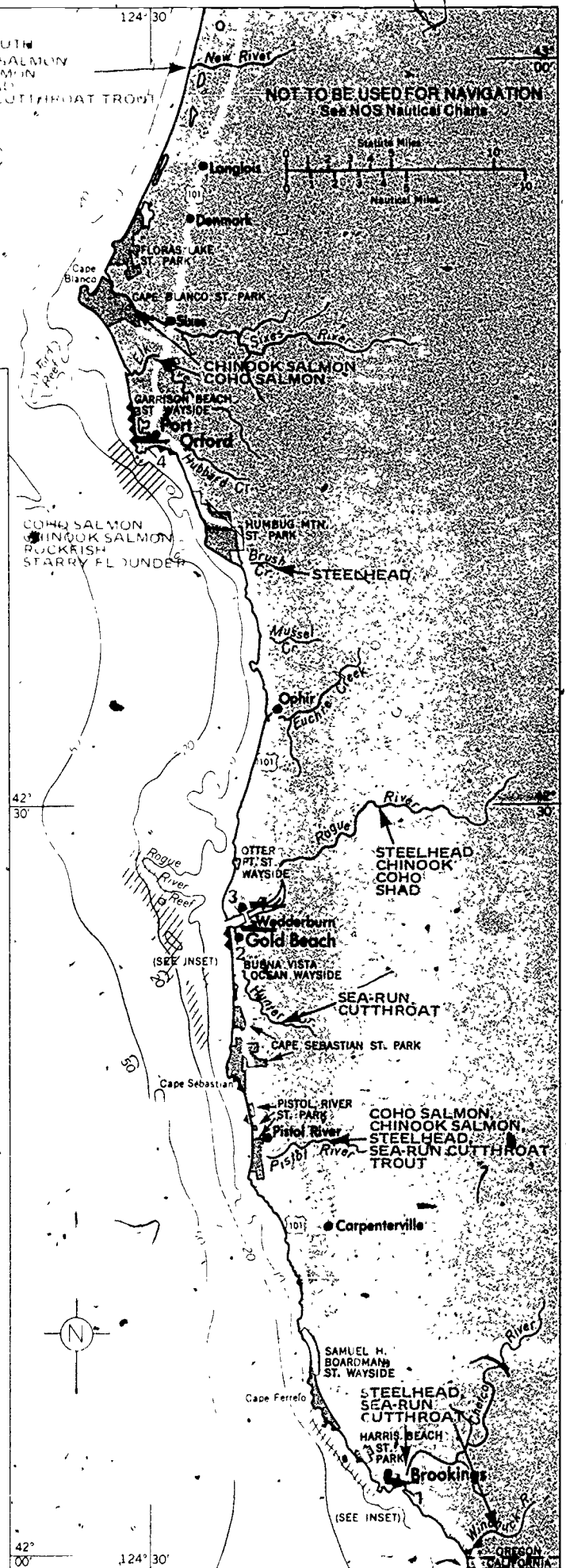
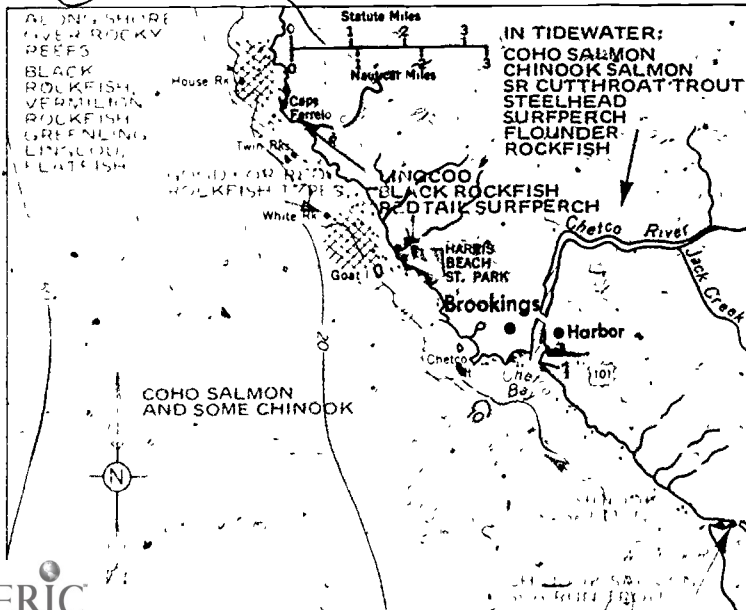
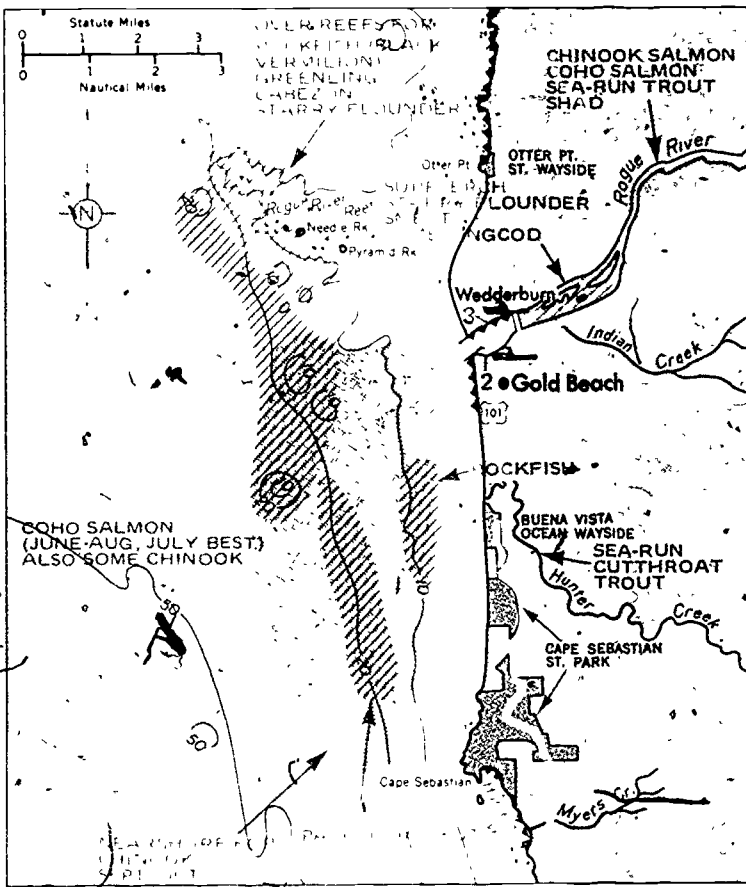
North along the coast is Port Orford, a small harbor providing anchorage and a dock area partially protected by a breakwater. Sport fishing facilities and a launching ramp for small boats are available. Offshore from Port Orford feeding chinook and coho are taken throughout the summer

# CHART 16

- Shorefishing Areas
- Bottomfishing Areas
- Fishing Facilities
- Sportboat Operation
- Depth in Fathoms

RIVER MOUTH  
CHINOOK SALMON  
COHO SALMON  
STEELHEAD  
SEA-RUN CUTTHROAT TROUT

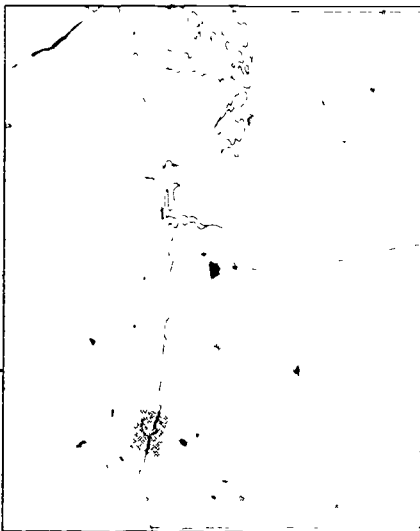
NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



(June to September) Since there is no major river system emptying into the ocean at Port Orford, fishing off this area must rely on the migration of feeding salmon along the coast. Periods of productive salmon fishing are more variable here than off fishing ports near the mouths of river systems with spawning runs of salmon. However, good bottomfishing can be found about the jetty and off the beach. Both north and south of the port are good shore-fishing spots for redbtail, silver, and other species of surfperches and greenlings. Starry flounder frequently are taken nearshore over smooth bottom.

Along the coast between Port Orford and Cape Blanco is the Elk River, a good winter steelhead stream with best catches being made during December and January. Chinook fishing is usually best during October and November; the Elk River has a large run of hatchery chinook. A few coho are taken during October.

North of Cape Blanco, the westernmost point of the 48 contiguous States, is the Sixes River. This river is a good-sized coastal stream, having a fine winter steelhead run with best fishing above tidewater during December and January. Adult chinook and a few coho enter the lower estuary in the fall. October and November are usually the best fishing months for these species. Razor clams occasionally are dug just south of the mouth of the Sixes River at extreme minus tides.



## 17 Coos Bay Area

This section of the Oregon coast (Chart 17) covers the Coquille River and Coos Bay area Northwest of Cape Blanco. The coastal shelf widens and the line becomes predominantly wide

sandy beaches, except for an infrequent rocky point. The submarine topography is relatively smooth and descends to 50 fathoms about 5 to 6 miles offshore. The bottom types are gray sand, and sand and shells in the shallower coastal areas, and green mud in the deeper offshore areas.

The entrance of the Coquille River into the Pacific Ocean is located about midway between Cape Blanco and Coos Bay, at the town of Bandon. Best fishing for coho and chinook salmon entering the Coquille River system is offshore of the river entrance from late May or June through September. Salmon fishing starts in the lower river channel and upstream in September and continues until November. In late summer and fall the lower Coquille has a fishery for sea-run cutthroat trout. Striped bass are taken also in the river north of Bandon.

Throughout the summer anglers fish for chinook and coho offshore of the Coquille River during calm weather. Bottomfishing is popular from and about the jetties and offshore to the south, toward Coquille Point, for species of rockfishes, lingcod, greenlings, cabezon, and flounders. The jetties are short, however, and rough water often restricts sport fishing offshore.

South of the Coos Bay entrance on the north side of Cape Arago are good sandy beaches for smelt fishing during the summer. Along the rocky shore in the Cape Arago area, some of the frequently caught species are greenlings, starry flounder, redbtail surfperch, lingcod, cabezon, and black rockfish.

Fishing along the Coos Bay jetties, either from a boat or a jetty, sometimes yields redbtail and striped surfperches, lingcod, black and copper rockfishes, cabezon, greenlings, and starry flounder. The south jetty is reported to offer better fishing and is easily accessible to the shore angler. Razor clams are dug at Bastendorff Beach immediately south of the jetty. In addition to the offshore salmon fishing areas shown on the chart, chinook occasionally are taken by the jetty angler from deep holes alongside both jetties. Small boats fish for salmon at this jetty entrance area as well as over the deep holes on the Coos Bay Bar. Most salmon fishing is between the bar and the whistle buoy—coho are usually found in the upper layers over deep water and sometimes are taken farther offshore than chinook. In the offshore area, 90% of all salmon caught are coho (mid-June to October); some chinook also are taken (April to October).

Albacore charter trips are sometimes made offshore during July and August if the albacore run is within a reasonable distance of Coos Bay.

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

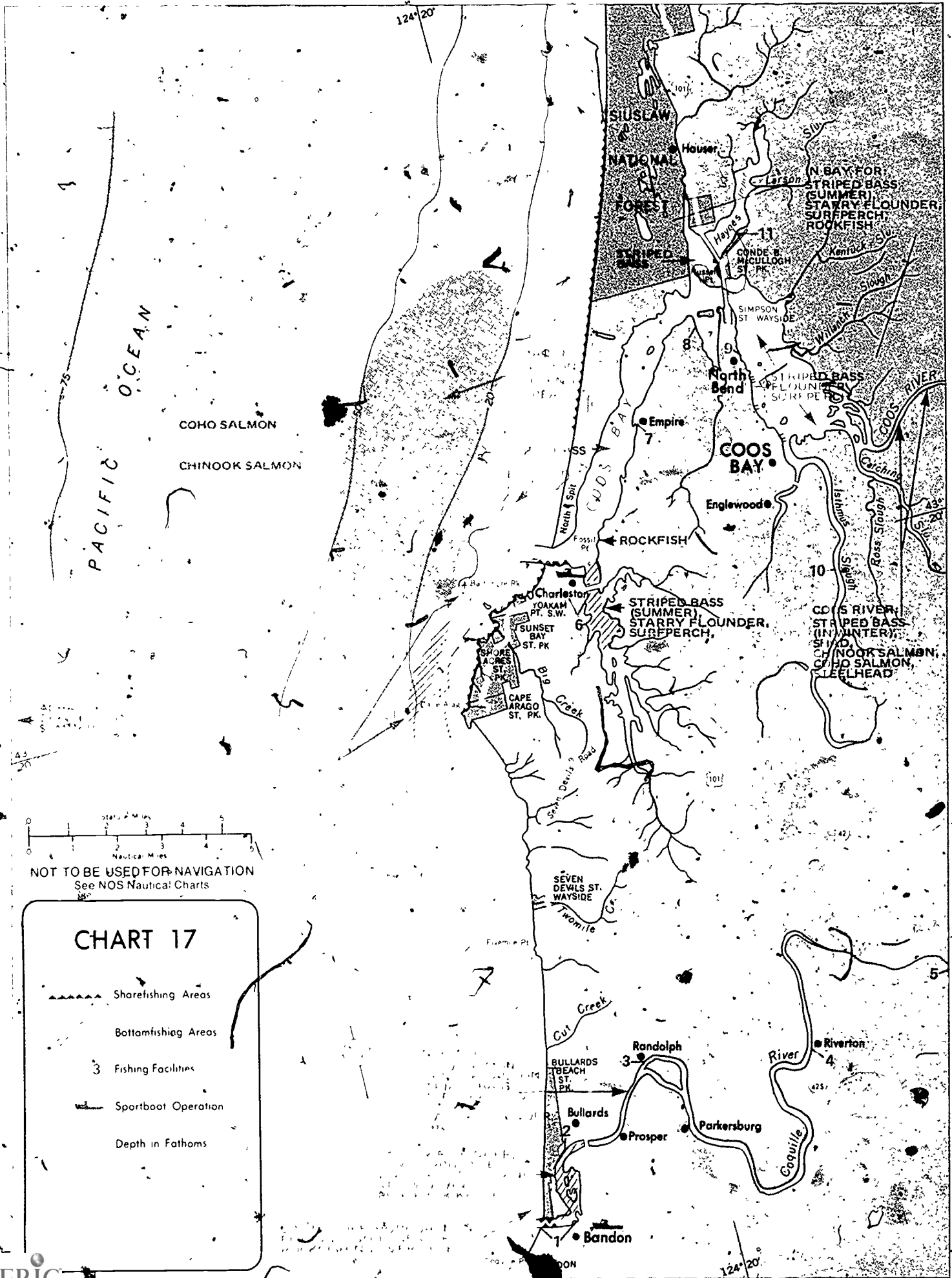
- |             |     |                |
|-------------|-----|----------------|
| 1 ●         | ● ● | Bandon         |
| 2           | ●   | Bullards Beach |
| 3           | ●   | Randolph       |
| 4           | ●   | Riverton       |
| 5           | ●   | Coquille       |
| 6 ● ● ● ● ● |     | Charleston     |
| 7           | ●   | Empire         |
| 8           | ●   | Pony Slough    |
| 9           | ●   | North Bend     |
| 10          | ●   | Isthmus Slough |
| 11          | ●   | McCullough     |

Fishing is good for starry flounder and surfperches inside the Coos Bay entrance. These fish can be caught from a public pier alongside the Charleston Bridge.

Coos Bay has excellent facilities for the angler wishing to use charter boats or his own trailer boat. These are available at Charleston Boat Basin on the south side of the Coos Bay entrance. The lower bay is a good area for fishing starry flounder, rockfishes (off Fossil Point), and surfperches (white, pile, silver, redbtail, and walleye). Striped bass are fished in the lower bay near North Bend and Empire during the summer. Clamming and crabbing also are popular in the bay.

Chinook enter Coos Bay in the fall and fishing is good in upper Coos River in October and November. Coho are caught in November, and steelhead from November to January. Striped bass are taken in some of the sloughs entering the bay, in the upper river during winter, and within the bay itself in late spring and summer. Some of the best fishing for striped bass and shad is available in the upper tidewater in the Millicoma and Coos rivers, where fishing is usually good from March through May.

North of the Coos Bay entrance redbtail surfperch are taken along the sandy shore.



PACIFIC OCEAN

COHO SALMON  
CHINOOK SALMON

SIUSLAW NATIONAL FOREST  
N BAY FOR STRIPED BASS (SUMMER), STARRY FLOUNDER, SURPERCH, ROCKFISH

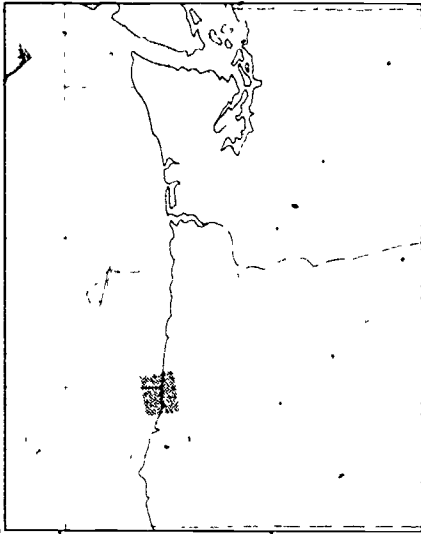
COOS BAY  
STRIPED BASS (SUMMER), STARRY FLOUNDER, SURPERCH  
ROCKFISH

STRIPED BASS (SUMMER), STARRY FLOUNDER, SURPERCH  
COOS RIVER: STRIPED BASS (IN WINTER), SALMON, CHINOOK SALMON, COHO SALMON, STEELHEAD

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

**CHART 17**

- Shorefishing Areas
- Bottomfishing Areas
- Fishing Facilities
- Sportboat Operation
- Depth in Fathoms



## 18 Umpqua River and Siuslaw River Area

A considerable amount of offshore and tidewater fishing takes place along this section of the coast (Chart 18).

About 20 miles north of Coos Bay is Salmon Harbor, on Winchester Bay. It is one of the fastest developing marine sport fishing ports on the Pacific coast. An extensive jetty system provides access from the Winchester Bay-Umpqua River system to the open ocean during most of the year. Excellent facilities for the marine angler are available at Salmon Harbor. More boat basin facilities are being built, all near the Umpqua River jetties. This place ranks as one of the best for salmon fishing along the Pacific coast.

Only a short distance north along the coast from the Umpqua River entrance is the Siuslaw River, another important coastal sport fishing area on the south central Oregon coast.

The bottom topography off this section of the coast is relatively smooth, deepening from shore to a depth of 50 fathoms about 4 miles off the Umpqua River and about 6 miles to the west of the Siuslaw River. Bottom types are generally gray sand in the inshore area, green mud and gray sand offshore. About 27 miles due west of the Siuslaw River entrance is Heceta Bank, one of the well-known fishing spots off the south central Oregon coast.

Coho and chinook salmon are taken outside the Umpqua River bar from June to early October, up to the time when the fall run up the river begins. Coho are usually found farther offshore than chinook and enter the fishery earlier in the year, while chinook appear later and nearer the river entrance. More than 90% of the offshore catch is coho. A good fishing or chinook most of the season is

in the Umpqua River bar area. Both north and south, a distance of 2 to 3 miles from the entrance, are reefs having several desirable species of bottomfishes. The catches consist primarily of rockfishes (quillback, bocaccio, vermilion, canary, black, and china).

Along the outside of the Umpqua River jetties during the summer, anglers on the jetty or nearby in small boats catch an occasional salmon; however, the major fishes taken in this area are rockfishes, lingcod, and surfperches. On the inside of the jetties anglers take rockfishes, starry flounder, greenlings, tomcod, and surfperches (redtail, walleye, white, silver, and pile). Much the same complex of species taken off the Coos Bay jetties also is caught off the Umpqua River jetties. A good place for fishing the entrance channel is from the old U.S. Coast Guard pier on the south side of the channel.

In Salmon Harbor, herring (February to October) and anchovy (June to October) are jigged from the docks. Clamming is very popular in the Umpqua River, and there is some crabbing in the lower river, in Winchester Bay, and from the docks in Salmon Harbor. Usually a small run of chinook enters Winchester Bay during April and May; however, the principal run of chinook in the bay is in the fall, during September and October.

The lower Umpqua River has a striped bass fishery, and this is a good alternative to salmon fishing when conditions on the Umpqua River bar are unfavorable in the summer for offshore salmon fishing. Anglers fish from the bank along the lower river for striped bass, starry flounder, and for coho and chinook salmon during their September and October migration toward the upper river. Sturgeons (white and green) are often caught in the Umpqua River tidewater, from the Big Bend up to about 1 mile above the town of Reedsport. Farther up, the river has both a summer (July and August) and winter (November through January) steelhead fishery, and sea-run cutthroat trout are taken in this area in late fall. Spring chinook fishing is popular upriver at city of Scottsburg and Mill Creek.

Twenty-four miles north of the Umpqua River is the Siuslaw River, where improvements in the entrance jetty system make it possible to fish outside in the ocean during most of the summer. However, bar conditions at the Siuslaw River entrance frequently become unfavorable for small boats, so local advice should be obtained on small-boat navigation over the bar.

Offshore of the Siuslaw River, coho and chinook fishing is reported to be good from June through September, with May to August best. There is fishing off the north jetty for lingcod,

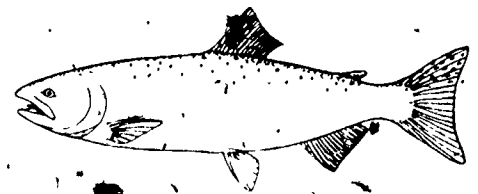
FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

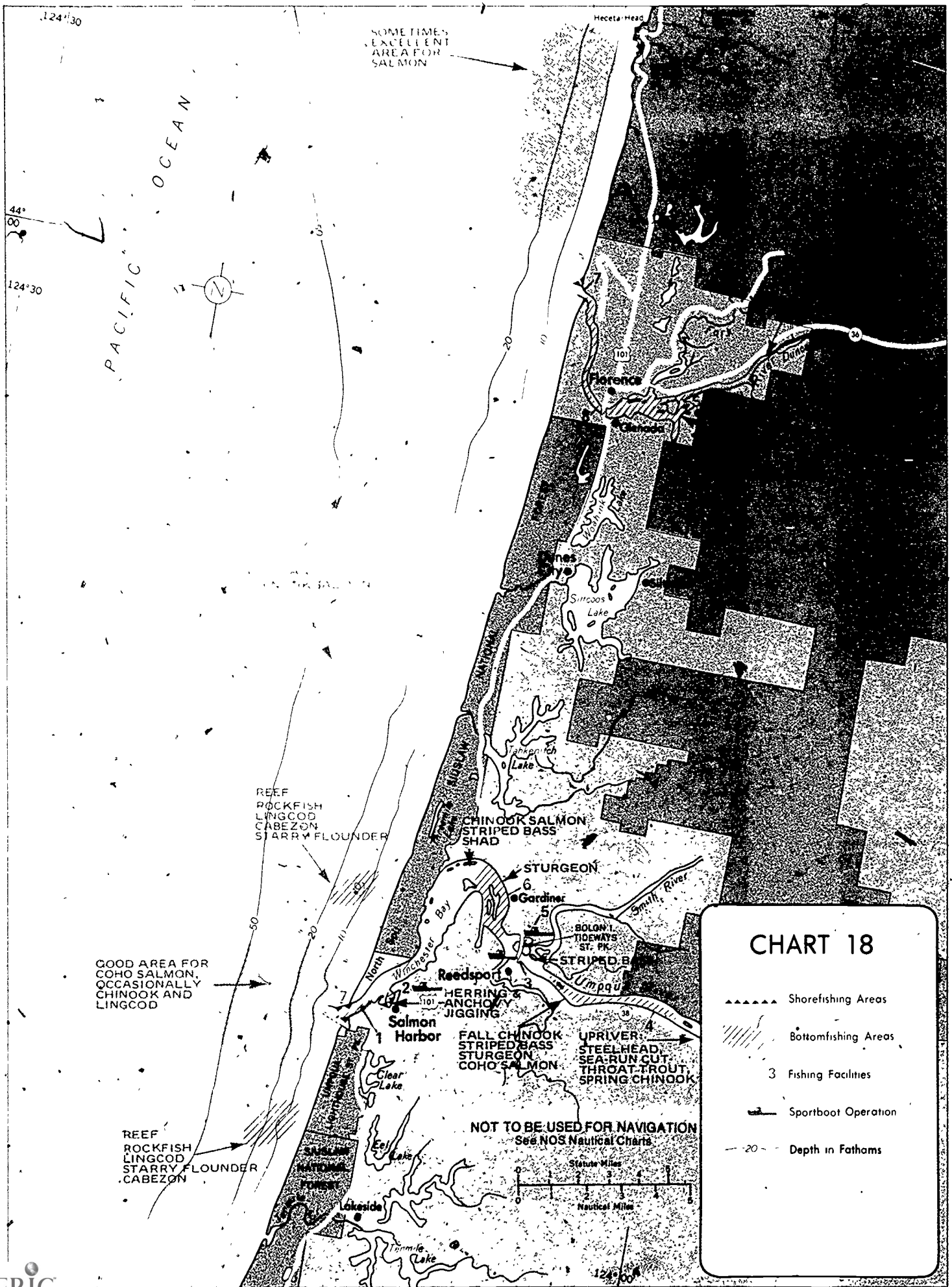
- |   |         |                         |
|---|---------|-------------------------|
| 1 | ●       | Old Coast Guard Pier    |
| 2 | ● ● ● ● | Salmon Harbor           |
| 3 | ● ● ●   | Reedsport, Umpqua R.    |
| 4 | ●       | Echo Resort, Umpqua R.  |
| 5 | ● ● ●   | Umpqua Marina           |
| 6 | ●       | Gardiner, Umpqua R.     |
| 7 | ●       | River entrances         |
| 8 | ●       | Noel's Ramp, Siuslaw R. |

redtail and striped surfperches, black and copper rockfishes, cabezon, starry flounder, and greenlings. Inside the river in the lower bay and tidewater sections, fishing for chinook and coho is good during the fall runs in September through November. Surfperches also are caught in this area (white, striped, pile, walleye, and silver), and there are crabbing and digging for gapers and softshell clams above the Highway 101 bridge.






From the town of Florence to the river mouth, fishing is good for surfperches and starry flounder. From about Siboco east upriver, the major fishery is for sea-run cutthroats; fishing usually begins in July and lasts through the summer. Anglers in this upriver area fish for coho and chinook starting in late September and continuing into November. Also, there is a shad fishery near the head of tidewater in spring.

About 8 miles north of the Siuslaw River is the prominent coastal landmark, Heceta Head. Along the shore of Heceta Head are several good rocky-shore fishing areas for black rockfish, redtail surfperch, lingcod, greenlings, and cabezon. Starry flounder and sand sole are taken over sandy bottom which intersperses rocky areas.





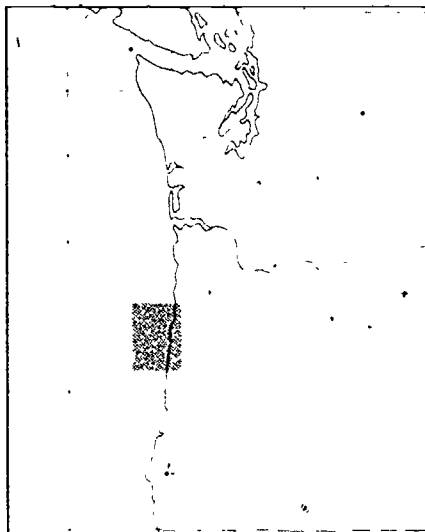
# CHART 18

-  Shorefishing Areas
-  Bottomfishing Areas
-  Fishing Facilities
-  Sportboat Operation
-  Depth in Fathoms

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

3  
Statute Miles  
1  
Nautical Miles





## 19 Heceta Head to Cape Lookout

The central Oregon coast (Chart 19) presents a mixture of broad sandy beaches backed in some areas by high bluffs and hills and rocky points. The prominent coastal points are Heceta Head, Cape Perpetua, Yaquina Head, Cape Foulweather, Cascade Head, Cape Kiwanda, and Cape Lookout.

The offshore coastal shelf northwest from Heceta Head widens and the 50-fathom depth contour is about 10 miles offshore. The shelf narrows off Cape Foulweather to about 5 to 6 miles wide out to the 50-fathom curve. South and west of Newport, the major deepwater port along this section of the coast, is Stonewall Bank, a well-known offshore fishing place. The bottom off this area is generally sand, gravel, and gray sand. A number of major rivers empty into the Pacific Ocean along this section of the coast: the Alsea, Yaquina, Siletz, and Nestucca rivers. In tidewater and about the entrances of these rivers can be found fishing grounds for a number of desirable marine and anadromous species.

North of Heceta Head is a 10-mile area of coast noted for its excellent shore fishing areas for black rockfish, redbtail surfperch, lingcod, greenlings, cabezon. The rugged coastal terrain, however, limits access to this excellent fishing area. North of Cape Perpetua about the mouth of the Yachats River, shore fishing is good for surfperches and smelts. Surf smelt runs are excellent during summer and early fall. This area also has good shore fishing for greenlings, lingcod, redbtail surfperch, and rockfishes. Occasionally, coho salmon are caught September to November; however, this location has a small salmon run. Steelhead in entering the river in late

November; December and January are good months for catching this species.

The first sizable river north of Heceta Head is the Alsea River, emptying into the Pacific Ocean near the town of Waldport. The channel entrance to the Alsea River from the ocean is not protected by a jetty system, and conditions over the entrance bar are much too hazardous for boats. One of the favorite sites for the shore angler is about North Point, where coho and chinook are landed during late summer and fall. The tidewater fishery for chinook extends from August to October; the fishery for coho, from August to November. There is considerable fishing from inside the bar along shore and from small boats from upper tidewater to below the highway bridge. Fishing areas for salmon change from the lower bay to the upper bay and then into upper tidewater as the fish migrate to fresh water. Cutthroat trout are taken by trolling in upper tidewater from July to October (August peak). Within the bay, starry flounder are taken during summer, and surfperches (walleye, striped, white, and silver) are common in the catch from spring through fall. Softshell clams are dug in the shallow areas, and crabs are caught in the bay during summer.

Approximately 5 miles north of the Alsea River is Seal Rock, a good shore-fishing area for surfperches (redtail, silver, and striped) and greenlings.

The next major marine fishing port to the north of Seal Rock is Yaquina Bay. Because of its importance as a recreational fishing area it has been covered separately. (See Chart 20.)

North of Yaquina Bay from Gull Rock to Depoe Bay (see inset), shore fishing is excellent for greenlings, cabezon, lingcod, black rockfish, and for redbtail and striped surfperches.

Depoe Bay is one of the most scenic small-boat ports along the Pacific coast. The bay is very small and connected to the ocean by a short and narrow rock-lined channel bordered on both sides by rough, rocky shore and breaking waves. The bay itself has little fishing. Charter boat facilities are available at Depoe Bay for offshore salmon fishing during summer and early fall, and occasional trips are made offshore for albacore during July and August if the tuna are within operating distance. Off this area, bottomfishing is good for species of rockfishes, flounders, and lingcod. Coho are fished from June through October, with late July and early August best. Of the salmon caught offshore in this area, 90% are coho.

To the north at the Siletz River, shore fishing is good near the entrance for several species of surfperches, rockfishes, and greenlings. The Siletz River has a fairly large entrance to the Pacific Ocean, but the bar is often too

dangerous for boats. Inside Siletz Bay, fishing is heavy throughout the lower bay channel for chinook from August through October, and for coho from August to November. Surfperches (pile, white, silver, striped, and walleye) also are taken within the bay, as well as starry flounder, which are fished on the tide flats and in the channel (best fishing January to May). The bay has some crabbing and sea-run cutthroat are caught in tidewater from July to October.

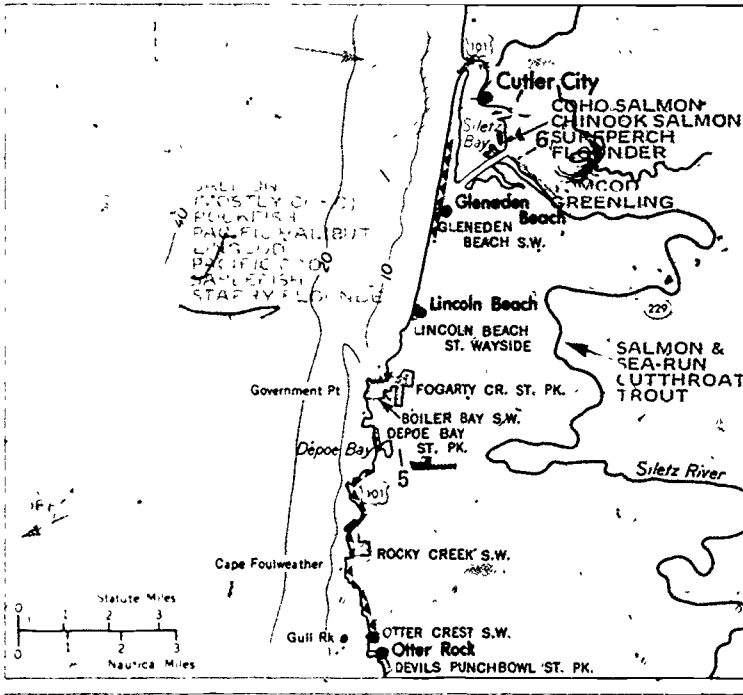
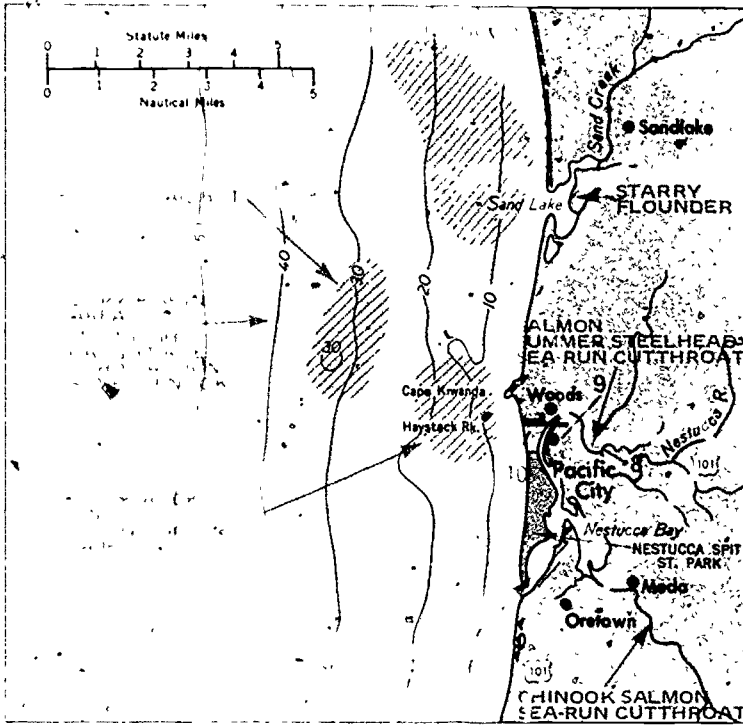
Farther north, the Salmon River empties into the Pacific Ocean just below Cascade Head at the small community of Three Rocks. During calm water, small boats sometimes fish offshore for salmon close to Cascade Head. Around the river entrance, bottomfishing is good for cabezon, black and copper rockfishes, lingcod, and greenlings. In tidewater, starry flounder are taken in summer, sea-run cutthroats from July through September, and coho and chinook from August through October.

One of the more noted fishing places along the Oregon coast is the Nestucca Bay-Pacific City area. Charter operations near Pacific City use surf dories to fish in the ocean off Cape Kiwanda and Haystack Rock for salmon (June through the summer) and bottomfish. Of the salmon caught in this area, 80% are coho. The dories are available for daily charter. This is

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

1	● ●	Alsea River
2	● ●	Alsea River
3	● ●	Waldport, Alsea Bay
4	●	Alsea Bay, north shore
5	● ● ● ●	Depoe Bay
6	● ● ●	Siletz Bay, Kernville
7	●	Three Rocks
8	● ●	Nestucca River
9	●	Pacific City
10	●*	Pacific City

\*Dory

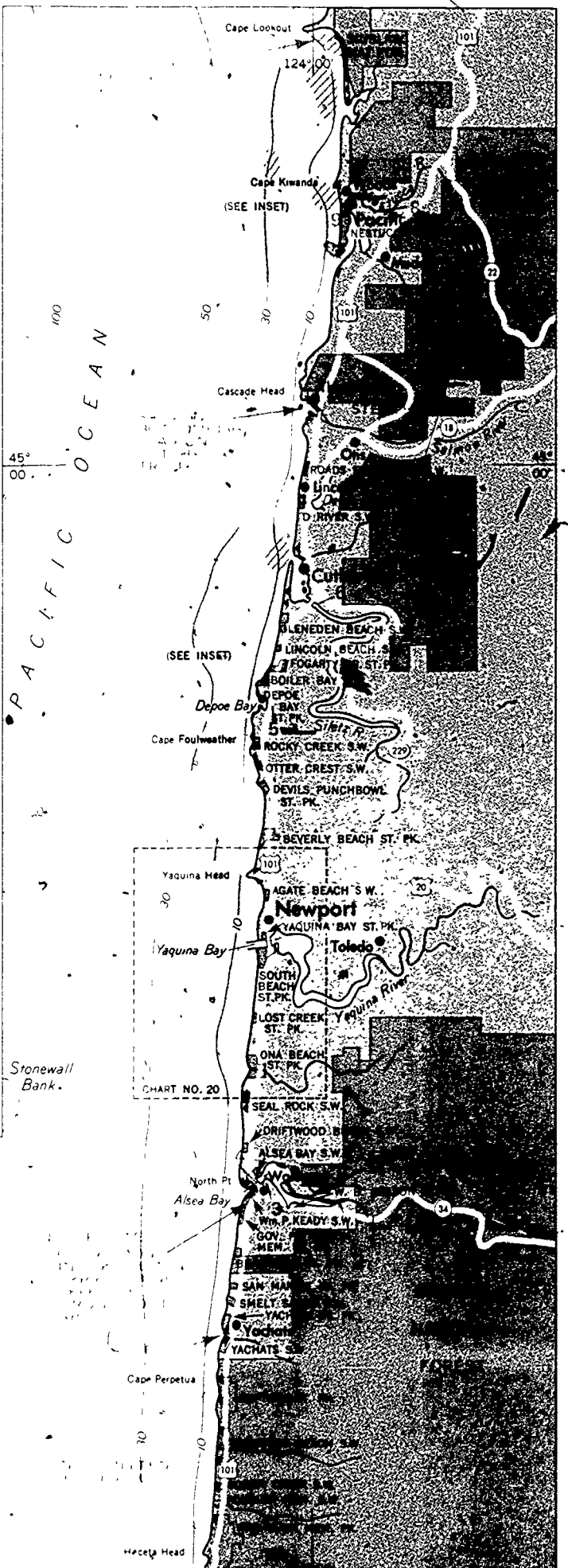


Statute Miles 0 1 2 3 4 5 10  
Nautical Miles 0 1 2 3 4 5 10

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

**CHART 19**

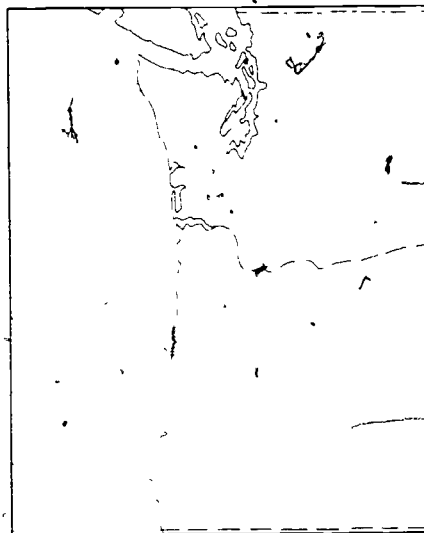
- Shorefishing Areas
- Bottomfishing Areas
- Sportboat Operation
- ⊗ Fishing facilities
- Depth in Fathoms



the only place along the Pacific coast with such a facility available to the public. Only on rare occasions, when near-flat calms prevail, do small boats venture out of the mouth of Nestucca Bay. The entrance bar is, very dangerous, and caution is mandatory. In the bay, fishing is excellent for starry flounder, and in the tidewater section of the Nestucca River, chinook and coho are taken from June to November. Fall runs of chinook provide the best fishing from September through October; coho are fished in October. Steelhead are taken in upper tidewater from November to March, and sea-run cutthroats are fished from June through August. The tidewater section of the Little Nestucca River has much the same species composition and timing for runs of salmon as the Nestucca River.

At Sand Lake, 3 miles north of Pacific City, anglers sometimes take starry flounder in the entrance channel during late spring and summer.

At Cape Lookout, one of the more rugged prominent points along the Oregon coast, anglers catch bottomfish along the south side. On occasions, coho are taken close to the shore of the cape. Access to the shore around the cape is difficult; however, shore fishing is reported to be good in this area for surfperches, lingcod, and greenlings.



## 20 Yaquina Bay Area

Yaquina Bay (Chart 20) offers the marine angler a variety of fishing. Development of an extensive jetty system allows access to offshore fishing most of the time, and excellent shore and fishing facilities are available. The offshore area is intensively fished during the summer for salmon, and 90% of the catch is coho. In addition to rockfishes and lingcod, halibut are taken occasionally around reef areas, and many times are taken while salmon trolling. During mid-summer, some albacore trips are made from Newport to offshore fishing areas.

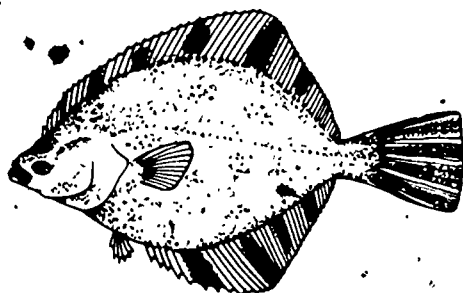
From the Yaquina Bay bridge west along the jetty, salmon frequently are taken from boats (June to October). About the Yaquina Bay bridge piling is a good area for herring and anchovy jigging, especially high tide.

The south side of the south jetty is popular for chinook salmon fishing in the summer. Both jetties are recognized as good fishing places for starry flounder, cabezon, lingcod, black and copper rockfishes, and sole, greenlings, and surfperches (red-tail, striped, and walleye). Fishing in Yaquina Bay is productive for surfperches and bottomfish as well as salmon. Surfperches and flounders are taken along the north and south shorelines of the bay, from shore and from docks; the most plentiful period is

from March through October. A particularly good area for surfperches and starry flounder is south of Yaquina Bay at the bend in the Yaquina River. Up to 90% of the local catch of these two species comes from this part of the bay. Green sturgeon are caught in the upper bay, and chinook and coho salmon are taken in upper tidewater from September to November. Anglers take sea-run cutthroat trout in the upper bay from midsummer through October. Jacksmelt are jigged off docks from January to July, and topsmelt are taken from January to March. Crabs are netted throughout the year from the docks, from the public barge near the Marine Science Center, and from boats on incoming and slack tides.

Yaquina Bay is rated as one of the more popular clamming areas along the Oregon coast. Clams are dug on the tide flats east of the Newport docks and along the south side of the Yaquina River. Cockles, gapers, and softshell clams are the major species in these areas.






The first prominent point of land north of Newport is Yaquina Head. There is good fishing for shore species in this area; February to March usually offers the best fishing for redtail and striped surfperches, Greenlings, lingcod, cabezon, black rockfish, and an occasional salmon also are taken around Yaquina Head.

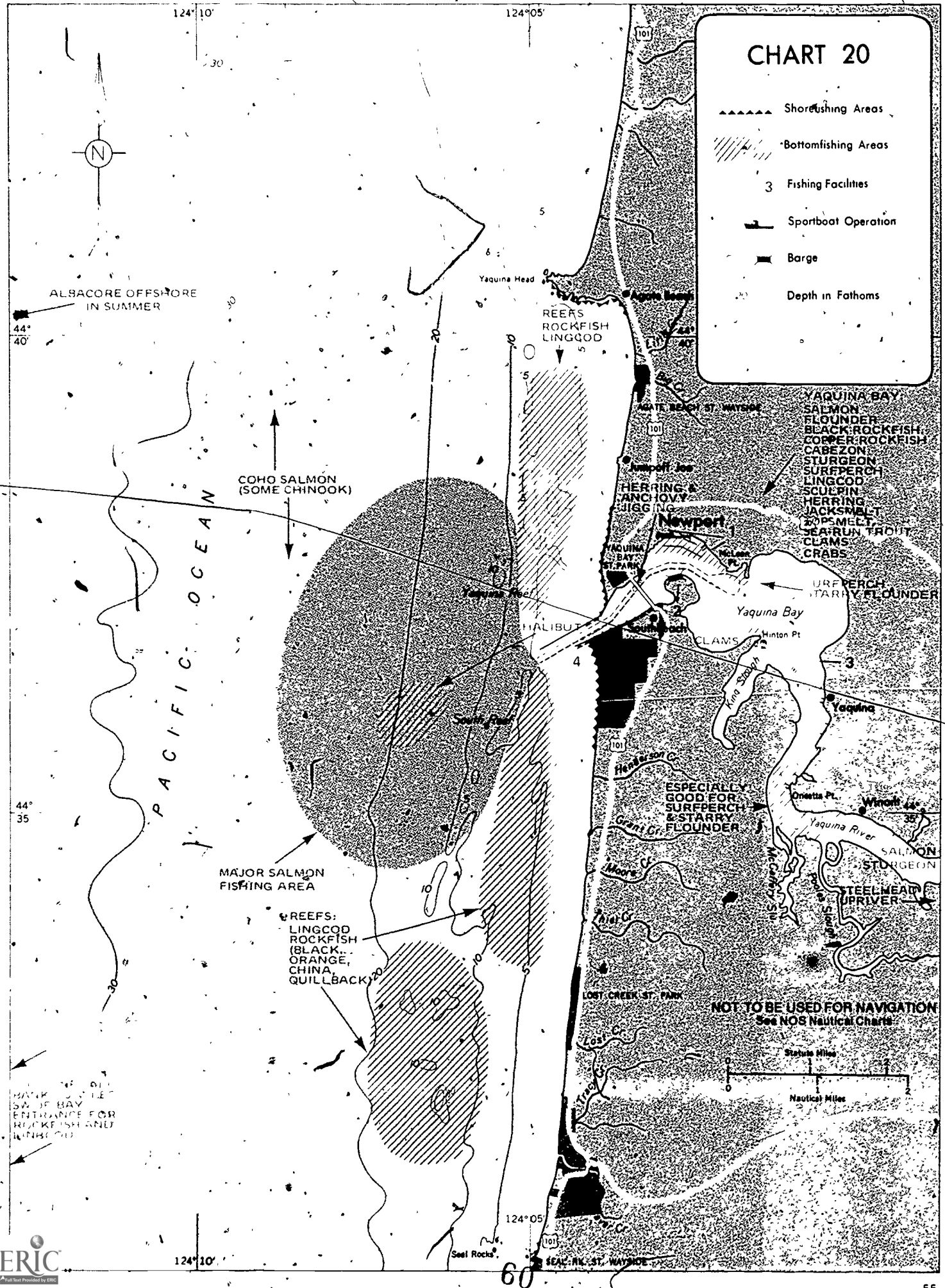


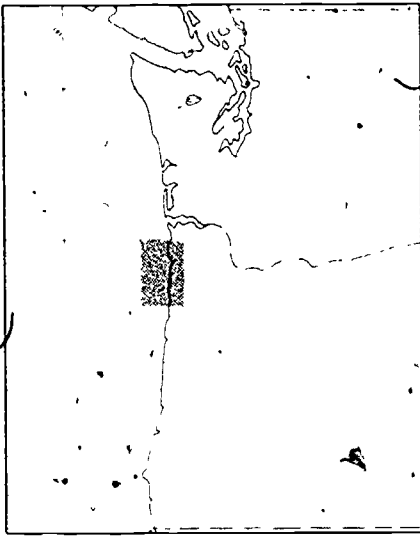
FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- 1 ● ● ● ● ● Newport, Yaquina Bay
- 2 ● South Beach, Yaquina B.
- 3 ● Yaquina
- 4 ● Entrance Yaquina Bay

# CHART 20

-  Shorefishing Areas
-  Bottomfishing Areas
-  Fishing Facilities
-  Sportboat Operation
-  Barge
- Depth in Fathoms





## 21 Cape Lookout to Cannon Beach

Along the coast from Cape Lookout to Cannon Beach (Chart 21), long sandy beaches are common, with occasional prominent rocky points extending west of the coastline—such as Cape Meares and Cape Falcon. Offshore the sea bottom gradually slopes to the west with the 50-fathom curve about 5 miles offshore in the southern half, extending in a northwest direction to about 9 miles offshore in the northern half. The bottom is of sand and shells with some gravel areas. Some rocky areas are close to shore, such as Three Arch Rocks south of Cape Meares, Pyramid Rocks off Cape Meares, Twin Rocks north of Tillamook Bay entrance, Falcon Rocks off Cape Falcon, Castle Rocks just to the north of Cape Lookout, and Haystack Rock off Cannon Beach. These rocky areas are all good for bottomfish; however, they should be approached by small boats only on calm days.

The entrance to Netarts Bay is 6 miles north of Cape Lookout. This bay has some feeder or immature salmon, and both chinook and coho are taken frequently in the lower channel during the summer. Netarts Bay has no spawning runs of salmon as no major

river empties into it. Starry flounder, greenlings, and several species of surfperches are taken throughout the summer; however, the bay is more noted for its excellent crabbing and clamming. Crabbing is good in the lower channel; and gaper, cockle, softshell, littleneck, and a few razor clams are available at low tide on the bay flats that form a sizable portion of the bay's area. The inexperienced boater is cautioned to ask the advice of local anglers before attempting to cross the bar.

Tillamook Bay is one of the largest bays along the Oregon coast, and into it flow the Tillamook, Wilson, Miami, and Trask rivers. The bay has two sizable towns, both with excellent fishing facilities. They are Bay City, half way along the shore on the east side, and Garibaldi, near the bay entrance. In addition to several bottom species listed on the chart, redtail surfperch and black rockfish can be taken from the jetty and in the channel near the jetty. The main channel has good spots for crabbing and fishing for starry flounder and surfperches (walleye, white, silver, striped, and pile). Tillamook Bay entrance has a sizable jetty; however, bar conditions are not generally favorable for small boats. Charter and larger private boats fish offshore for coho and chinook and rockfishes (black, canary, copper, and quillback).

Inside Tillamook Bay, fishing for feeder chinook in the lower channel near the entrance is best from April through May, and again in the fall. Best fishing for coho is from mid-September to November. The best spots for clamming are on the west side of the bay. Razor clams are sometimes found in this area, but most

of the take is other species such as gapers, littleneck, cockles, softshell, and butter clams. Herring are common in the bay and are fished from spring through fall. Crabbing is best in the main channel during the winter.





The Nehalem Bay jetty complex is about 5 miles north of Tillamook Bay. Small boats are able to venture across the Nehalem Bar to fish for coho and chinook salmon only in calm weather during the summer and fall. There is a limited amount of jetty fishing during low water for surfperches (walleye, white, silver, striped, and pile) and greenlings. Herring are jigged in February. Salmon are taken in the lower bay in early fall and in the tidewater areas near the town of Nehalem in late fall. Sea-run cutthroat trout are taken in tidewater, with July to September best. A good spot to fish for starry flounder is in the upper bay, and crabs may be taken in the lower bay channel.

North of the Nehalem River entrance is Cape Falcon, which provides good fishing for several species of rockfishes. Immediately north of Cape Falcon are good clamming beaches such as Short Sand, Arch Cape, and Cannon Beach.

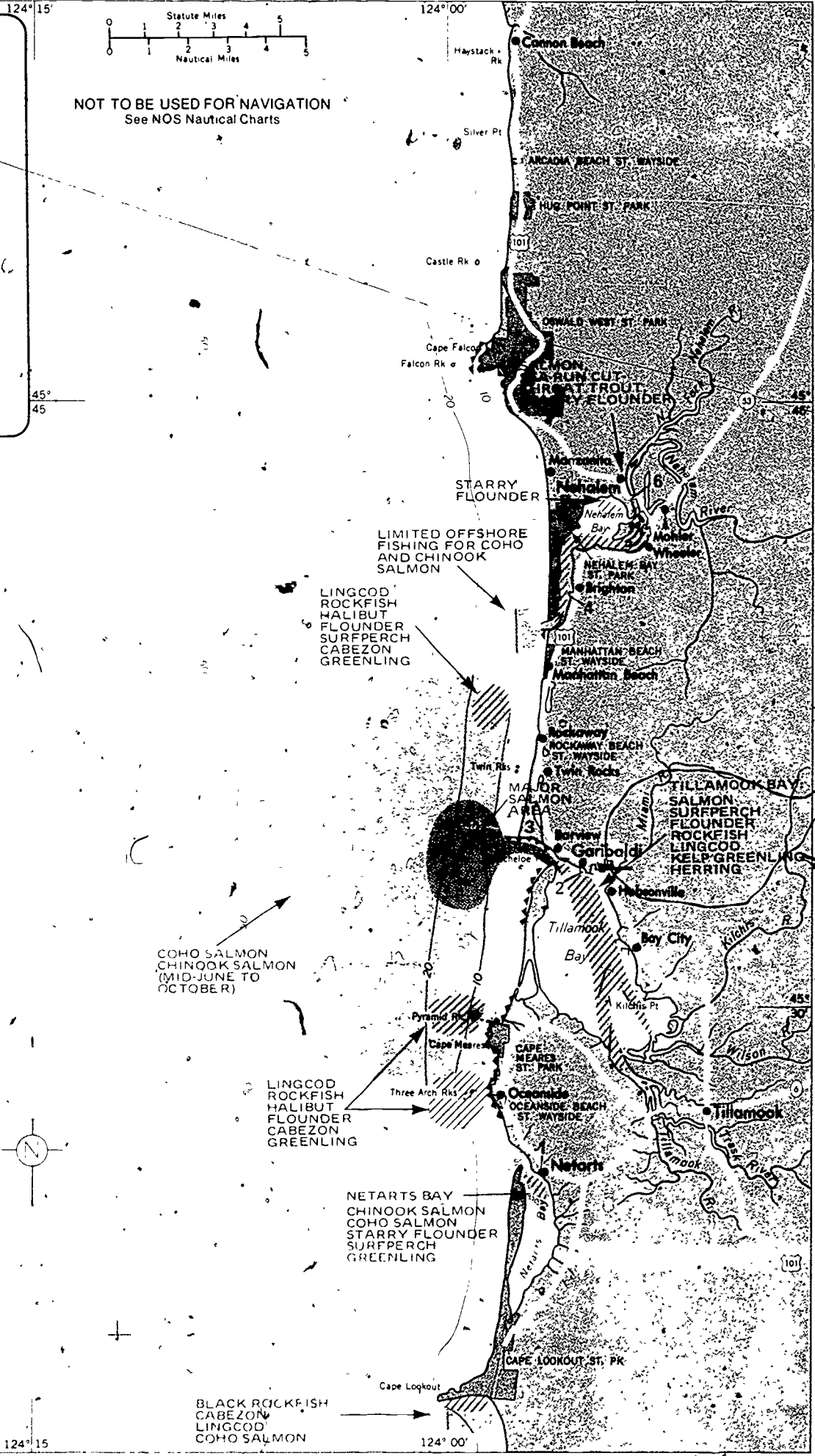
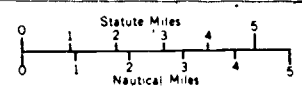
FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- 1 ● ● Netarts
- 2 ● ● ● ● ● Garibaldi
- 3 ● Entrance Tillamook Bay
- 4 ● Brighton, Nehalem Bay
- 5 ● Nehalem Bay
- 6 ● ● Nehalem River

# CHART 21

-  Shorefishing Areas
-  Bottomfishing Areas
-  Fishing Facilities
-  Sportboat Operation
- Depth in Fathoms

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



PACIFIC OCEAN

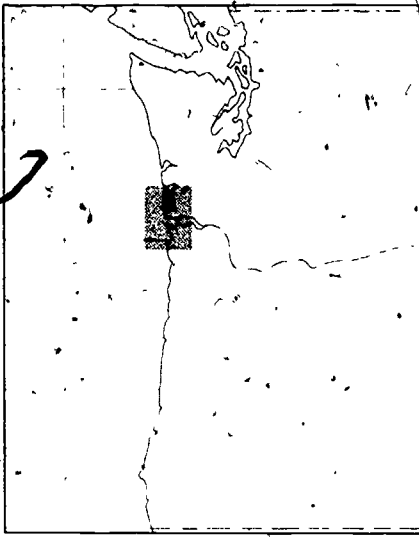
COHO SALMON  
CHINOOK SALMON  
(MID-JUNE TO OCTOBER)

LINGCOD  
ROCKFISH  
HALIBUT  
FLOUNDER  
SURPERCH  
CABEZON  
GREENLING

LINGCOD  
ROCKFISH  
HALIBUT  
FLOUNDER  
SURPERCH  
GREENLING

NETARTS BAY  
CHINOOK SALMON  
COHO SALMON  
STARRY FLOUNDER  
SURPERCH  
GREENLING

BLACK ROCKFISH  
CABEZON  
LINGCOD  
COHO SALMON



## 22. Columbia River

The Columbia River entrance (Chart 22), offshore to the lightship and east in the estuary toward Astoria, is one of the most heavily fished areas in the northwest. Offshore of the Columbia River trolling is good for chinook and coho salmon from mid-June to early fall. One of the more popular trolling areas for salmon from late June to early September is near the Columbia River entrance whistle buoy, where coho are more likely to be taken near the surface and chinook tend to run deeper. As a general rule, coho and chinook are caught farther offshore early in the summer, moving close to the river mouth later in the year, and the sport and commercial troll fishery follows this movement.

About 7 miles southwest of the south jetty, bottomfishing is good for rockfishes (widow, yellowtail, and black), and other species of bottomfish. Between this area and the jetty is a good place for halibut.

Check current information on the Columbia River bar and the weather before venturing into the entrance channel. A number of potentially dangerous areas exist, and fog closing in on these areas while you are fishing provides a setting for possible disaster.

The Columbia River south jetty is accessible for angling, and both sides of the inshore half of the jetty's length are fished. Chinook are caught from the jetty in June and July; coho are taken from June to September. Other species that enter the catch include starry flounder, redbait surfperch, black rockfish, greenlings, and Pacific

tomcod. Along the south shore, east of the south jetty, is a good fishing area for tomcod, starry flounder, and redbait surfperch. Starry flounder may also be caught immediately north of the south jetty to north of Point Adams, and this area also has a productive crab fishery. The north side of the Columbia River entrance, at Fort Canby State Park, is another good crabbing area, and the jetty just west of Sand Island is a good fishing spot for redbait surfperch, greenlings, lingcod, black rockfish, and salmon. The north jetty at the river entrance is a popular place to fish, but dangerous—you should check locally before fishing from it.

Complete facilities for fishing in the Columbia River estuary and offshore may be found along the south shore at Hammond, Warrenton, and Astoria, and on the north shore at Ilwaco and Chinook.

Generally, the lower Columbia River has spring, summer, and fall runs of chinook—the fall run is the largest and considered best. Coho are taken in the river in August and September; in the lower tributaries, September and October. The lower Columbia River has numerous tributaries, such as the Lewis and Clark and Klaskanine rivers, which offer fishing opportunities for shad (June) and steelhead (November to March). Another tributary, the Young River, also has a shad run in June and July. In Cathlamet Bay, east of Tongue Point, summer shad fishing is popular, with July usually bringing the best catches. Along the north shore of the Columbia River estuary from near Megler to Grays Bay, and along the south side of the river from Astoria east, sea-run cutthroat trout are fished close to shore and in nearby streams during summer and fall. Cutthroats also are taken in the Young and Lewis and Clark rivers west of Astoria. White sturgeon are taken throughout the year in the estuary at the locations shown on the chart.

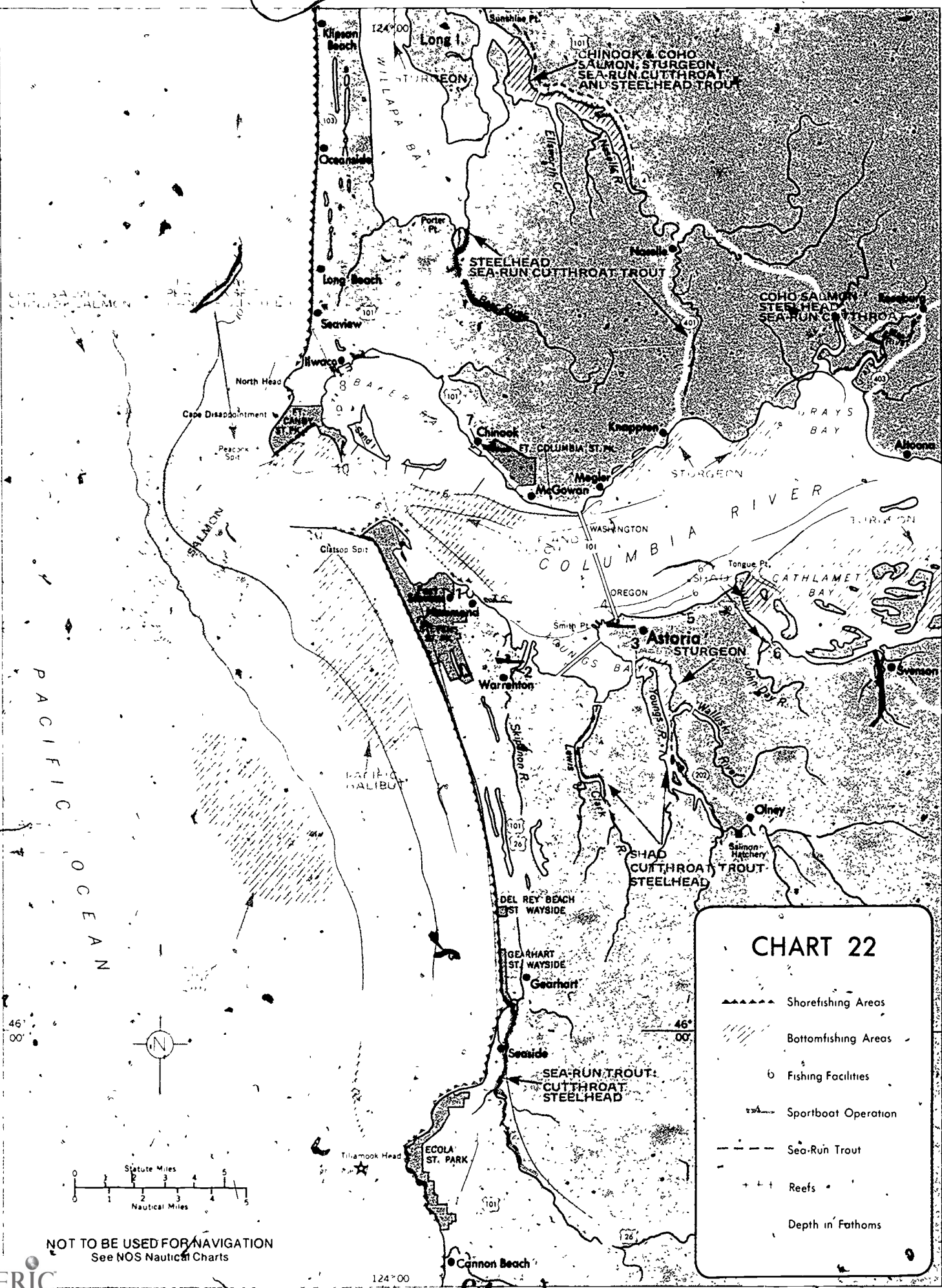
South of the Columbia River is one of the more prominent coastal points, Tillamook Head. Good clamming can be found along the sandy beaches south and north of the Head, and shore fishing is excellent about Tillamook Head itself for black and copper rock-

fishes, greenlings, and lingcod. From Seaside north to the Columbia River entrance, there are about 18 miles of wide sandy beach that has some of the best razor clam digging along the Oregon coast. This beach is also a good surf fishing area for redbait surfperch; however, as on most Oregon and Washington beaches, the surf zone is very wide, making shore fishes less accessible to the surf caster.

The coast north of the Columbia River entrance has good surf fishing spots for redbait surfperch, and the broad sandy beach stretching north for nearly 60 miles has excellent areas for razor clamming.

Farther north, salmon and steelhead are caught in streams entering the southern part of Willapa Bay. The tidewater section of the Bear River, which enters the bay east of Porter Point, is fished for steelhead during late fall and winter, and in summer for sea-run cutthroat trout. The Naselle River is a good steelhead and sea-run cutthroat trout stream in the upper tidewater zone. Also in tidewater, chinook and coho are fished during September through October and white sturgeon are taken frequently during the winter through spring (November to April).

FACILITY NUMBER	SPORT BOAT OPERATION	NET FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●	●				Hammond
2	●	●				Warrenton
3	●	●				Astoria, Youngs Bay
4	●	●				Astoria
5	●					Astoria
6	●					John Day River
7	●	●	●			Chinook
8	●	●	●			Ilwaco
9	●	●				Fort Canby State Park
10	●					Entrance Columbia R.



**CHART 22**

- Shorefishing Areas
- /// Bottomfishing Areas
- Fishing Facilities
- - - Sportboat Operation
- - - - Sea-Run Trout
- + + + Reefs
- Depth in Fathoms

46° 00'

PACIFIC OCEAN

WILLAPA BAY

124° 00'

0 1 2 3 4 5  
Statute Miles

0 1 2 3 4 5  
Nautical Miles

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts





## 23. Willapa Bay to Ocean City

Easy access from the Seattle metropolitan area makes this productive stretch of coast (Chart 23) an active recreational fishing area. The port of Westport, on Grays Harbor, is the most popular location for ocean salmon fishing north of the Columbia River—it could easily be called the coastal marine salmon sport fishing capital of the west coast. Coming into prominence since World War II, with development of an adequate jetty system and a small-boat harbor, it has assumed the leadership in coastal salmon fishing.

The coast from north of Cape Disappointment to north of Ocean City is broad sandy beach interrupted only by the entrances to Willapa Bay and Grays Harbor. The shallow shelf between the shore and the 50-fathom curve is wide, about 12 miles in the south off Ocean Park, and about 18 miles off Ocean City. The bottom in this area is sand and sand and shells, grading to mud bottom in deeper water. One of the better offshore bottomfishing areas—Williams Reef, northwest of Grays Harbor entrance—has a water depth of about 21 fathoms.

Along the ocean beach from Ocean Park north to the Willapa Bay entrance, the sandy shore is excellent for surf fishing, with redbait surfperch the species most frequently taken. This is also a good stretch of coast for digging razor clams.

One of the major salmon fishing areas for coho and chinook during summer and fall is from near the Willapa Bay entrance east to off Tokeland. Green, and some white sturgeons are available in Willapa Bay during the summer; in winter the white salmon migrate upstream. On the

east side of Willapa Bay near Needle Point is the Nemah River. Anglers fish along the banks of the lower Nemah River for chinook and coho from August to November. Nearby, the Palix River is reported to have good tidewater fishing for coho and chinook in late summer and fall. The Palix tidewater area east of Goose Point is a good fishing spot for sea-run cutthroat trout during the summer and in late fall, and winter steelhead are fished in upper tidewater. Along shore to the east and west of Bruceport, anglers catch sea-run cutthroats. Northeast of Hawks Point, in the North River, coho, chinook, and jack salmon (second-year male spawners) are fished from August to November, and sea-run cutthroats during July to October.

To the north, along the outer coast from Cape Shoalwater to the entrance of Grays Harbor, broad sand beaches offer excellent razor clam digging and productive surf fishing for redbait and striped surfperch. Some shore areas also are reported to be good for crabbing.

The Westport-Grays Harbor complex is noted for its excellent facilities for recreational fishing. Many charter boats are available and facilities for the small-boat angler are excellent. As in other ports along the northern California, Oregon, and Washington coast, the bay entrance can be a dangerous one for the small-boat angler if he fails to heed the advice of anglers with experience in local waters. Offshore from Westport, chinook and coho salmon are the major objectives of sport anglers as in most areas from San Francisco north. About 65% of the salmon catch off Grays Harbor is coho, which are found offshore in the spring and closer to shore and near the entrance to Grays Harbor in summer and fall. Chinook dominate the catch early in the season (April to June), and are, on an average, large. They are found offshore in the spring and nearer shore from early July through fall, although usually available to some degree, offshore throughout the season. Coho dominate the catch later in the season (June to October). Pink salmon occasionally are taken offshore, especially during odd-numbered years.

In addition to salmon fishing, a number of charter boats from Westport make trips far offshore for albacore during periods of good fishing in July, August, or September. Bottomfish also are taken offshore, many times incidental to fishing for salmon. Pacific halibut are taken during spring and summer along the 30-fathom curve west of Williams Reef, northwest of the bar. At Williams Reef and other rocky areas the major species of rockfishes caught are the black, yellowtail, vermilion, and yelloweye (rasphead).

Nearshore, the major small-boat

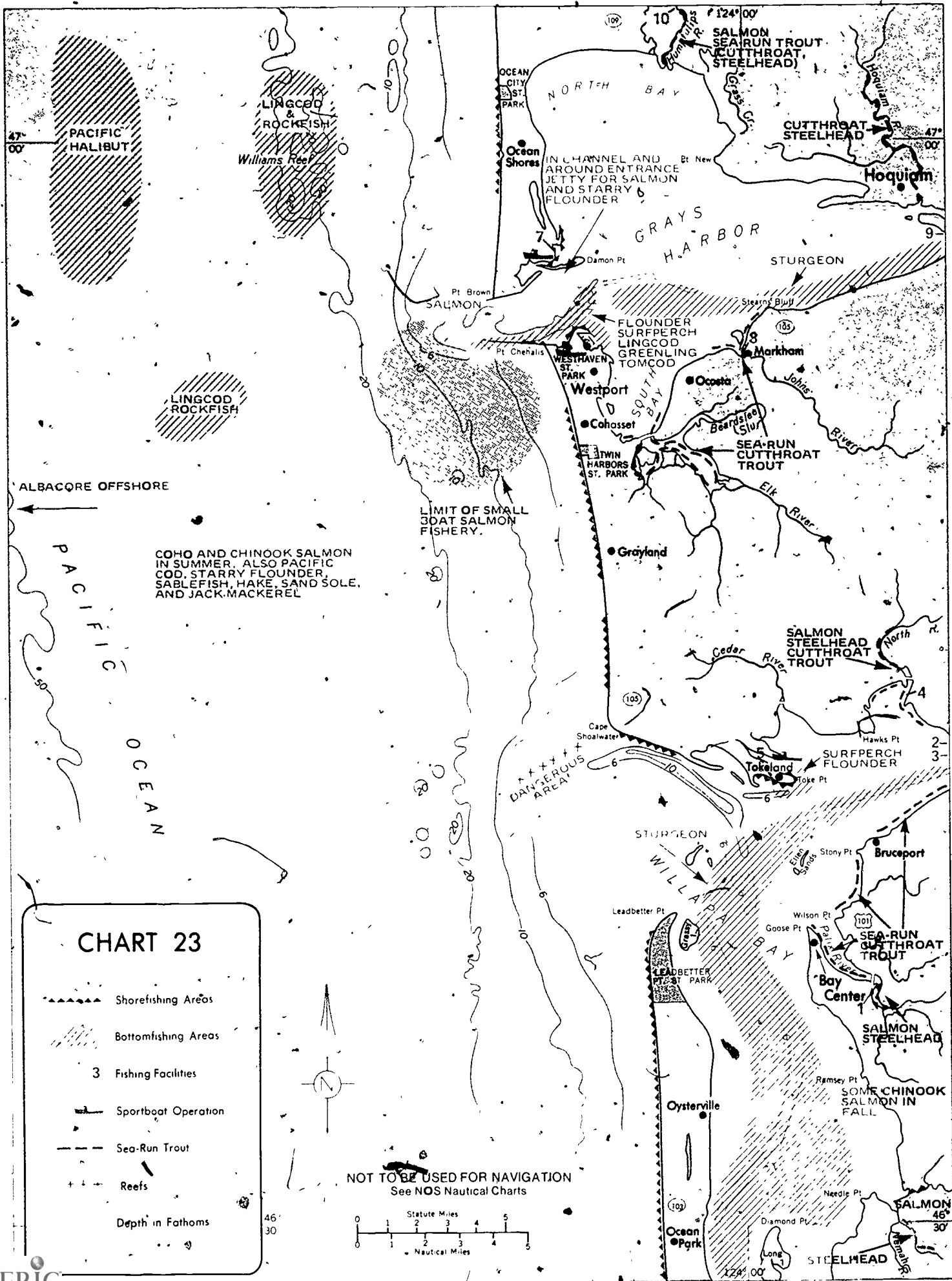
fishing area for salmon is south and southwest of the entrance. On the jetty, anglers take redbait surfperch, black rockfish, cabezon, lingcod, and starry flounder. Coho and chinook frequently are taken on the channel side of the jetty from May to November; best fishing, July through September. In Grays Harbor near the Westport boat basin, surfperches (redtail, silver, white, walleye, and pile) as well as other inshore species are seen in the bay angler's catch. Around the point near the Ocean Shores boat basin is a good area for surfperch fishing from August to January. Green and white sturgeons are sometimes taken in Grays Harbor; greens are caught in the harbor during the summer, and whites are taken in the outer river channel at the east end of the harbor in winter.

Several streams emptying into Grays Harbor provide excellent fishing for salmon and anadromous trout. The Humptulips River has a fall run of coho and chinook salmon and excellent steelhead fishing in the winter. Sea-run cutthroat trout are available in the summer and fall. The Hoquiam River has fishing for steelhead in the winter and sea-run cutthroats in the summer. The major tributary to Grays Harbor, the Chehalis River (east of the chart area) has anadromous cutthroat, steelhead, white sturgeon, and chinook and coho, as well as a few shad.

The stretch of coast north of the

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- |    |           |                      |
|----|-----------|----------------------|
| 1  | ●         | Palix River          |
| 2  | ●         | South Bend           |
| 3  | ●         | Wilson Creek         |
| 4  | ●         | Mouth of North River |
| 5  | ● ● ●     | Tokeland             |
| 6  | ● ● ● ● ● | Westport             |
| 7  | ● ● ●     | Ocean Shores         |
| 8  | ●         | Markham              |
| 9  | ●         | Aberdeen             |
| 10 | ●         | Humptulips River     |



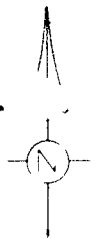
ALBACORE OFFSHORE

COHO AND CHINOOK SALMON IN SUMMER, ALSO PACIFIC COD, STARRY FLOUNDER, SABLEFISH, HAKE, SAND SOLE, AND JACK MACKEREL

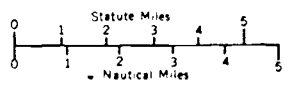
LIMIT OF SMALL BOAT SALMON FISHERY.

### CHART 23

- Shorefishing Areas
- Bottomfishing Areas
- Fishing Facilities
- Sportboat Operation
- Sea-Run Trout
- Reefs
- Depth in Fathoms



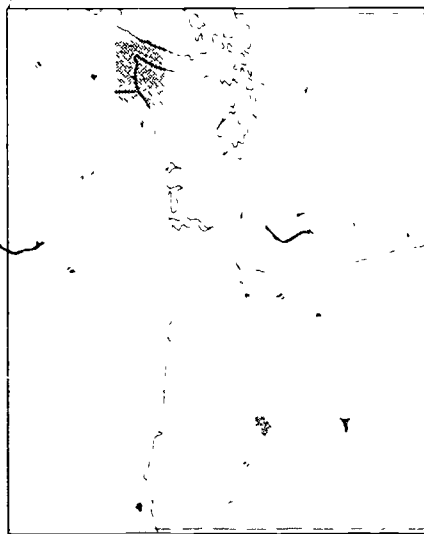
NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



Grays Harbor jetty near the resort area of Ocean Shores is good for surfperch fishing, and the entire sandy beach from the harbor entrance to above Cape Elizabeth is excellent for razor clamming and has some crabbing.

North of the coastal area shown on Chart 23, at Moelips (about 17 miles north of Ocean Shores), is the southern border of the Quinault Indian Reservation. Fishing and clamming are restricted along the reservation shore.

North of the Quinault Indian Reservation, to east of Destruction Island and south of the Hoh River, are good surf fishing and clamming areas with easy access from the coast highway. Runs of good surf and night smelts are common to this area; night smelt runs are from May to September. The coast from this area north to La Push is rocky and nearly inaccessible for shore fishing.



## 24. La Push to Cape Flattery to Clallam Bay

The coast from La Push to Cape Flattery (Chart 24) is one of the most picturesque sections of the Pacific coast. This northwesternmost section of the State of Washington has a rugged coastline of high wooded bluffs, interspersed with sandy beaches and rocky shores, with reefs and small rocky islands just offshore. The coastline from Cape Flattery along the south shore of the Strait of Juan de Fuca to Neah Bay is rugged, and from Neah Bay eastward the shoreline is generally a rocky one, but frequently interspersed with narrow sandy beaches.

The coast south of La Push is rocky with many small pinnacles rising above the surface in the nearshore

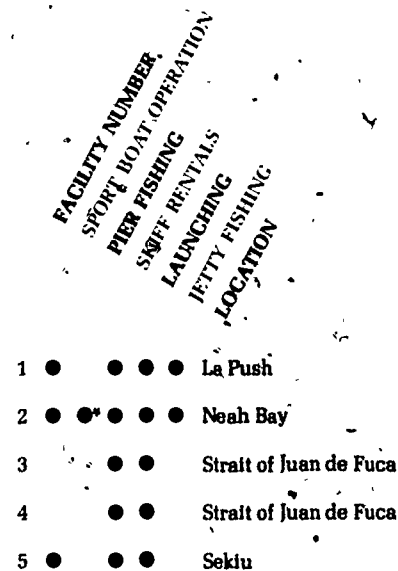
area and extensive submerged reefs. The major islands along this section of rocky coast from south to north are Destruction Island, Alexander Island (about 12 miles below La Push), James Island off La Push, and Ozette and Tatoosh islands off Cape Flattery.

The coastal shelf off La Push has a gradual slope, with the 50-fathom curve being 10 to 12 miles offshore. However, the slope becomes sharper to the north toward Cape Flattery, where the 50-fathom curve is close to shore, passing just to the west of Tatoosh Island and Duntze and Duncan rocks. From Cape Flattery eastward along the Strait of Juan de Fuca to Slip Point near Clallam Bay the 50-fathom curve is about 1½ miles offshore. The bottom nearshore is sand grading to green mud and sand in the deeper water of the Strait of Juan de Fuca.

At the mouth of the Quillayute River, about 36 miles south of Cape Flattery, is the small Indian village of La Push. This is the only small-boat harbor along the northwest Washington coast from Grays Harbor to Neah Bay. The entrance is passable for the small-boat angler most of the summer and is the only place in this area where offshore small-boat fishing is possible with some degree of safety. Though requiring a longer journey from the center of northwest population, La Push is increasing in popularity for ocean anglers.

Much of the fishing off La Push is for feeding stocks of coho and chinook salmon. The offshore catch is predominantly coho, and July to September is the best fishing time for this species. Some pink salmon are taken offshore during the same period. The Quillayute River has anadromous cutthroat trout in summer and fall, and a run of chinook. Chinook concentrate nearshore, along the coast, and around the river mouth during the fall. In late fall and winter the river also has steelhead. In addition to offshore bottomfishing, shore fishing is good off the sandy beaches for redbtail surfperch and off rocky areas for greenlings, black rockfish, and sometimes lingcod. Anglers fish from the jetty at the entrance to the river and from the beach just south of the mouth.

From north of La Push to near Cape Alava there is little ocean and shore recreational fishing because of its remoteness from any small-boat harbor and lack of shore access roads. Off Cape Alava and to the north is the start of coastal offshore fishing areas for coho and chinook salmon fished by boats from Neah Bay. Fishing in this area begins in May. In addition to coho and chinook, pinks are taken frequently in late summer and early fall during odd years. North of Cape Alava is the Ozette River, which is reported to have good fishing for sea-

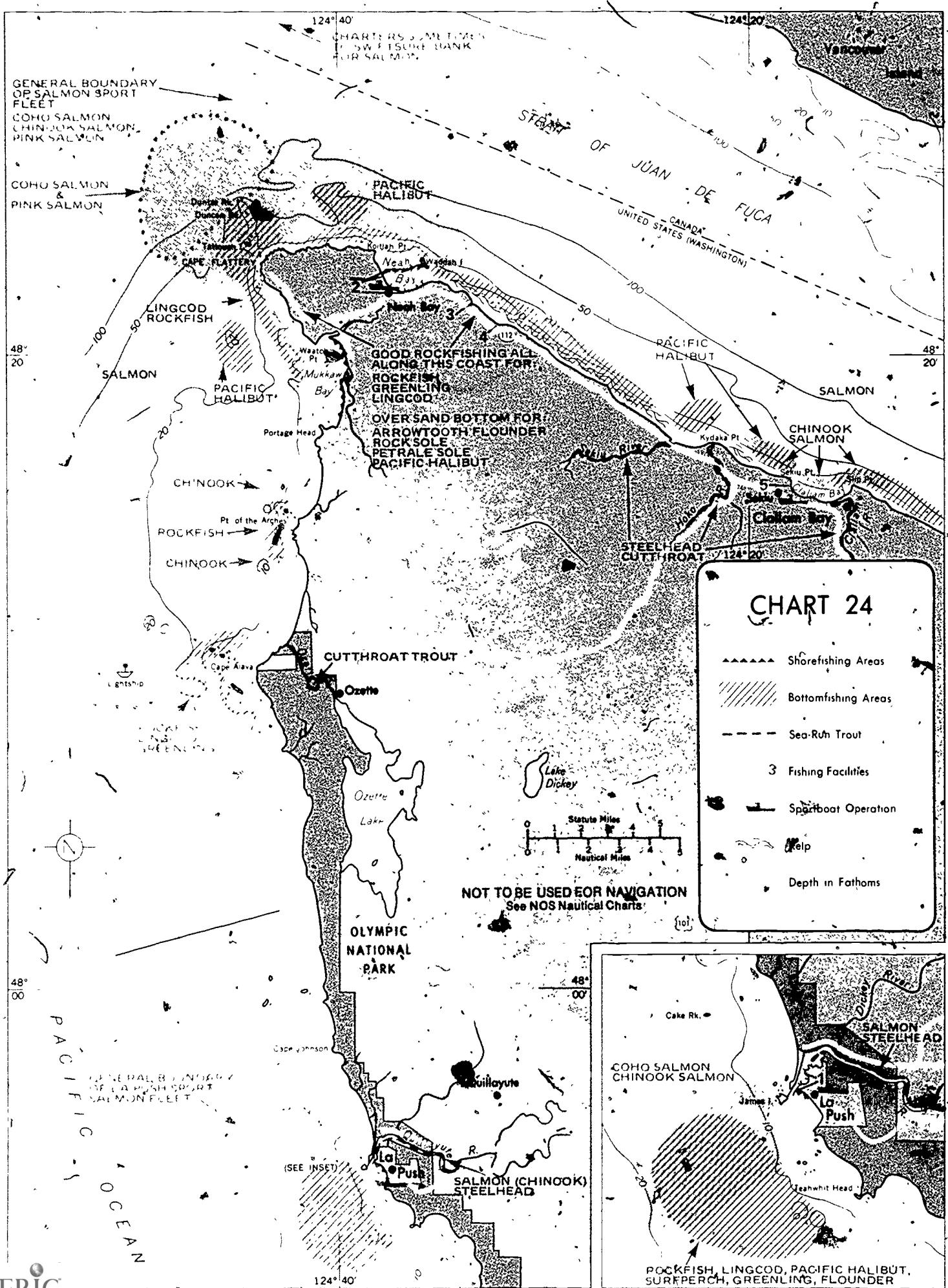


\*Dock.

run cutthroat trout. Between Waatch Point and Portage Head, including Mukkaw Bay, sandy-shore fishing is good for redbtail surfperch. Off rocky areas, fishing is reported to be good for rockfishes, greenlings, and lingcod.

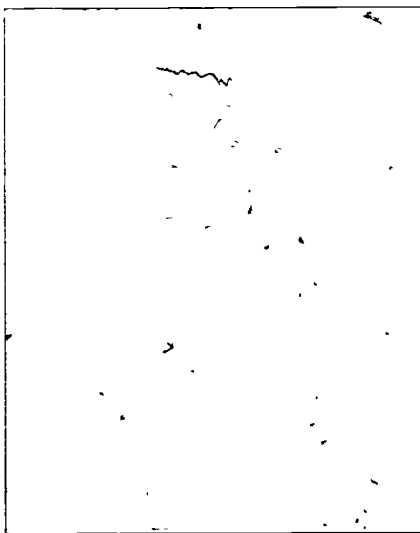
Cape Flattery is a popular fishing area for charter boats out of Neah Bay and for the small-boat angler during calm weather. South of the cape and nearshore is a good area for rockfishing. Offshore are well known areas for catching adult and juvenile chinook, adult and juvenile or feeder coho, and pinks (odd years only). Charter boats from Neah Bay sometimes make trips to Swiftsure Bank, northwest of Cape Flattery, for coho and chinook. Off Cape Flattery and Tatoosh Island are good areas for rockfishing (china, copper, quillback, yelloweye (turkey-red), black, blue, and yellowtail). Around the north side of Cape Flattery, the species fished are similar to those found south of the cape; however, there is considerably more small-boat fishing as the seas are smoother than off the cape, and the port of Neah Bay is nearby. Salmon angling from small boats fishing offshore from Neah Bay to the cape begins in May. Feeder coho are taken from late spring into summer, and adult coho, chinook, and pink salmon are fished in late summer and early fall (odd-numbered years for pink). Feeder chinook are taken in the area all year. Nearshore from Waddah Island west to Cape Flattery are a number of good fishing spots—each with its own local name. The area northeast of Waddah Island west to Kottlah Point has good salmon fishing for small-boat anglers, as well as good bottomfishing for rockfishes, kelp greenling, and lingcod.

The Strait of Juan de Fuca is oriented in a west by northwest



direction and provides an extension of the coastal ocean environment into at least the first portion of the strait. Sea conditions are suitable most of the year for small-boat operations. The absence of ocean swells as one proceeds into the strait and lack of rough water such as found nearshore along open ocean coast make for pleasant boating.

The Sekiu River, about 13 miles east of Neah Bay, is reported to have fishing in the lower sections for sea-run cutthroat trout in the spring and fall. Steelhead run into the river during the winter. The nearby Hoko and Clallam rivers have much the same species and seasonal distribution as the Sekiu River. From Kydaka Point east is an excellent small-boat area for chinook. The nearshore areas off Sekiu Point and Slip Point are some of the more accessible and popular locations for salmon fishing and excellent facilities are available for the small-boat angler. Nearshore along this area of the Strait of Juan de Fuca can be found good fishing areas for lingcod, greenlings, and species of rockfishes such as black, china, copper, and quillback.



## 25 Pillar Point to Discovery Bay

### PILLAR POINT TO ANGELES POINT

The south coast of the Strait of Juan de Fuca from Pillar Point to Angeles Point (Chart 25) has a limited number of facilities for the marine angler. The coast has a sharp shoreline, and the bottom tends to be rocky nearshore. Water depths range from 90 to 120 fathoms offshore, in the northern portion of the chart area, to 90 fathoms off Angeles Point

Most small boats fish for salmon off Pillar Point and to the west, and from Low Point east to Angeles Point. Feeder and adult chinook are taken in the spring and summer; adult coho and pinks in early fall. The main fishing areas are either nearshore for feeder chinook or offshore for coho (August through September) and pink (August)

Several streams empty into the Strait of Juan de Fuca along this section of the coast. The Pvsht River, Deep Creek, West Twin River, and Lyre River all have winter steelhead runs, and sea-run cutthroat trout in varying amounts. In addition to salmon fishing, rockfishes are fished around reef areas, and sole and halibut are fished offshore over smooth bottom. Surfperches are taken along shore; the mouths of Deep Creek and Twin River are among the better spots. The area just east of Pillar Point is noted for its octopus fishery.

Crescent Bay has good facilities for the marine angler and is accessible to the salmon fishing areas along this section of the coast and to bottomfishing grounds for halibut, rockfishes, greenlings, flounder, and Pacific (true) cod. Anglers fish for feeder chinook during the summer, and for adult chinook during the fall from Agate and Crescent bays east to off Angeles Point. Pinks are usually taken in this area during late summer of odd-numbered years.

### PORT ANGELES TO PORT DISCOVERY

The city of Port Angeles is the principal center of commerce on Washington's Olympic Peninsula. Marine sport fishing intensity increases from the Point Angeles area eastward, and fishing areas become more numerous because of the many islands, channels, and bays and their accessibility to the metropolitan areas bordering greater Puget Sound.

North of the town of Port Angeles is the narrow peninsula or "spit" known as Ediz Hook, one of the more popular and easily accessible fishing locations in the area. Port Angeles has excellent facilities for the marine angler and a variety of salmon and bottomfishing is found nearby. Feeder chinook are present all year and are fished on the inside of the "Hook," off the U.S. Coast Guard Air Station at the east end of the Hook, along the outer edge of the Hook, near Angeles Point to the west and Green Point to the east. Adult coho and pinks are taken here and offshore during summer and fall. Adult chinook are caught in summer.

East of Port Angeles, off Green Point, fishing is excellent for halibut and lingcod as well as salmon. Chinook are taken all year (feeders in winter and spring, and adults in summer);

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

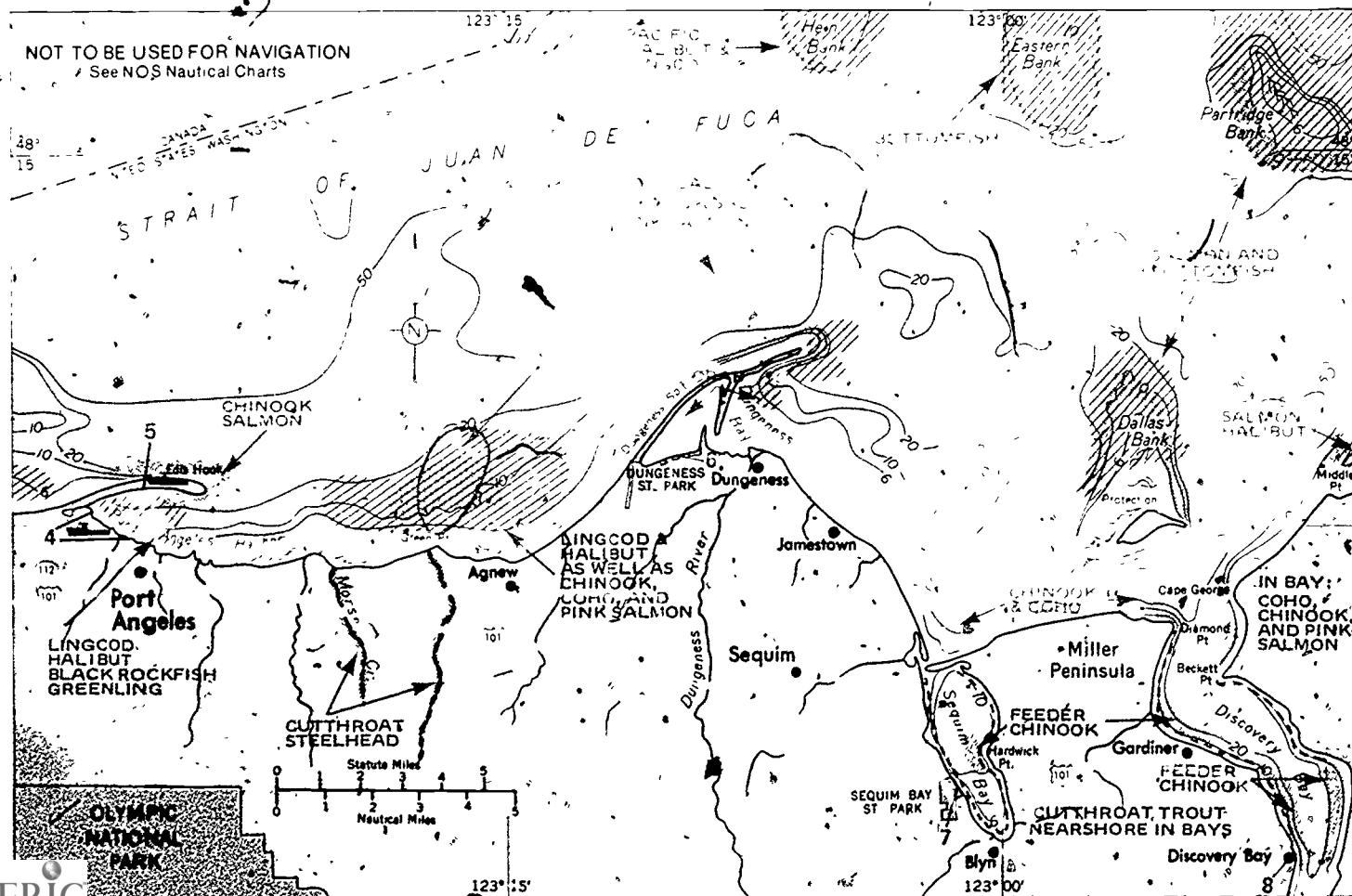
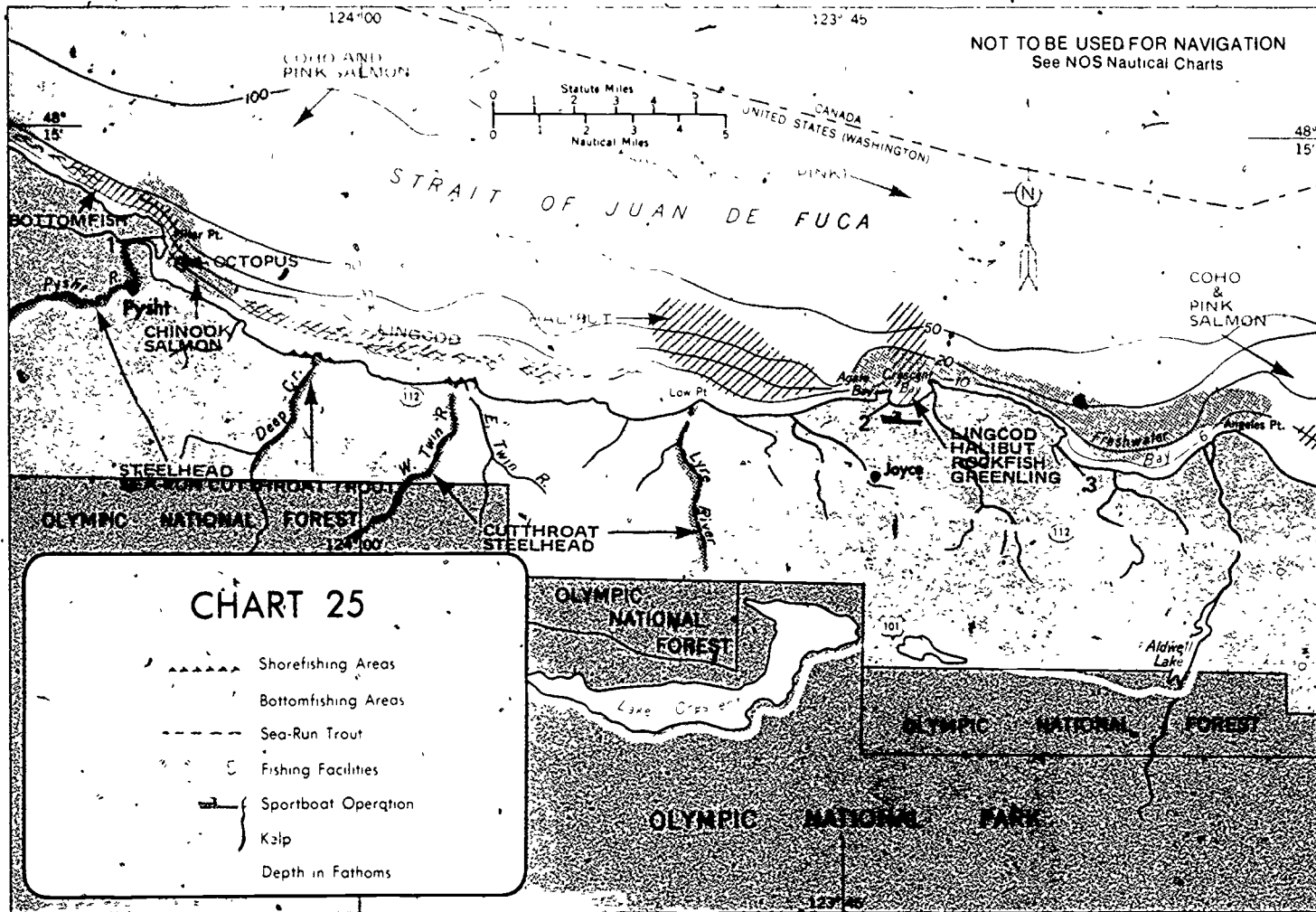
1	● ● ●	Pillar Point
2	● ● ●	Crescent Harbor
3	●	Freshwater Bay
4	● ● ●	Port Angeles
5	● ● ●	Port Angeles, Ediz Hook
6	●	Dungeness State Park
7	●	Sequim State Park
8	●	Discovery Bay

and coho and pinks are available August to October. East of Port Angeles, two small streams are fished for anadromous trout. Morse Creek has winter steelhead and sea-run cutthroats, and the stream emptying into the Strait of Juan de Fuca at Green Point is reported to have fishing for sea-run cutthroats and a few steelhead.

Around Dungeness Spit, feeder chinook are taken all year, and adult chinook frequent the area in the summer. Pinks, coho, and chinook are caught farther offshore during July through September, and coho frequently are taken near the spit, August to October. Crabbing is reported to be good in Dungeness Bay. The Dungeness River has a run of steelhead in the winter, and some are reported to be caught during the summer. Sea-run cutthroat and Dolly Varden trout also are taken in the Dungeness River.

Immediately north of the entrance to Sequim Bay, and south, into the northern half of the bay, fishing is good for feeder chinook during the winter. Coho sometimes are taken in fall; the most popular area is near Hardwick Point. Sea-run cutthroat trout are taken frequently nearshore around the edge of Sequim Bay.

To the north are several offshore banks—Dallas Bank, Eastern Bank, Partridge Bank, and Hein Bank—all good areas for bottomfishing. Some are noted as being good for salmon—the southwestern side of Partridge Bank is well known for coho, chinook, and pink salmon fishing during summer. Bottomfishes taken on or near the



"banks" include rockfishes, lingcod, Pacific halibut, and kelp greenling. Over smooth bottom nearby, occasional catches are made of starry flounder, English sole, Pacific sanddabs, sablefish, striped and pile surfperches, and Pacific cod.

Discovery Bay is one of the better fishing areas for feeder chinook during the winter, and adult coho sometimes are taken here during the fall. Salmon fishing is popular around the bay entrance off Diamond Point and Cape George. Additional areas are fished on the west side north of Gardiner, and nearshore in the lower half of the bay. Sea-run cutthroats frequently are taken close to shore throughout most of Discovery Bay; the most productive places are south of Diamond Point and Beckett Point.



## 26 Whidbey Island to Blaine

Of all the sections along the U.S. west coast, a description of marine fishing in this area (Chart 26), which includes the San Juan Islands and islands and bays along the northwest Washington mainland, is the most complex because numerous islands, channels, and bays provide a wide range of habitats for marine fish, resulting in many excellent locations for marine game fishing.

From along the Whidbey Island's west shore, east of Smith Island to about 4 miles north of Deception Pass, is a well-known fishing area for feeder chinook (all year) and for adult chinook during the early fall preceding the spawning migration of this salmon species to the Skagit and Fraser rivers. Coho are taken frequently in area from April to September with fishing during June to September.

Pinks are taken August and September during odd-numbered years.

Along the south and southeast side of Lopez Island are areas for catching immature or feeder chinook (all year), and one of the more popular places for fishing is off Iceberg Point. Lopez Pass is noted for large feeder chinook in February. Proceeding northwest, popular salmon fishing spots are in Griffin Bay off Friday Harbor and at the northwest end of San Juan Island. These are good areas for catching immature chinook in summer and large chinook from December to February. Bottomfishing is excellent throughout the San Juan Islands. Rockfish species commonly caught are the black, copper, canary, quillback, and yelloweye (rasphead). Lingcod and greenlings are also abundant.

Orcas Island, the northernmost large island of the San Juans, offers good salmon fishing along the east end of the island at Lawrence Point. This is one of the more popular places for fishing chinook, coho, and pinks throughout the summer and early fall. The northwest edge of Cypress Island, which is southeast of Orcas Island, is a good area for feeder chinook, adult coho, and pinks in the summer. Pacific cod sometimes are taken near the southern end of Cypress Island.

North of the San Juan Islands, off Point Roberts, there is spring and summer fishing for feeder and adult chinook, coho, and pinks.

East of the San Juan Islands, off the northwest shore of Lummi Island in the vicinity of Village Point, anglers fish for spring and summer chinook. Also, in Hale Passage between Lummi Island and the mainland, there is winter angling for chinook.

The Nooksack River, which empties into Bellingham Bay, has coho and chinook runs, with fishing in the lower part reportedly best in summer and fall. Steelhead run in the Nooksack during winter. Squalicum Creek also empties into the bay north of Bellingham, and it is reported to be a good fishing area for sea-run cutthroat trout, and sometimes steelhead. Offshore, in the deepwater sections of Bellingham Bay, there is excellent bottomfishing for Pacific cod. Nearshore from south of the city of Bellingham to north of Edison, sea-run cutthroats are taken close to shore, and in the inlet about 4 miles south of Bellingham, winter fishing is excellent for feeder chinooks. Off the mouth of the Samish River chinook and coho fishing is good in the fall. Sea-run cutthroats are fished close to the mouth of the river in summer and also in nearby Edison Slough. The Samish River also has a winter run of steelhead.

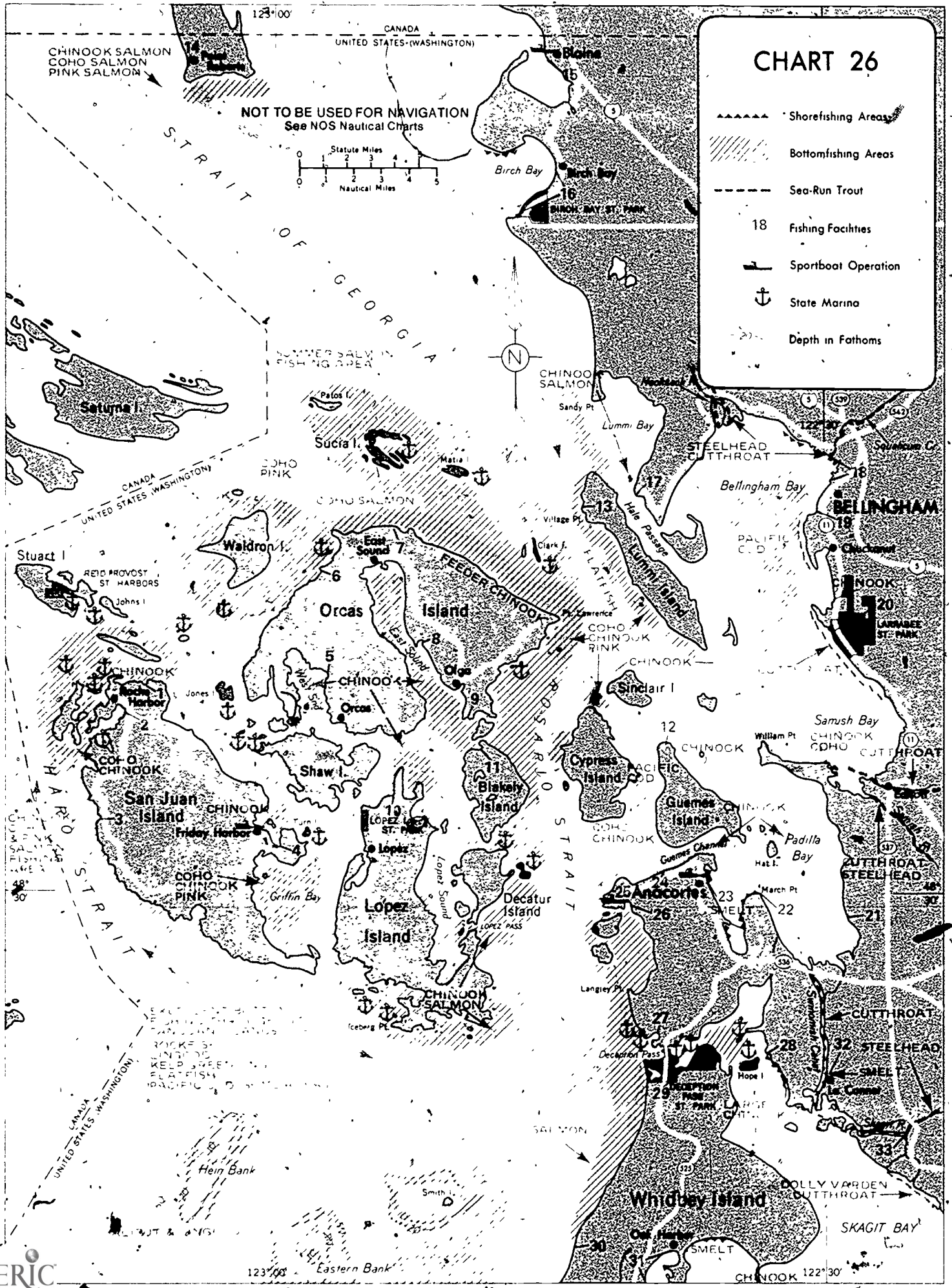
South of Guemes Island, in the Guemes Channel from Hat Island to March Point, feeder chinook are taken

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1	●	Limestone Point
2	● ●	Roche Harbor
3	●	Smallpox Bay
4	● ●	Friday Harbor
5	● ●	West Sound
6	● ●	President Channel
7	● ●	Terril Beach
8	●	Cascade Bay
9	● ●	Obstruction Pass
10	●	Upright Head
11	●	Peavine Pass
12	●	Clark Point
13	●	Village Point
14	●	Point Roberts
15	● ●	Blaine
16	●	Birch Bay
17	●	Gooseberry Point
18	● ●	Bellingham
19	● ●	Fair Haven
20	●	Larrabee State Park
21	●	Bayview
22	●	March Point
23	● ● ●	Anacortes
24	●	Anacortes
25	●	Sunset State Park
26	● ● ●	Skyline Marina
27	●	Deception Pass
28	● ●	Sneeoosh Beach
29	●	Coronet Bay
30	●	Whidbey Island
31	●	Oak Harbor
32	●	La Conner
33	● ●	Skagit River, N. Fork

# CHART 26

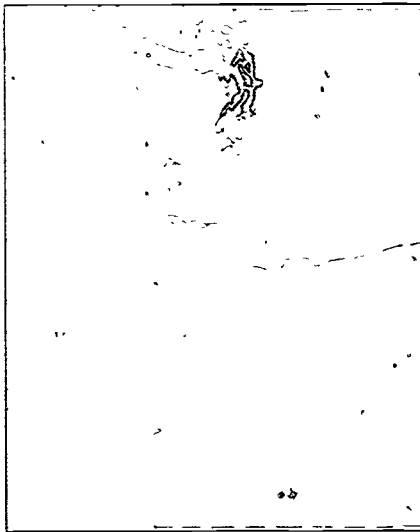
- Shorefishing Areas
- //// Bottomfishing Areas
- Sea-Run Trout
- 18 Fishing Facilities
- ⚓ Sportboat Operation
- ⚓ State Marina
- Depth in Fathoms





during the winter. Smelts run along shore southwest of March Point.

The Deception Pass Channel connects the upper end of Skagit Bay with the Strait of Juan de Fuca. This is a popular area for fishing chinook and coho from early July through August. Some of the more adventurous souls fish from the shores of Deception Pass for rockfishes, greenlings, and lingcod. Southeast of the pass, around Hope Island, there is fair fishing in the spring and summer for large maturing chinook. The Swinomish Channel has angling nearshore for sea-run cutthroat and Dolly Varden trout, and jigging for surf smelt. To the south, sea-run cutthroat and Dolly Varden trout are taken along the shore of Skagit Bay between the north and south forks of the Skagit River. The Skagit River is noted for spring and summer runs of chinook, and in the lower reaches sea-run cutthroat and Dolly Varden trout are taken during the summer. During winter the river has a large steelhead run; some summer-run steelhead also are available.



## 27. Skagit Bay to the Hood Canal

The inside passages of the area north and west of Puget Sound (Chart 27), in addition to being picturesque, are noted for their wide variety of fishing, some being in the transition zone between the Strait of Juan de Fuca and Puget Sound. This chart includes the easternmost area of the Strait of Juan de Fuca from near Admiralty Inlet to Port Susan and Skagit Bay and includes many of the more important fishing grounds in Puget Sound. The Saratoga Passage extends south of Skagit Bay and separates Camano

Island from Whidbey Island. On the east side of Camano Island is Port Susan, and to the south of Port Susan is Possession Sound and the north section of Puget Sound. On the west side of Admiralty Inlet is Port Townsend and the entrance to the Hood Canal.

The depth of water in the main channels in the northern half of this area is 50 fathoms or greater, deepening up to 100 fathoms near the entrance to Puget Sound in the south. The entrance to Admiralty Inlet from the Strait of Juan de Fuca is one of the more shallow channels in the greater Puget Sound area, being only 20 to 30 fathoms deep. The channels have for the most part a mud bottom, although some sand and rocky bottom may be found.

Although salmon is the major objective of fishermen in Puget Sound and Strait of Juan de Fuca, excellent catches can be made of bottomfish—Pacific cod, sablefish, rockfishes, rock sole, English sole, Pacific sanddab, starry flounder, lingcod, kelp greenling, and halibut. Ten of the 53 species of rockfishes are commonly caught in this area, with copper and quillback rockfishes dominant in the catch. There is increasing interest in all these species to supplement the marine angler's catch when salmon are not available.

Near the entrance to Admiralty Inlet, off Point Wilson, fishing is good for feeder chinook during summer and for pinks and coho from August to October. Port Townsend is a good location for catching feeder chinook during the winter season. An artificial reef is reportedly planned for an area just east of Point Wilson. Along the shore from west of Point Wilson to the south end of Port Townsend and around the shores of the bay bordering the west side of Marrowstone Island, fishing is good for sea-run cutthroat trout during summer. Off Admiralty Head (Fort Casey State Park) anglers drift fish for chinook in the winter, and for coho and pinks during their summer and fall migrations through Admiralty Inlet. Fishing grounds off Marrowstone Point, Liplip Point, and in Oak Bay are all good for feeding chinook during the winter. Sea-run cutthroats also are fished along the west shore of Oak Bay; off the shores of Port Ludlow, they are fished during the summer. Throughout all bays in this area, good bottomfishing is reported for starry flounder and rock sole.

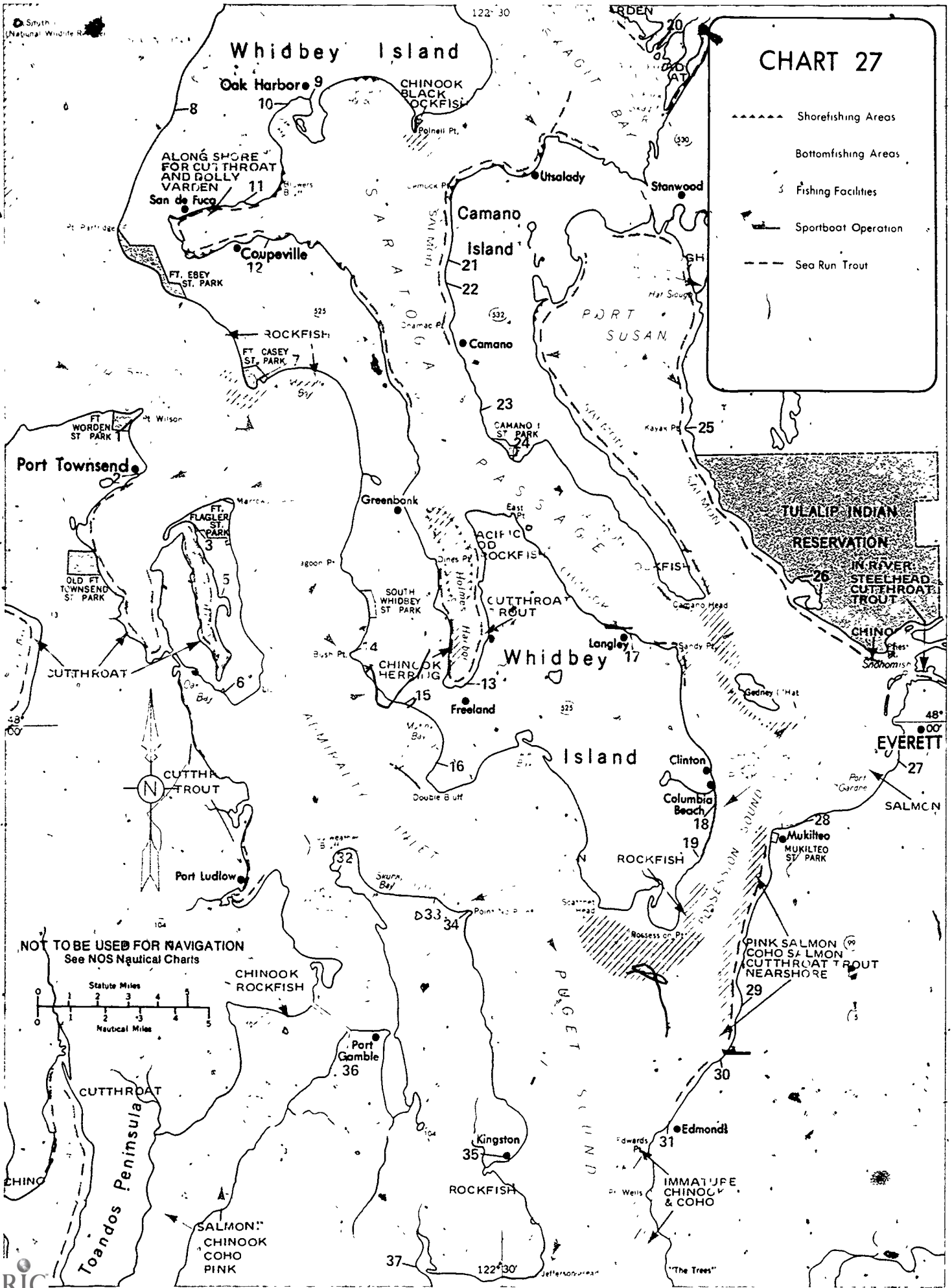
Along the west shore of Whidbey Island, off Lagoon Point and Bush Point, there is fishing in late summer and fall for coho and pinks, and at times some steelhead are taken from the beach at Bush Point. At the north end of Mutiny Bay, immature chinook are frequently caught during late

FACILITY NUMBER	SPORT BOAT OPERATION	PIER FISHING	SKIFF REVITALS	LAUNCHING	JETTY FISHING	LOCATION
1	●					Fort Worden State Park
2		●				Port Townsend
3		●				Kilsut Harbor
4		●				Marrowstone Point
5		●				Mystery Bay
6	●	●				Kinney Point, Oak Bay
7		●				Keystone Harbor
8		●				Whidbey Island
9		●				Oak Harbor
10		●				Oak Harbor
11		●				Penn Cove
12		●				Coupeville
13		●				Holmes Harbor
14		●	●			Bush Point
15		●	●			Mutiny Bay
16		●	●			Mutiny Bay
17	●	●	●			Langley
18		●	●			Columbia Beach
19		●	●			Glendale
20		●	●			Skagit River
21		●	●			Madrona Beach
22		●	●			Sunset Beach
23		●	●			Cama Beach
24		●				Lowell Point
25		●				Kayak Point
26		●	●			Tulalip Bay
27		●	●			Everett
28	●	●	●			Mukilteo
29		●				Norma Beach
30	●	●	●			Meadowdale
31	●	●	●			Edmonds
32		●	●			Foulweather Bluff
33		●	●			Hansville
34		●	●			Point No Point
35		●				Kingston
36		●				Port Gamble
37		●	●			Miller Bay

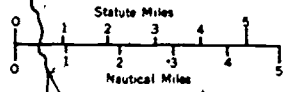
\*Summer only  
\*\*Pier planned 1975-76

# CHART 27

- Shorefishing Areas
- Bottomfishing Areas
- 3 Fishing Facilities
- ← Sportboat Operation
- Sea Run Trout



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



spring and early summer, and inside the bay adult pinks and coho are caught in late summer and early fall. Off Double Bluff, west of Useless Bay, feeder chinook and coho are fished in the spring and summer and adult pinks are sometimes caught during August and September of odd-numbered years. South across the channel from Double Bluff is a popular salmon fishing area off Skunk Bay. Feeder chinook are taken here all year from Foulweather Bluff to Point No Point, and coho are fished from spring through the fall. Pinks are sometimes caught in odd-numbered years in August and September.

One of the most popular places for salmon fishing is off Possession Point at the southern tip of Whidbey Island—a feeding area for chinook and coho in spring and summer. Northeast of Possession Point along the shore is an excellent rockfish angling area, as is a local spot nearshore off Edmonds southeast of Possession Point. Off Edmonds, feeder chinook and some coho are fished during the winter. From Edwards Point north to Mukilteo, sea-run cutthroats frequently are taken by trolling close to shore.

In the Snohomish River tidewater near Everett, sea-run cutthroat fishing is popular during the summer and fall. The Snohomish River has a steelhead run during the winter, and adult coho run during the fall, and pink run in the fall during odd years.

Priest Point is another good site for adult chinook fishing during late summer, and from Priest Point north along the east shore of Port Susan and down the west shore there sometimes is good fishing for sea-run cutthroats during spring and summer. Sea-run Dolly Varden also occur along shore in this area. Kayak Point is a good fishing spot for immature chinook in winter and spring, and off Hat Slough at the mouth of the Stillaguamish River is a good fishing place for sea-run Dolly Varden during spring.

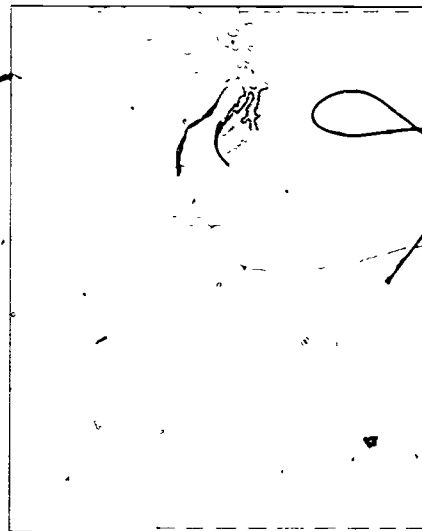
At the south end of Camano Island, between Camano Head and Gedney Island, anglers bottomfish for black and canary rockfishes.

Along the southeast shore of Whidbey Island and off East Point and in Holmes Harbor off Dines Point, immature chinook are taken in the winter and spring. In the southern portion of Holmes Harbor, feeder chinook appear in the early spring, apparently attracted into the harbor by a late winter and early spring herring run. Sea-run cutthroats also are taken in Holmes Harbor in spring.

Onamac Point, on the west shore of Camano Island, is a good fishing place for sea-run cutthroats. From Onamac Point nearshore to off Demock Point at the northwest corner of no Island, fishing is good for mature chinook and coho from early

spring to fall (February to October), and adult chinook sometimes are taken from June through August. Coho also are taken in this area from June to October, and sometimes pinks are caught in August and September during odd-numbered years.

Point Polnell, at the north end of the Saratoga Passage, is a good year-round location for chinook as well as for bottomfish, with black rockfish one of the major species taken. Southwest of Point Polnell, nearshore fishing is excellent for sea-run Dolly Varden near Blowers Bluff and in Penn Cove. Farther south along the east shore of Whidbey Island, sea-run cutthroats occasionally are taken during summer.



## 28 Northern Hood Canal and Central Puget Sound

The waters of central Puget Sound and northern Hood Canal (Chart 28) are heavily fished, largely because of their accessibility to the Seattle metropolitan area.

### HOOD CANAL







Hood Canal extends from north of Port Gamble south to a point northeast of the town Union—a waterway distance of about 55 nautical miles. The canal has channel depths from about 25 to over 90 fathoms and becomes shallower at the south end from Union eastward toward the end of the canal. The canal has sand and mud bottom except for occasional rocky areas off the prominent points. Dabob Bay, is the only major bay extending from the Hood Canal.

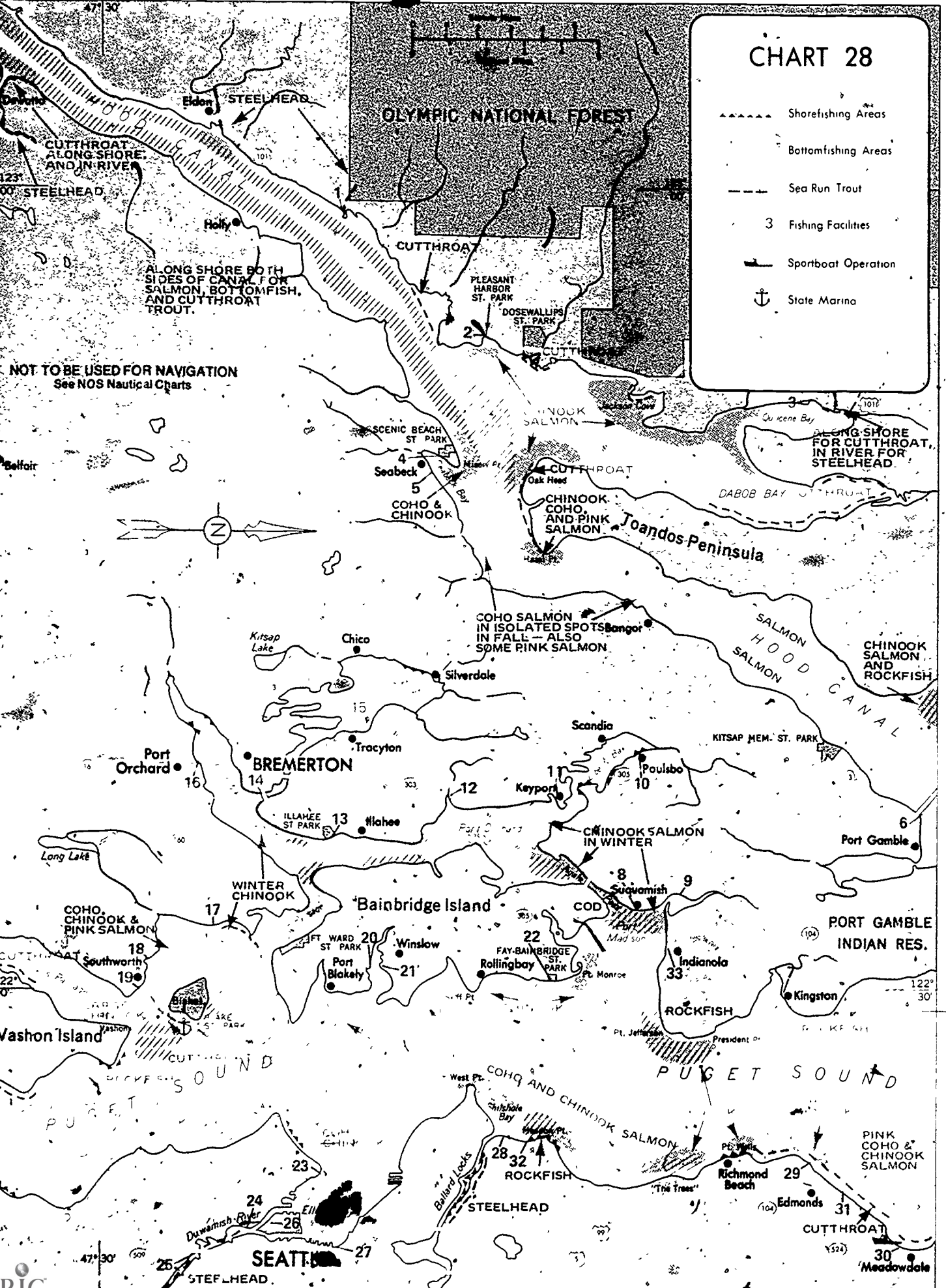
In the north half of the Hood Canal, as in the southern portion,

	FACILITY NUMBER	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●						Triton, Hood Canal
2	● ●						Pleasant Harbor St. Pk.
3	●						Quilcene Bay
4	●						Scenic Beach State Park
5	● ●						Seabeck
6	●						Port Gamble
7	●						Kingston
8	● ●						Suquamish
9	● ●						Miller Bay
10	●						Poulsbo
11	● ●						Keyport
12	● ● ●						Brownsville
13	● ●						Illahee State Park
14	● ●						Bremerton
15	●						Tracyton
16	●						Port Orchard
17	●						Manchester
18	●*	●					Harper
19	●						Southworth
20	●						Eagle Harbor
21	●						Eagle Harbor, Winslow
22	●						Fay Bainbridge State Pk
23	● ●						Elliott Bay
24	●						Duamish River
25	●						Duamish River
26	●						Harbor Island
27	●						Pier 57
28	● ●						Shilshole Bay
29	● ● ●						Edmonds
30	● ● ● ●						Meadowdale
31	●						Edmonds
32	●						Shilshole Bay
33	●						Indianola

\* To be developed  
\*\* Boat access only

# CHART 28

-  Shorefishing Areas
-  Bottomfishing Areas
-  Sea Run Trout
-  Fishing Facilities
-  Sportboat Operation
-  State Marina



there are numerous fishing spots for sea-run cutthroat trout. The fish occur nearshore and are not common in the deeper waters. Off Hazel Point on the Toandos Peninsula fishing is good for feeder chinook and coho salmon in spring and early summer. Adult coho are taken in isolated spots from Bangor to Misery Point from September to December, and adult pinks are sometimes taken in this area during odd-numbered years. In Dabob Bay, feeder chinook frequently are taken along the west shore from Quilcene Bay south to Jackson Cove, from winter to early spring (March and April best).

The Misery Point, Oak Head, and Hazel Point grounds are good for immature or feeding chinook during spring and summer and coho from May through fall.

The deeper areas of the Hood Canal from Misery Point south to off Dewatto offer good bottomfishing for lingcod and rockfishes. Near Dewatto nearshore fishing is excellent for sea-run cutthroats during summer, and offshore fishing is good for coho during October and November. Chinook are taken all year off Eldon near the Hamma Hamma River.

#### CENTRAL PUGET SOUND—SEATTLE AREA

Puget Sound, being readily accessible to the population of greater Seattle, is one of the major marine sport fishing areas in the northwest. Fishing information for the northern end of the sound (Possession Point, Point No Point, etc.) is given on Chart 27. Near the north end of the sound, south of the Edmonds docks, nearshore fishing is good for immature chinook and coho during December to March. Farther south near Point Wells and off Richmond Beach, are good places for catching immature chinook, which times are taken all year

The Puget Sound channel depth ranges from about 100 to 130 fathoms for the area shown on this chart. Leading from the sound are numerous inlets that represent major marine game fishing areas—Port Madison, Port Orchard, Agate Passage, Rich Passage, Sinclair Inlet, Shilshole Bay, and Elliott Bay are but a few of these important fishing areas.

Along the east side of Puget Sound near Seattle, the area from off Meadow Point to West Point has good fishing for adult chinook in August and September. A good rockfishing area for copper and black rockfishes is offshore from the marina north of Ballard. Farther north, from Richmond Beach to West Point, immature chinook are fished during winter and spring. Elliott Bay is an excellent area for catching immature chinook (October to February) and for adult chinook and coho in late summer and fall. A tributary to Elliott Bay, the Duwamish River, has good fall chinook, coho, and winter steelhead runs.

In the greater Seattle area some of the more important shore and nearshore fishing locations are listed below, where some of the opportunities for species other than salmon are of considerable importance. Species most commonly taken by shore and bottom anglers are rockfishes (black, copper, and quillback), pike and striped surfperches, Pacific sanddab, starry flounder, rock sole, English sole, greenlings, sablefish, and Pacific cod. Local areas for fishing are as follows:

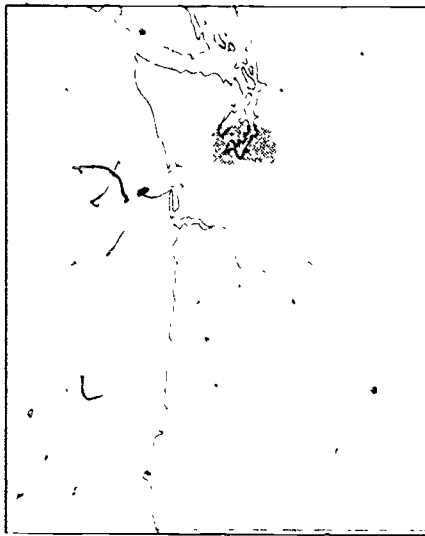
- 1 Richmond Beach (King County Park, W. 190th St.)—Beach fishing for flatfish all year, and good fishing is reported for greenlings and lingcod in winter and early spring.
- 2 Golden Gardens Seattle City Park and Meadow Point—Anglers fish for flatfish and

lingcod and take an occasional chinook and coho nearshore in late summer and early fall. Public fishing dock (suitable for handicapped persons) is a good fishing spot for surfperches, rockfishes, and greenlings.

3. Below Ballard (Chittenden) Locks—Steelhead are caught in winter (limited), sockeye in June and July, and an occasional coho in fall and winter.
4. Pier 57—Public pier fishing for surfperches, Pacific cod, and other species of bottomfish.
5. Alki Beach—Shore fishing (all year) for several species of bottomfish. Occasional catches are made of chinook and coho.
6. Seahurst (King County) Park—Shore fishing for a variety of bottomfish.
7. Vashon Island (King County)—Shore fishing for bottomfish.

Offshore on the west side of Puget Sound, areas off President Point, Point Jefferson, and Point Monroe, and to the south are good fishing areas for adult chinook from December to May—immature chinook are taken all year. Also, from February, through March, fishing is good for immature chinook in Agate Passage.

About the western side and lower half of Bainbridge Island, there are several good grounds for fishing immature chinook in the winter season. Black and copper rockfishes are taken off Port Blakely and Blake Island, and the east shore of Blake Island is noted for sea-run cutthroat trout. Chinook are fished off Point Vashon during winter and spring.



## 29. Southern Hood Canal and Lower Puget Sound

Numerous channels cut the topography of the southern portion of Puget Sound (Chart 29). This area not only has excellent salmon fishing, but is one of the primary areas for fishing sea-run cutthroat trout.

### SOUTHERN HOOD CANAL

The southern portion of the Hood Canal has much of the same species composition in the fishery as that found north in the canal. For information on the north portion of the Hood Canal see Chart 28.

In the southern portion of the canal, immature chinook and coho salmon frequently are taken off the Lillwaup River in late spring and summer. Farther south off Hoodsport is a good location for fishing adult chinook and coho from August to November. Influencing the distribution of salmon in this area are the hatcheries located at Hoodsport and on the Skokomish River (George Adams Hatchery). Off Hoodsport, Ayres Point, Sisters Point, and Union, fishing is good for immature chinook and coho during winter and spring, and sometimes for adult coho in October and November. Sea-run cutthroats reportedly are taken all year in this area. The Skokomish River has a steelhead run in the winter; some also are taken in summer. Occasional catches of cutthroats are made in the tidal area and about the river mouth.

### SOUTHERN PUGET SOUND

Along the east shore of Vashon Island, below Point Béale, anglers take chinook in winter and spring. This area also has good fishing

for rockfishes. At the south end of Vashon Island in the lower reaches of Puget Sound and off Quartermaster Harbor, anglers fish for immature chinook during the early winter. Off Poverty Bay (Redondo), immature chinook are fished during winter and spring, and some adult coho and pinks are taken during the summer and fall.

The Point Defiance area, close to the city of Tacoma, is one of the more popular all-year fishing locations for coho and chinook. Fishing is best during late summer. Commencement Bay is also a popular place for fishing adult coho in the fall and chinook in late summer and fall; pinks are occasionally taken in the bay. Immature chinook are present all year. The Puyallup River, which empties into Commencement Bay, is reported to have a good run of winter steelhead.

From south of Point Defiance to near Fox Island is a good fishing area for rockfishes and lingcod. As in the northern part of Puget Sound, rockfishes are prevalent (black, copper, quillback, canary, and yellowtail), as well as pile and striped surfperches. About the southeast end of Fox Island, both immature and adult chinook are taken—immature fish are caught in the winter and spring, and adults in late summer. From Dalco Passage into The Narrows, immature chinook are said to be taken all year and coho from late spring through summer. South off Point Fosdick is a good fishing place for Pacific cod during winter and spring.

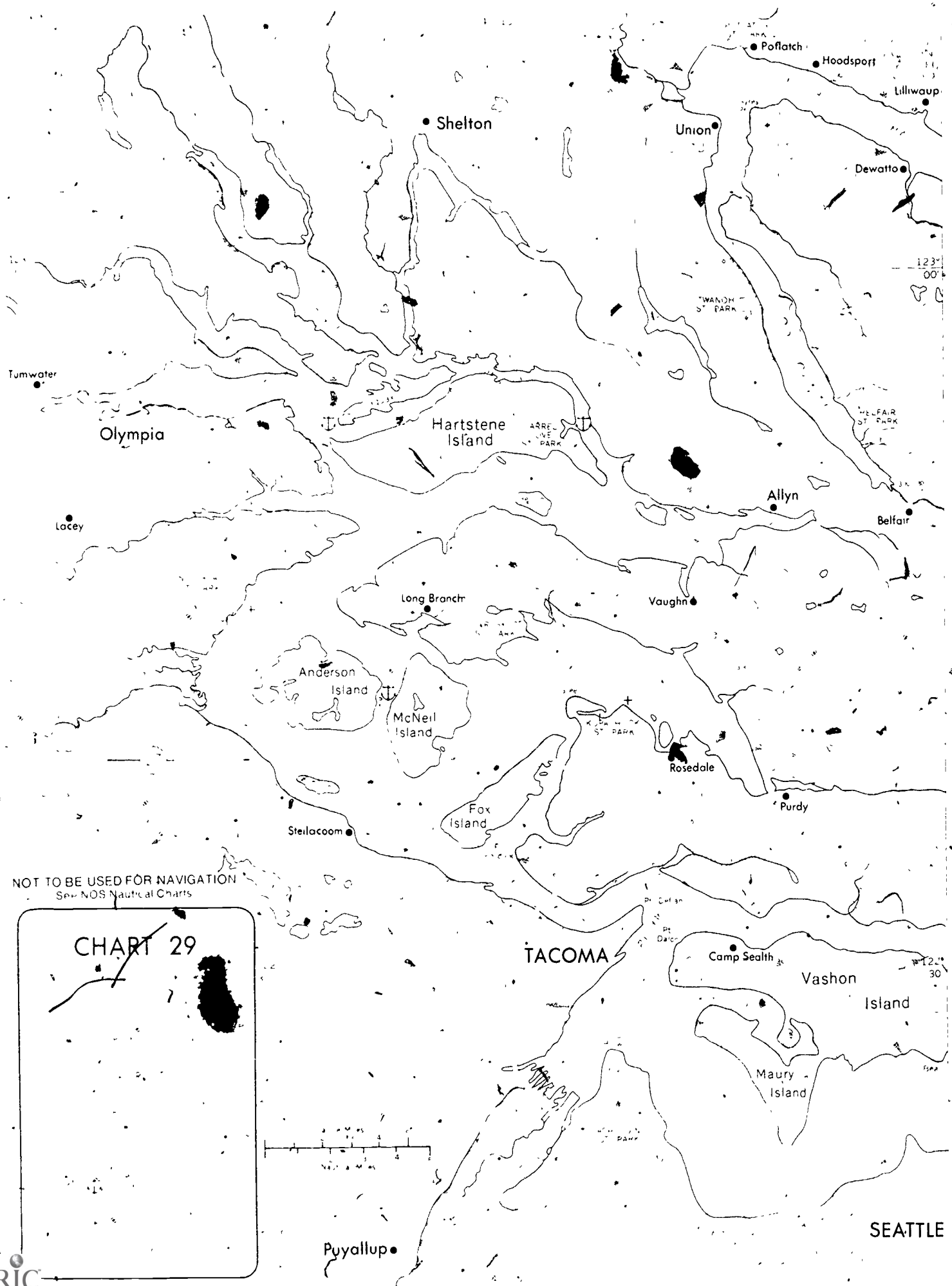
The eastern shore of Henderson Bay is a winter fishing area for immature chinook; off Green Point they reportedly are taken all year. Local anglers say the best fishing area for winter chinook is from near Rosedale north. In late summer, maturing chinook often are found along the northwest shore of Henderson Bay. South of McNeil Island is a good fishing area for immature chinook in winter and spring, also off Devils Head and around Johnson Point. Resident coho are caught in late spring and summer in these two areas as well as in Henderson Bay.

Off the south tip of Anderson Island, chinook are taken year-round. Best fishing, however, is in the winter and spring; the largest fish are caught in spring. The Nisqually River also has winter steelhead and sea-run cutthroats.

In the lower reaches of Puget Sound, immature chinook are present in many areas in spring and early summer. Some adult chinook are taken in Budd Inlet during the late summer. In this southern area, in addition to the anadromous species of salmon and cutthroat trout, large numbers of surfperches (particularly pile and striped) are taken about docks, pilings, or other obstructions, and surf smelt are known to appear in some of the inlets.

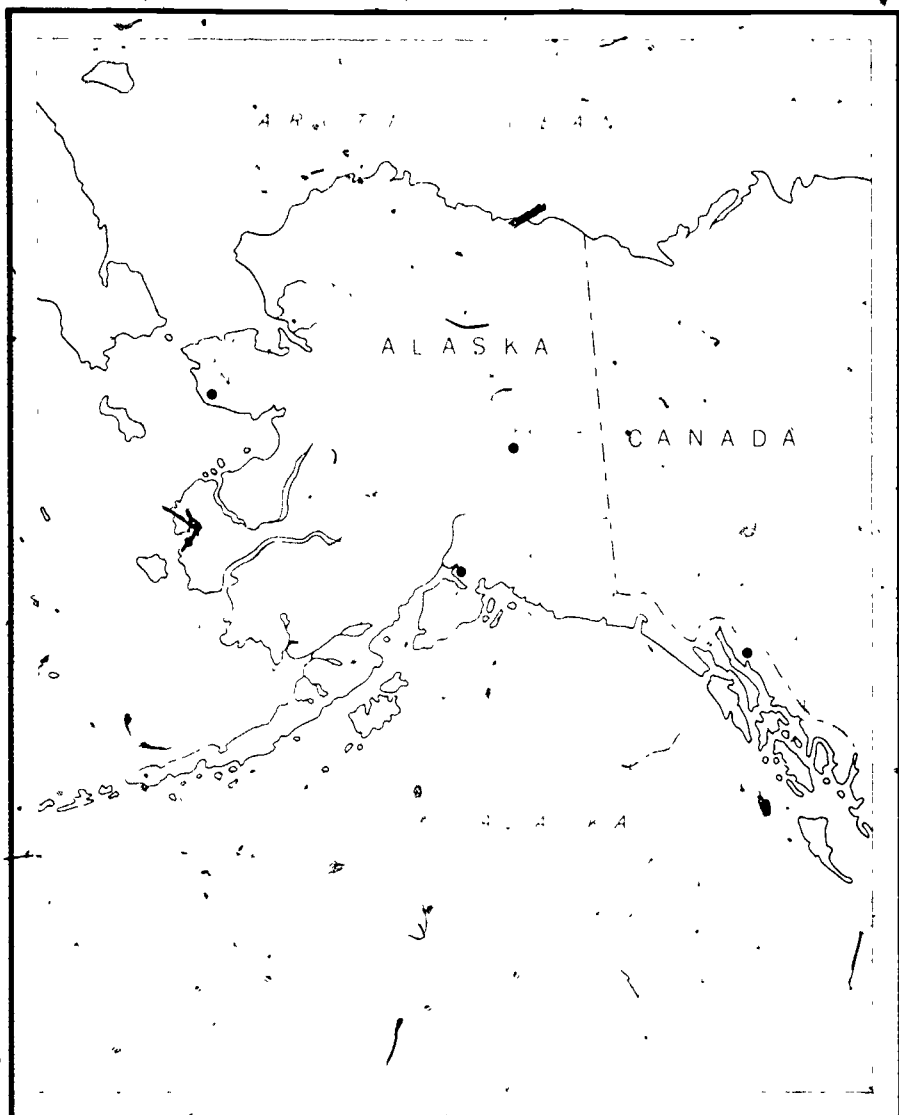
FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1	● ● ●	Hoodsport
2	●	Potlatch
3	● ●	Union
4	●	Tahuya
5	●	Twanoh State Park
6	●	Belfair State Park
7	● ●	Allyn
8	●	Fair Harbor Marina
9	●	Home
10	●	Jarrel Cove
11	●	Graham Point
12	●	Arcadia
13	●	Budd Inlet
14	● ●	Olympia
15	●	Boston Harbor
16	● ●	Johnson Point
17	● ●	Johnson Point
18	● ●	Steilacoom
19	●	Tacoma
20	● ● ●	Point Defiance Park
21	● ● ● ●	Tacoma
22	●	Tacoma
23	●	Tacoma
24	●	Tacoma
25	● ●	Tacoma
26	●	Redondo
27	●	Saltwater State Park
28	●	Des Moines
29	●	Burton
30	● ● ●	Gig Harbor
31	●	Point Fosdick
32	●	Wollochet Bay
33	●	Fox Island
34	●	Horsehead Bay
35	●	Wauna
36	●	Glen Cove
37	●	Home
38	●	Drayton Passage
39	●	Vaughn Bay



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

**CHART 29**



## ALASKA

The name Alaska comes from the Aleut word, meaning, "The Great Land." The 49th State truly deserves its name for it is as big as England, France, Spain, and Italy combined and stretches over an even greater distance. It is a land rich in natural resources—fish, shellfish, game, oil, minerals, and timber—and has some of the most beautifully rugged territory in North America.

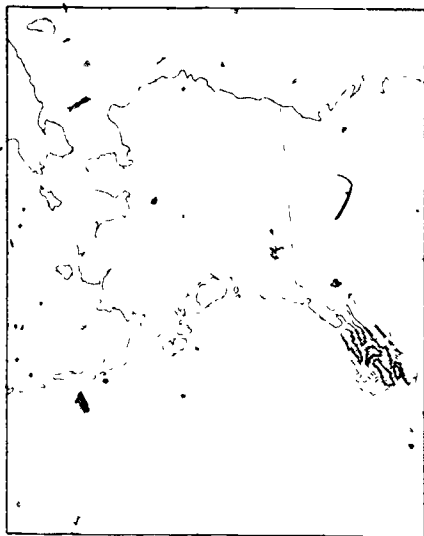
Fishing has always been Alaska's biggest industry, with salmon the mainstay of that industry. All five species of Pacific salmon are found in Alaskan waters. The three that are of prime interest to anglers are the chinook (king), coho (silver), and the pink. The sea-run trouts and char, close relatives of the salmon, are also popular game species and plentiful in and around Alaska's coastal streams. Bottomfishes are abundant and include halibut, flounder, rock-

fishes, lingcod, and greenlings.

The fishing grounds plotted on the following charts tend to reflect the intensity of the fishing effort rather than the availability of fish. Sport fishing is probably as good or even better in unshaded areas, but these places are less accessible than those near population centers and, therefore, are fished less frequently.

Most recreational fishing in salt water takes place in the waters of the southeastern Alaska Panhandle from the Dixon Entrance north to Yakutat and in the south central or Gulf Coast region, including Prince William Sound, Kenai Peninsula, Cook Inlet, and Kodiak Island. Saltwater angling in the remaining coastal areas to the west and to the north is primarily subsistence fishing, and relatively inaccessible to most recreational anglers.





### 30-31 Southeastern Alaska

The southeastern section of Alaska (Charts 30 and 31), sometimes called the Alaska Panhandle, consists of a narrow stretch of mainland and a labyrinth of numerous islands, fjords, and deep waterways which form the Inside Passage. The mountainous and heavily forested islands shelter these waterways from the Pacific Ocean. The panhandle has a temperate, rainy climate with warm winters and cool summers. The temperature seldom drops to zero Fahrenheit, and the annual rainfall varies from 25 to 155 inches.

Much of the land is part of the Tongass National Forest, the largest and, to some people, the most beautiful of our country's national forests. Many glaciers are still carving, grinding, and forming the land. Large rivers have their sources in these glaciers and are laden with silt, but tributaries are clear and have abundant populations of game fish. Coastal streams are short and fairly swift, flowing through deep, narrow, and densely wooded valleys.

Cities and towns, isolated by the maze of waterways, depend heavily on water and air transportation. Road systems tend to be related to the development of each particular town rather than forming an interconnected series of roadways. Alaska's "marine highway," the State ferry system, has

terminal facilities at Ketchikan, Wrangell, Petersburg, Sitka, Hoonah, Juneau, Haines, and Skagway.

#### SALMON FISHING

Excellent salmon fishing can be found close to many harbors and moorages. Best fishing spots are usually around prominent points of land and where tidal currents are swift and strong. Air and charter boat services are available at many of the larger cities for anglers who wish to fish in the more remote areas. Boats used in salmon fishing range from small skiffs to large cruisers and yachts. You should consult tide tables and inquire locally about the waters you plan to fish, because currents can be tricky in some channels and extreme fluctuations between high and low tides can leave you stranded.

In a number of bays in southeastern Alaska, large chinook start running in April and May and sometimes earlier in the Ketchikan area. They continue to run through June and July, then fishing tends to taper off in August as the mature fish leave for spawning grounds. In many areas immature chinook or "feeders" are available year-round and weather, rather than the absence of salmon, restricts fishing activity.

Coho appear in southeastern Alaska later in August, September, and October. In certain areas such as around Ketchikan and Sitka there are earlier runs in July, and cohos occasionally show up as early as June in the Juneau area. Fish caught in September and October are larger, but fewer in number.

Pinks usually begin their run in June, and the run lasts until September

and sometimes later in certain areas. Pinks ordinarily are not found far from shore and do not run up streams for great distances. The fishing is usually best in July and August during years of major abundance.

Some chums are caught around the time of the coho runs, but these fish are not considered as desirable as other species of salmon. Anglers seldom take sockeye or red salmon in salt water in southeastern Alaska.

Salmon derbies are celebrated annually at Ketchikan, Juneau, Sitka, Craig, Thorne Bay, Coffman Cove, and Whale Pass.

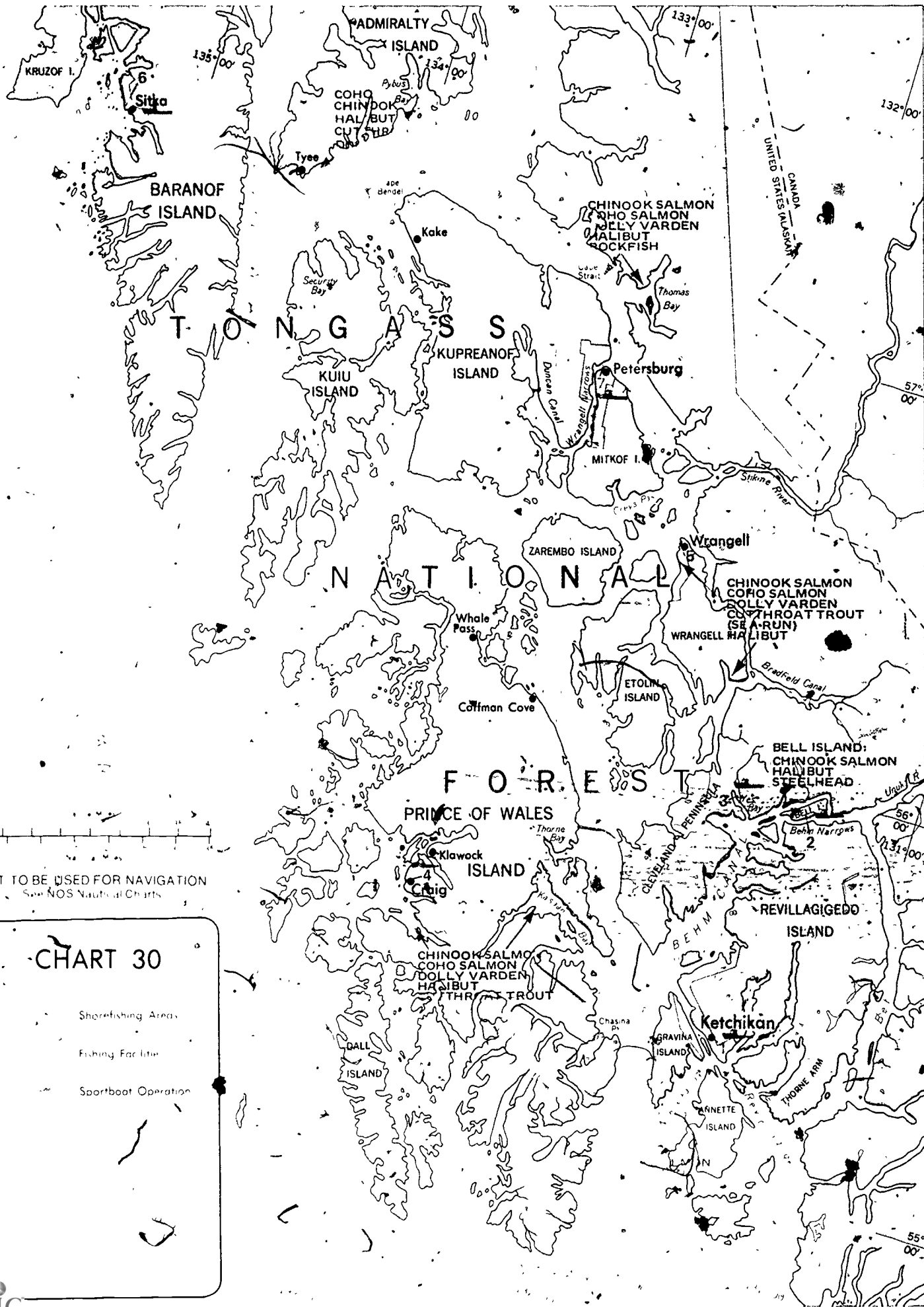
#### BOTTOMFISHING

Bottomfishes such as Pacific halibut, rockfishes, lingcod, starry flounder, sablefish, sculpins, and greenlings are plentiful in the waters of the Inside Passage. Although these fish are considered by some to be less glamorous than salmon and sea-run trout, an increasing number of anglers are recognizing their worth as fine game and table fish.

Pacific halibut are common and

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

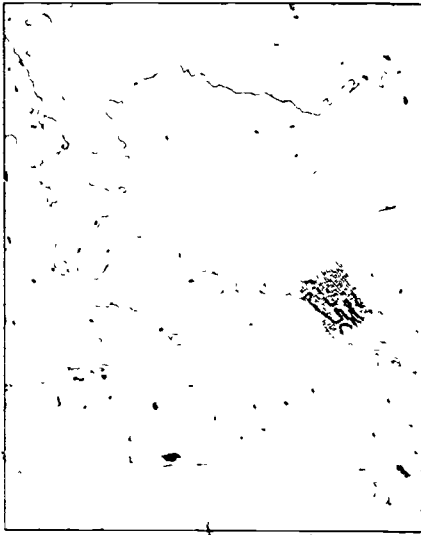
1	● ● ● ● ●	Ketchikan
2	● ● ●	Bell Island
3	● ●	Yes Bay
4	● ●	Craig
5	● ●	Wrangell
6	● ● ●	Sitka
7	● ● ●	Petersburg



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

**CHART 30**

- Shorefishing Areas
- Fishing Facilities
- Sportboat Operation



grow to monstrous proportions in Alaska waters. They are taken usually from about April or May through August over fairly flat bottom at about 25 to 35 fathoms. Halibut are slightly less abundant near Ketchikan but around Petersburg and Wrangell a significant number are taken in April. May and June while trolling for chinook. Farther north around Juneau halibut are taken consistently by anglers fishing at the south tip of Shelter Island and in the Stephens Passage area. Other good locations are Sitka Sound and around Bell Island and Haines.

Rockfishes are found throughout southeast Alaska, but best fishing appears to be around Ketchikan. Although available in selected areas around Juneau, they are generally scarce in these waters compared to others. Rockfishes, or snappers, are taken over rock piles and reefs at about 25 to 60 fathoms and most are taken from May to September. The common rockfish varieties in southeastern Alaska are the yelloweye (rasphead or red snapper), canary, and quillback. Other species such as the dusky, black yellowtail, copper, and silvergray rockfishes also enter the catch.

Lingcod also are taken, usually over rocky areas at about 10 fathoms. Other bottomfish caught include kelp greenling, whitespotted greenling, rock

greenling, sculpin (Irish lords), Alaska pollock, Pacific hake, Pacific cod, dogfish and other sharks, English ("lemon") sole, and arrowtooth flounder.

#### SHORE FISHING

For those anglers who either by circumstance or choice would rather fish from shore than venture out in a boat, Dolly Varden, sea-run cutthroat and steelhead trout are within casting reach at the mouths of many coastal streams and along beaches. Dolly Varden is by far the most abundant and in southeastern Alaska this species is taken from May through October. Cutthroats also begin running in May and fishing usually lasts through August, tapering off in September. Steelhead run in many coastal streams in the spring and fall.

In the southern Alaska Panhandle (Chart 30) shore anglers fish along the Mitkof Island road system south of Petersburg. Blind Slough, which runs adjacent to the highway, can be fished in its entirety by walking a short distance off the road. Fishing effort is mostly in the intertidal area for coho during the runs in August and September. Dolly Varden and cutthroats are taken throughout the year with best fishing during September.

Across Wrangell Narrows, shore as well as skiff fishing is good at Petersburg Creek for steelhead, cutthroats, Dolly Varden, and salmon. Access to this area is by boat from Petersburg. A popular trout fishing spot is at the head of tidewater, which is heavily fished during the spring and summer and again in the late fall. The intertidal area extending 2 miles

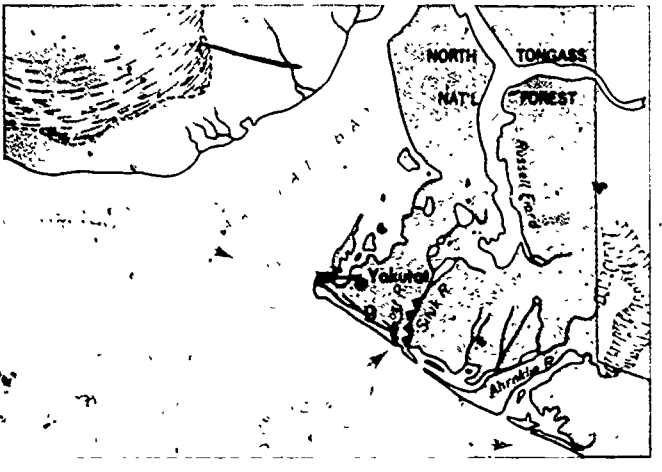
upstream, is the favored location for pinks, chums, and coho.

In the northern Alaska Panhandle (Chart 31) shore fishing is very popular around the Juneau-Douglas Island area. Most fishing is for Dolly Varden, although some cutthroats, steelhead, pinks, coho, and chinook also are taken. Most shore fishing occurs from spring through September. Popular spots are around the mouths of such streams as the Fish, Salmon, Peterson, and Shepp creeks as well as beaches near the Eagle River.

Farther north near Yakutat, the Situk River, Itallo River, and Lost River offer some of the best trout and salmon fishing in the State. The Situk River, reachable from Yakutat by air or road, has excellent fishing for large steelhead. The Situk River's reputation as a trophy steelhead stream seems to be largely due to the presence of repeat spawners. The older female fish evidently have a high survival rate after initial spawning, and thus are able to return again in appreciable numbers the following year.

- 1 ● ● Angoon
- 2 ● ● ● ● Juneau
- 3 ● ● Douglas Boat Harbor
- 4 ● ● Auke Bay
- 5 ● ● Tee Harbor Marina
- 6 ● ● Hoonah
- 7 ● ● Gustavus, Glacier Bay
- 8 ● ● Haines
- 9 ● ● Yakutat

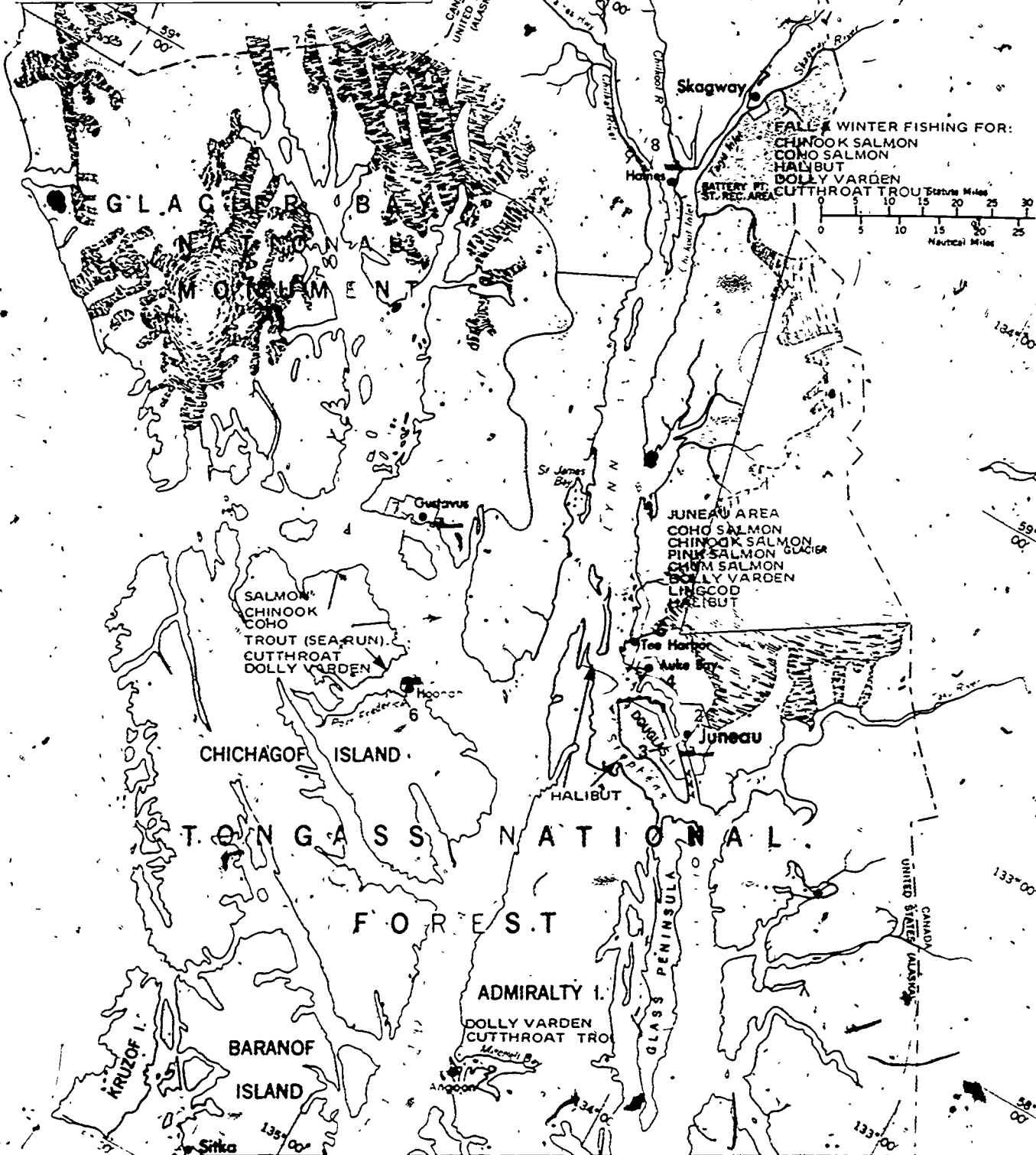
FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SALES RENTALS  
 LAUNCHING  
 IFTTY FISHING  
 LOCATION

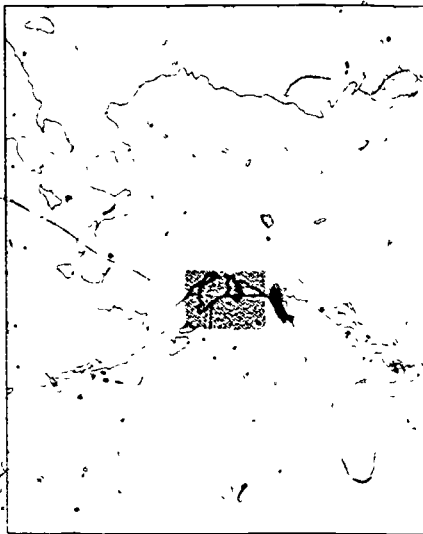


# CHART 31

- Shorefishing Areas
- Fishing Facilities
- Sportboat Operation

NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts





## 32 Cordova to Cook Inlet

This region fronting the Gulf of Alaska includes Prince William Sound, Kenai Peninsula, and Cook Inlet (Chart 32). The coast is flanked by the Alaska Range which has some of the highest mountains in North America. These mountains block off much of the cold northerly winds, and this along with the influence of ocean breezes contributes to the Gulf's rainy and often stormy climate. It is Alaska's most populous region and has the State's first producing oil wells. The area is known for farming, fishing, and mining.

Some of the finest fishing grounds are within relatively easy access of coastal towns joined together by a thousand miles of highway. Salmon derbies are held at Seward and Valdez, and a halibut derby is celebrated at Homer.

### PRINCE WILLIAM SOUND

In Prince William Sound most saltwater angling is centered around the towns of Cordova, Valdez, and Port Wells. The major fishing effort is for coho, which occur from mid-July through mid-September. Valdez and Cordova have some winter fishing for chinook, and pinks are taken by

trotting in salt water in July and in streams during July and August. Chums, although present in the sound and its drainages, are not fished much because they do not appear to bite readily in salt water.

Bottomfish such as halibut, rockfishes, and lingcod are available year-round in most saltwater bays. Some common species of rockfishes taken in Prince William Sound are the dusky, black, and copper.

Cordova on the eastern shore of the sound, was once a copper mining town and is now a fishing center. Ferry service provides connections to Valdez and the State highway system. Cordova offers nearby winter fishing for chinook during January, February, and March. Coho fishing is excellent, and often lasts into October—pier anglers sometimes take coho from the downtown piers.

Farther north at the town of Valdez, the Alaska highway system connects the Gulf coast to the Yukon country. This city was virtually rebuilt and literally moved 4 miles after being severely damaged by the 1964 earthquake and tidal wave. Fishing for chinook is between February and late May, and coho are taken here in August and September. Considerable interest is growing in halibut fishing in the Valdez Arm area and there is a small but developing cod fishery off the Valdez City Dock.

Across Prince William Sound fishing is good for coho at Port Wells. A small-boat harbor has just been completed at Whittier and it is expected that a sport fishery will develop rapidly here. The town is within relatively easy access from Anchorage and points north and east with connections via ferry to Valdez and via

rail ferry aboard the Alaska Railroad to Portage on the Anchorage-Seward Highway.

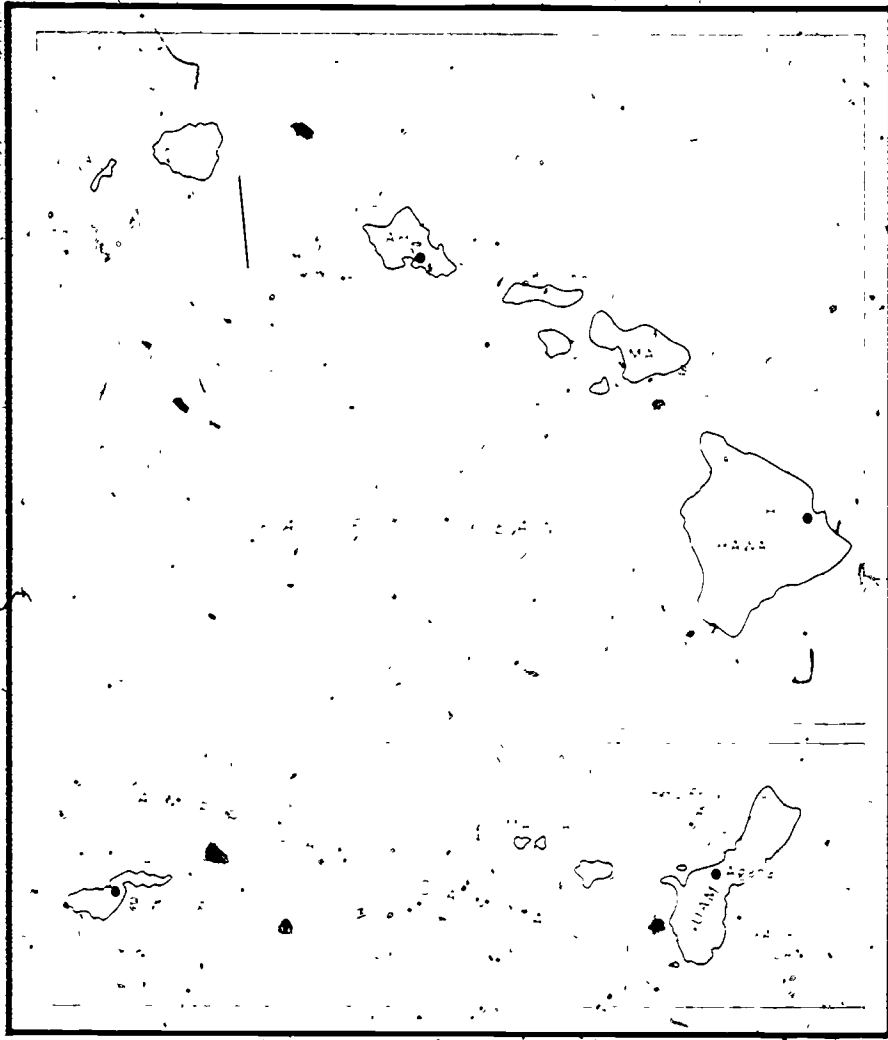
### THE KENAI PENINSULA AND COOK INLET

Seward, on Resurrection Bay, is the main port of the Kenai Peninsula and south terminus of the Alaska Railroad. Most fishing is for coho, although pinks and some chinook also are caught. Resurrection Bay has been closed to commercial fishing for coho since 1965. A coho fishing derby is held each year in August and is very popular with local and visiting sport anglers. Coho start running in the bay about mid-July and the run usually lasts till September with best fishing in August. Shore fishing is popular in the Seward area, particularly around Lowell Point where Dolly Varden, pinks, and some coho are caught by casting from the beach.

There is good bottomfishing for rockfishes and lingcod over rocky areas at the entrance to Resurrection Bay. Black, yelloweye (red snapper), yellowtail, and tiger rockfishes are some of the species landed around Rugged and Cheval islands. Most bottomfishing occurs from mid-May

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- |   |         |          |
|---|---------|----------|
| 1 | ● ● ●   | Cordova  |
| 2 | ● ● ● ● | Valdez   |
| 3 | ● ● ●   | Whittier |
| 4 | ● ● ●   | Seward   |
| 5 | ● ● ●   | Homer    |



## PACIFIC ISLANDS

The following pages describe marine game fishing around the tropical islands of Hawaii, American Samoa, and Guam. The Hawaiian Islands rise out of the central Pacific Ocean near the margin of the tropics, while American Samoa lies below the equator approximately 2,600 miles south of Honolulu. Guam, the largest and westernmost territory of the United States, is located in the western Pacific Ocean less than 1,700 miles south of Tokyo, Japan. Although widely separated geographically, these islands all fall within the boundaries of a large region characterized by a distinct marine fauna—a region that extends from East Africa across the Indian Ocean into the central Pacific Ocean. Thus many similar or identical species occur in Hawaii, American Samoa, and Guam.

All of these islands are volcanic in origin with the sea bottom plunging fairly rapidly away from shore, and in many locations excellent deep-sea fishing opportunities are available within a relatively short distance from port. Some of the billfish and tuna grounds have produced record-sized fish and earned a worldwide reputation in big-game fishing

circles. But although the glamour and excitement of deep-sea fishing draws many to the offshore grounds, much of the fishing conducted about the islands is for the great variety of smaller tropical fishes found over inshore reefs and along rocky and sandy shores. The most sought-after fishes are not necessarily the largest or the ones with the best fighting ability—many islanders judge the value of a fish by its taste and by the traditional values attached to catching it and preparing it for the table.

Visitors should always first check locally about the area they plan to fish unless accompanied by a professional skipper or guide. If you intend to fish from shore, ask about surf conditions, accessibility, and restricted areas. Double check the edibility of your catch, particularly in American Samoa and Guam, where a few species are reported to be poisonous. Those known or suspected to be poisonous are discussed in the accompanying text and in the section on Marine Game Fishes of the Pacific Islands.

until mid-July when coho fishing begins

Around the tip of the Kenai Peninsula is the town of Homer. On Kachemak Bay Homer is blessed with a mild climate with winter temperatures seldom falling below zero Fahrenheit, and ocean breezes keep summer temperatures from going much above 70°F. Recreational use of Kachemak Bay previously was relatively low because of poor road connections with Anchorage and neighboring communities, but since completion of the Sterling Highway and construction of a new smallboat harbor, an increasing number of sport anglers are coming to Homer to fish for halibut, coho, pinks, Dolly Varden, flounders, cod, and sablefish. Homer Spit offers pier and shore fishing, and there is shore fishing for coho around Mud Bay on Kachemak Bay.

Most sport fishing on the Cook Inlet side of the Kenai Peninsula coast is in rivers and streams that empty into the inlet. To help rebuild chinook salmon stocks, badly depleted by the fisheries' sport and commercial fishing for chinook was prohibited in Cook Inlet and drainages in 1964. In 1966, the Alaska Department of Fish and Game allowed a regulated sport harvest from certain streams and rivers, including the Kenai River, Anchor River, Ninilchik River, and Deep Creek. Fishing for chinook usually starts in late May and continues until mid-June in lower peninsula streams. Chinook are then followed by Dolly Varden, which are available in mid-July. In August and through September, coho and steelhead enter the streams of the lower peninsula; steelhead may continue to run until October. Pinks also are taken in considerable numbers from peninsula streams during years of major pink runs. Best times for pinks and coho are in July and August.

A saltwater fishery (from boats) recently developed in Cook Inlet south of Deep Creek is expanding rapidly, although rough water is frequently a limiting factor.

The Kenai River has gill net fishery for smelt or eulachon (hooligan to Alaskans) each May. The smelt are caught generally from the terminus of the Kenai River at Cook Inlet to about 22 miles upstream. Most of the fishing (largely in May) is along the 1-mile stretch of the river adjacent to the city of Kenai. Nearly all fish are captured with a gill net tied along a long pole. Smelt are also taken in spring in other Cook Inlet streams and in the Turnagain Arm area, but most fishing in these areas is done with dip nets.

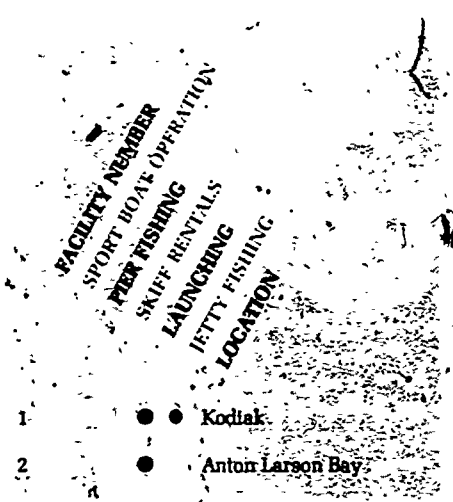
### 33 Kodiak Island and Points West

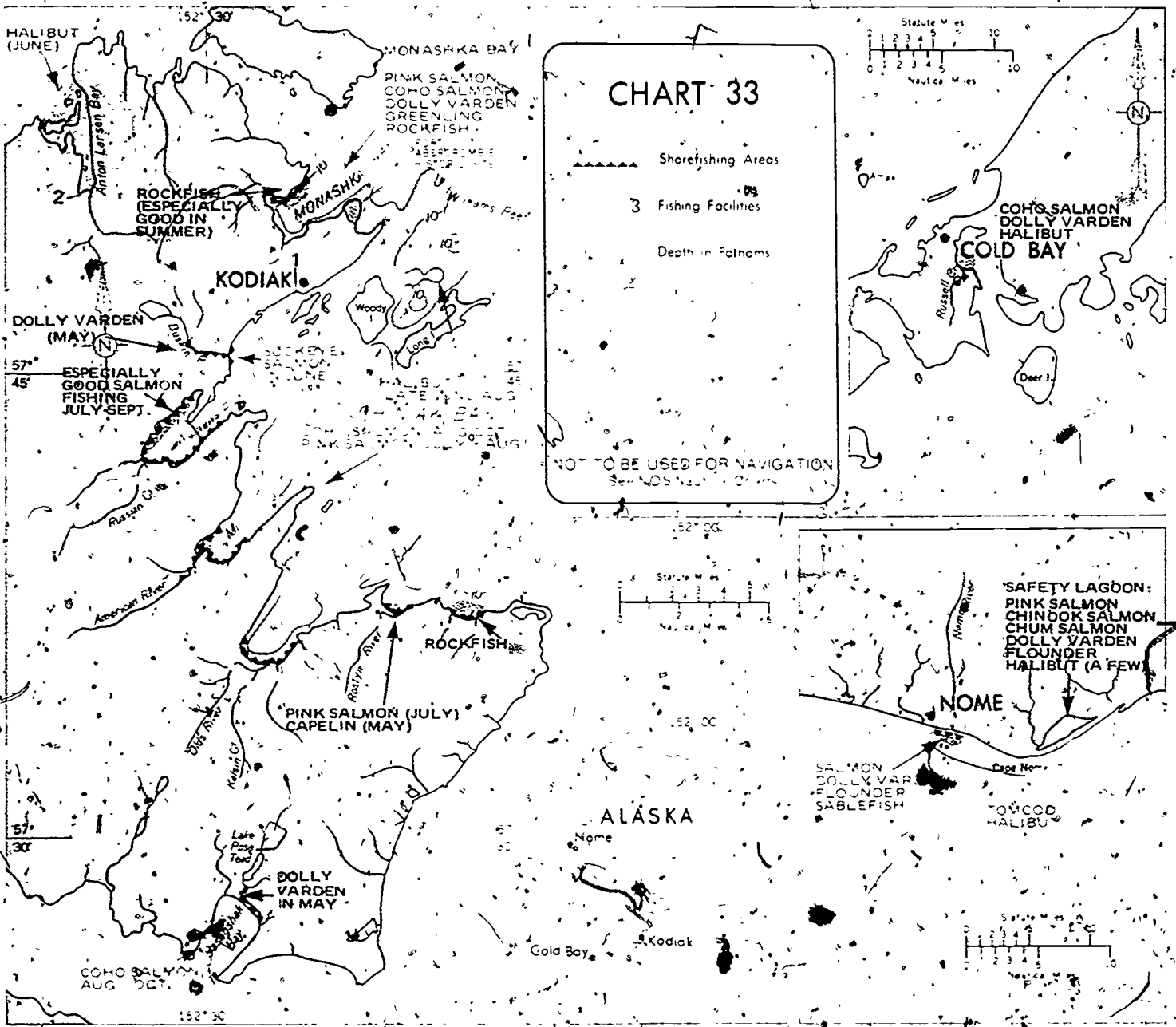
Kodiak Island (Chart 33), site of the first Russian settlement in Alaska, offers excellent saltwater fishing for salmon, halibut, sea-run trout, Dolly Varden, and rockfishes. The northern part of the island is forested, the southern portion is relatively treeless with grassy slopes typical of the volcanic and barren terrain of the Alaska Peninsula country. Most marine game fishing on Kodiak takes place on the northeastern tip of the island close to the city of Kodiak, which has launching facilities, tackle stores, breakwater fishing, and some dock fishing. Charter planes are available for those who want to fish in the more remote areas such as Afognak Island to the north.

From late May to August, shore anglers catch Dolly Varden in and around the mouths of the Buskin and Pasagshak rivers. In June, sockeye are available around the mouths of these

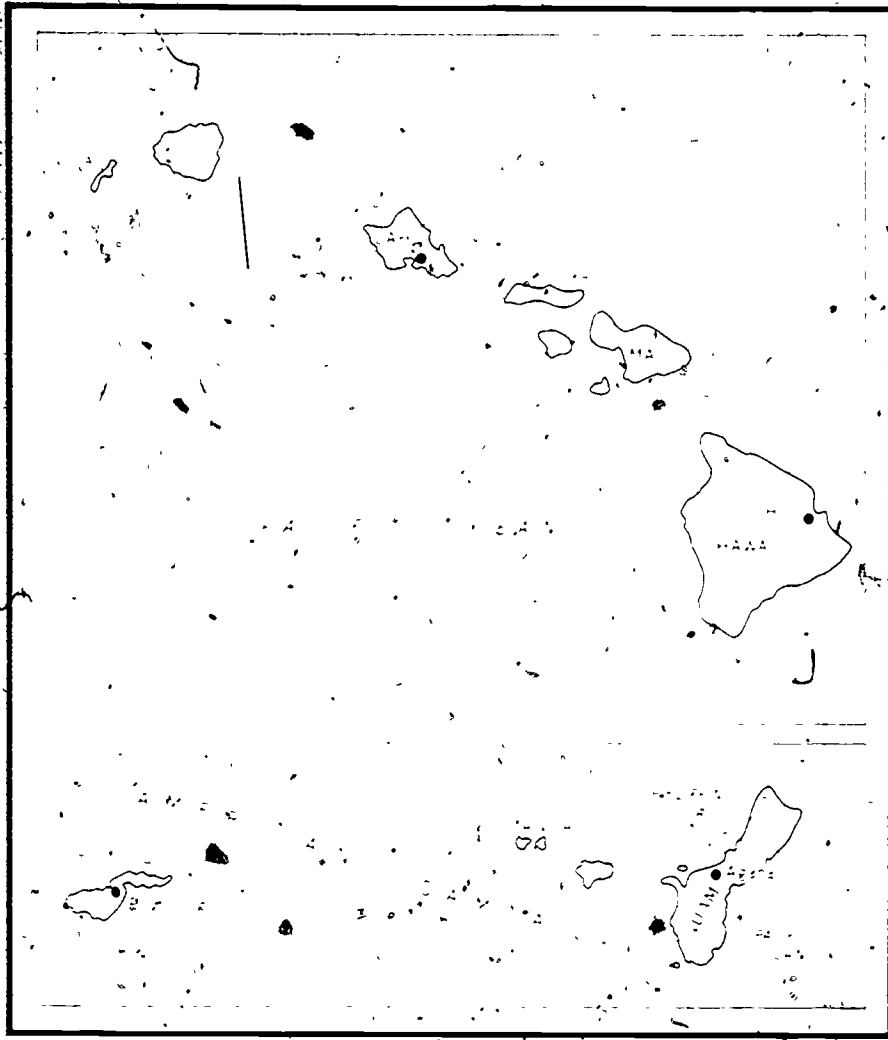
two rivers and halibut are taken from Chiniak Bay and Anton Larson Bay. Rockfish (rock bass) fishing is especially productive along the north shore of Monashka Bay during summer. July brings excellent fishing for pinks in Chiniak Bay, and from August to October coho are abundant in Chiniak, Pasagshak, and Monashka bays.

There is little sport fishing in marine waters west of Kodiak. Most recreational fishing is in freshwater streams and lakes. On the Alaska Peninsula there is some fishing for salmon, trout, and halibut at Cold Bay—a windy, treeless outpost and hub of air operations for the Aleutians Government and airline employees and their families. Most of the population at Cold Bay, farther west on the Aleutian Chain, military personnel fish for salmon, Dolly Varden, and halibut at Adak Naval Base. Northward on the Bering Sea there is a tomcod and halibut fishery at Nome, but this is mostly subsistence fishing. There is some saltwater angling from shore around the mouth of the Nome River and from boats in Safety Lagoon.









## PACIFIC ISLANDS

The following pages describe marine game fishing around the tropical islands of Hawaii, American Samoa, and Guam. The Hawaiian Islands rise out of the central Pacific Ocean near the margin of the tropics, while American Samoa lies below the equator approximately 2,600 miles south of Honolulu. Guam, the largest and westernmost territory of the United States, is located in the western Pacific Ocean less than 1,700 miles south of Tokyo, Japan. Although widely separated geographically, these islands all fall within the boundaries of a large region characterized by a distinct marine fauna—a region that extends from East Africa across the Indian Ocean into the central Pacific Ocean. Thus many similar or identical species occur in Hawaii, American Samoa, and Guam.

All of these islands are volcanic in origin with the sea bottom plunging fairly rapidly away from shore, and in many locations excellent deep-sea fishing opportunities are available within a relatively short distance from port. Some of the billfish and tuna grounds have produced record-sized fish and earned a worldwide reputation in big-game fishing

circles. But although the glamour and excitement of deep-sea fishing draws many to the offshore grounds, much of the fishing conducted about the islands is for the great variety of smaller tropical fishes found over inshore reefs and along rocky and sandy shores. The most sought-after fishes are not necessarily the largest or the ones with the best fighting ability—many islanders judge the value of a fish by its taste and by the traditional values attached to catching it and preparing it for the table.

Visitors should always first check locally about the area they plan to fish unless accompanied by a professional skipper or guide. If you intend to fish from shore, ask about surf conditions, accessibility, and restricted areas. Double check the edibility of your catch, particularly in American Samoa and Guam, where a few species are reported to be poisonous. Those known or suspected to be poisonous are discussed in the accompanying text and in the section on Marine Game Fishes of the Pacific Islands.

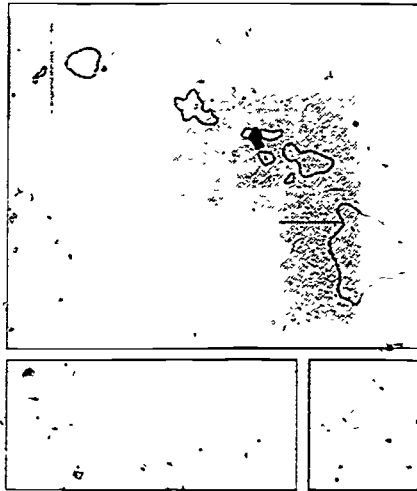
## HAWAIIAN ISLANDS

The beautiful islands of our 50th State, Hawaii, are situated in the north Central Pacific Ocean over 2,000 miles southwest of mainland North America. The Hawaiian archipelago comprises eight major islands and a number of rocky islets and small coral islands. The larger islands are actually the high peaks of an undersea chain of volcanic mountains and rise steeply and majestically out of the deep clear-blue waters of the Pacific. Geologically, the islands were formed west to east, the youngest island being the island of Hawaii, which still has active volcanoes. The oldest are the tiny coral sand islands at the westernmost tip of the chain.

The climate is largely influenced by the northeast trade winds that travel over the cool, westward flowing North Equatorial Current, and then are affected by the high elevations and contours of the islands. As a result, the islands have a relatively cool, wet windward side and a warm, dry leeward side, and there is wide variation in temperature, wind, and rainfall according to locality. In general, temperatures range from 56° to 90°F, are lower from November through April, and mild to warm the rest of the year. Warmest months are July, August, and September when temperatures may reach 80° to 90°F. Occasionally a southerly or "Kona" wind brings mugginess to the islands and rain to the leeward coasts.

The population is unevenly distributed; 82% of the people live on Oahu, and three-quarters of these in the city of Honolulu. Hawaii, the largest island with six and a half times the land area of Oahu, has only 8% of the population.

The islands of Hawaii offer a variety of excellent year-round game—deep-sea, inshore, and me fishing.



### 34 Hawaii Big Game Fishing

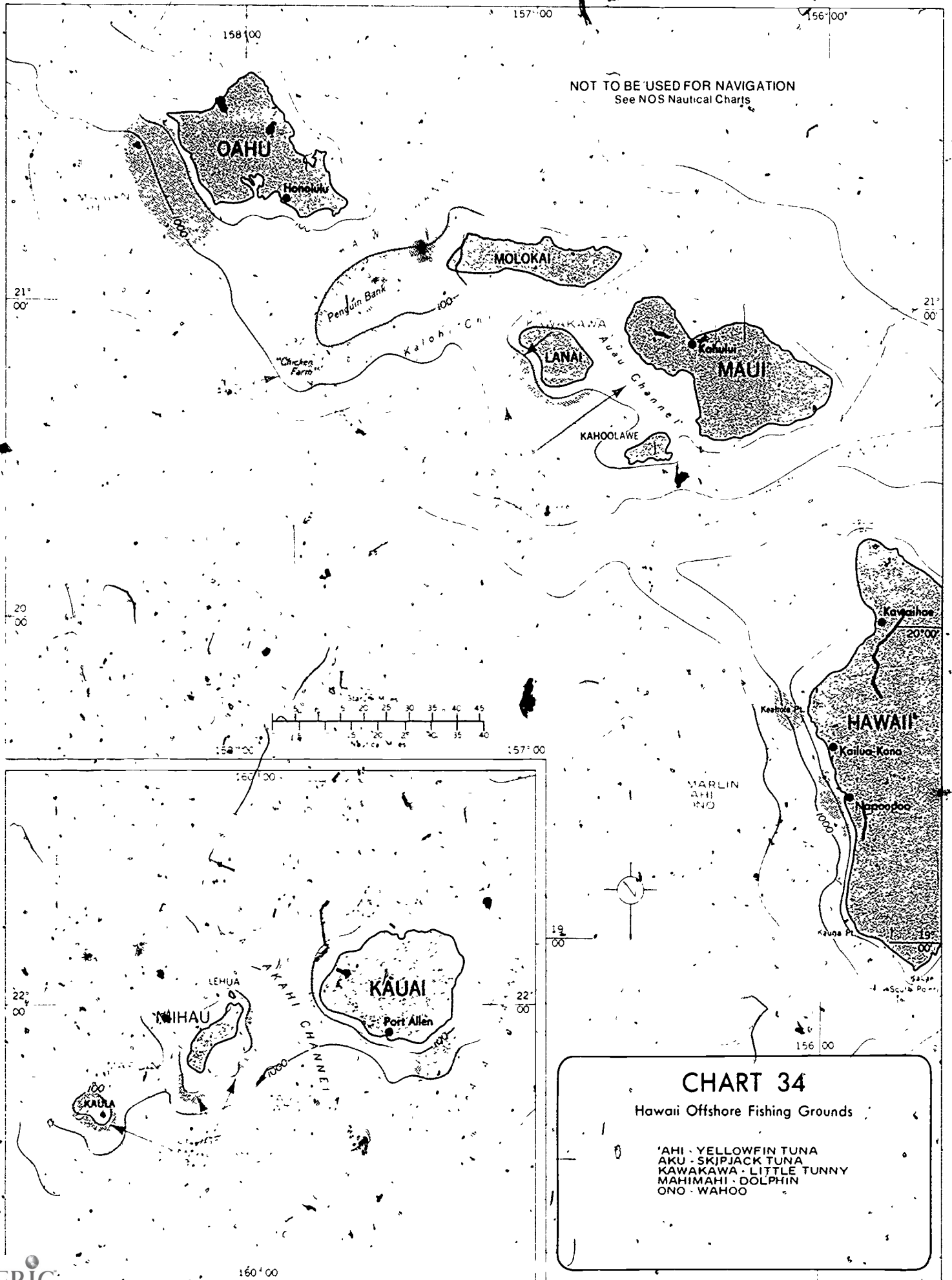
Hawaii's blue marlin and tuna grounds are world famous, and the professional skippers and crews that fish these waters are among the most experienced blue-water anglers in the world. Charter boats provide full equipment and operate year-round on a nonscheduled basis. Advance reservations should be made with individual boat operators or with charter services. International Game Fish Association's scales and weighmasters are available on all the main islands.

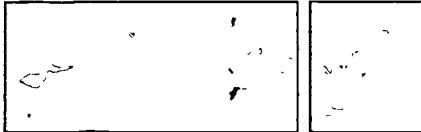
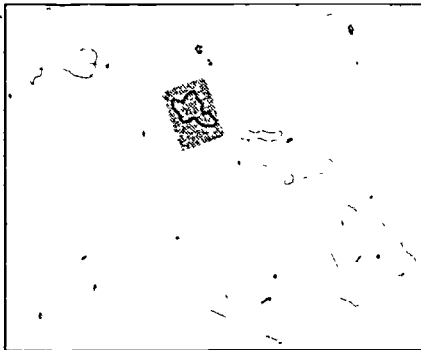
The major trolling grounds for Hawaii's sport fishing fleet are shown on Chart 34. Most fishing is done off the calmer leeward coasts of the islands. The windward coastal waters and the channel areas between the islands are just as productive for big

game fish, but the seas in these blustery areas are often rough and tend to discourage most anglers. Fishes that are taken by trolling include blue, black, and striped marlins (all called "a'u" by the islanders), ahi (yellowfin tuna), aku (skipjack tuna), mahimahi (dolphin), ono (wahoo), kawakawa (little tunny), and kama'u (rainbow runner or Hawaiian salmon). Most trolling occurs in water 1,000 fathoms or less; although off the Kona coast of Hawaii, boats may fish over water up to 2,000 fathoms or more deep in search of marlin and tuna.

There are two basic types of fishing strategies—area fishing and ledge fishing. Anglers who "fish the area" work over a known productive fishing ground such as Penguin Bank or the "Chicken Farm," watching for flocks of seabirds which feed on the baitfishes that marlin and large tuna chase to the surface. Ledge fishing involves trolling along submarine shelf areas where marlin, tuna, and other smaller fish are known to concentrate and feed. Aside from being excellent marlin and tuna areas, these precipitous ledges also produce impressive numbers of ono and kahala (amberjack), as well as the large deepwater snappers which are caught handlining on the bottom.







## 35 Oahu

Oahu (Chart 35) is the political and commercial center of the Island State, where the bustling capital city of Honolulu is located. It is here that most of Hawaii's people live and work.

The island is formed by two rugged parallel volcanic mountain ranges separated by a wide valley carpeted with sugarcane and pineapple. Many shore recreation spots and scenic views are within easy access along highways that circle and cross the island.

### OFFSHORE FISHING

Honolulu's Kewalo Basin, only a 5-minute drive from the Waikiki hotel district, has fine fleets of deep-sea cruisers. Charter boats fish close-in and offshore for many different types of game fish—marlin, ahi, mahimahi, kakawaka, ono, and sometimes the deepwater snappers—depending on what is running. Marlin have been caught within a mile of the harbor. Honolulu boats often fish from Penguin Bank to the east of the island or work from the western or leeward shore along Barbers Point to Kaena Point off the Waianae coast. Penguin Bank is noted for large schools of small tuna and mahimahi as well as marlin and ono. The Waianae coast offers the comfort of fishing in the calm lee of the island and a promise of exceptionally large marlin and yellowfin tuna (ahi). Charter boats out of Pokai Bay Boat Harbor also fish this area. On the windward coast, charters are available at Heeia Boat Harbor in Kaneohe Bay, and when weather permits, there is good marlin fishing along the 100-fathom drop off between Makapuu Point and Mokapu Point.

### NEARSHORE AND SHORELINE FISHING

Fishing from shore is probably the popular way to fish throughout

the Pacific Islands. Getting to shore is relatively easy in most places, and the cost of this type of recreation is nominal. A variety of methods are used—pole and line, netting, spearing, and trapping. Only a few places in Hawaii rent fishing tackle, but all of the islands have sporting goods stores where inexpensive gear can be purchased.

Heavy bait-casting gear is used mainly for ulua, an island term for large-sized jacks. These fish are highly prized by shore anglers and some are reported to reach 5 feet long. Ulua are found around rocky headlands and points, usually in turbulent water. Some of the best fishing spots for ulua on Oahu are Koko Head, Bamboo Ridge (north of Hanauma Bay and to the south of the Blow Hole), Diamond Head, Makapuu Point, and Kaena Point. This type of fishing can be dangerous for the beginner because of the rugged nature of the terrain in most ulua fishing areas. Access to some of the better fishing spots is sometimes difficult, and the surf can be treacherous—reports of anglers being swept from the rocks by waves are not uncommon.

Young jacks, called "papio," are favorite light tackle quarry for pier and shoreline anglers. Papio are caught all around the island, being most abundant from August to November. Another member of the jack family, the akule, is also a popular light tackle fish. Most pole fishing is for young akule or "hahalalu" (often pronounced simply "halalu"), which are caught in bays and harbors, such as Pokai Bay and Haleiwa Harbor, and in Honolulu Harbor by pier fishing under lights. Hahalalu are caught mostly at night, as are a variety of other inshore fishes.

Some fishes that are active at night—wekes, aholehole, and ama'ama—are caught by "torch fishing." On calm dark nights when the tide is low, persons armed with spears or hand nets wade out over the reef carrying lights to locate marine animals. Years ago, torches were made from dried coconut leaves, but now gasoline lanterns and battery-powered lights are used. Lobsters and "squid" (octopus to mainlanders) are also taken torch fishing.

The "hukilau" is another traditional island fishing method. It involves a group of people. A large surround net is used to encircle the fish, usually in protected waters. Once the net is set in place everyone pulls on the two end ropes, forcing the fish into the net as it is drawn into shallow water. Usually all kinds of fishes are caught with the hukilau net, and custom dictates that anyone who wets his feet during netting be given a portion of the catch.

Some of the popular shore fishing

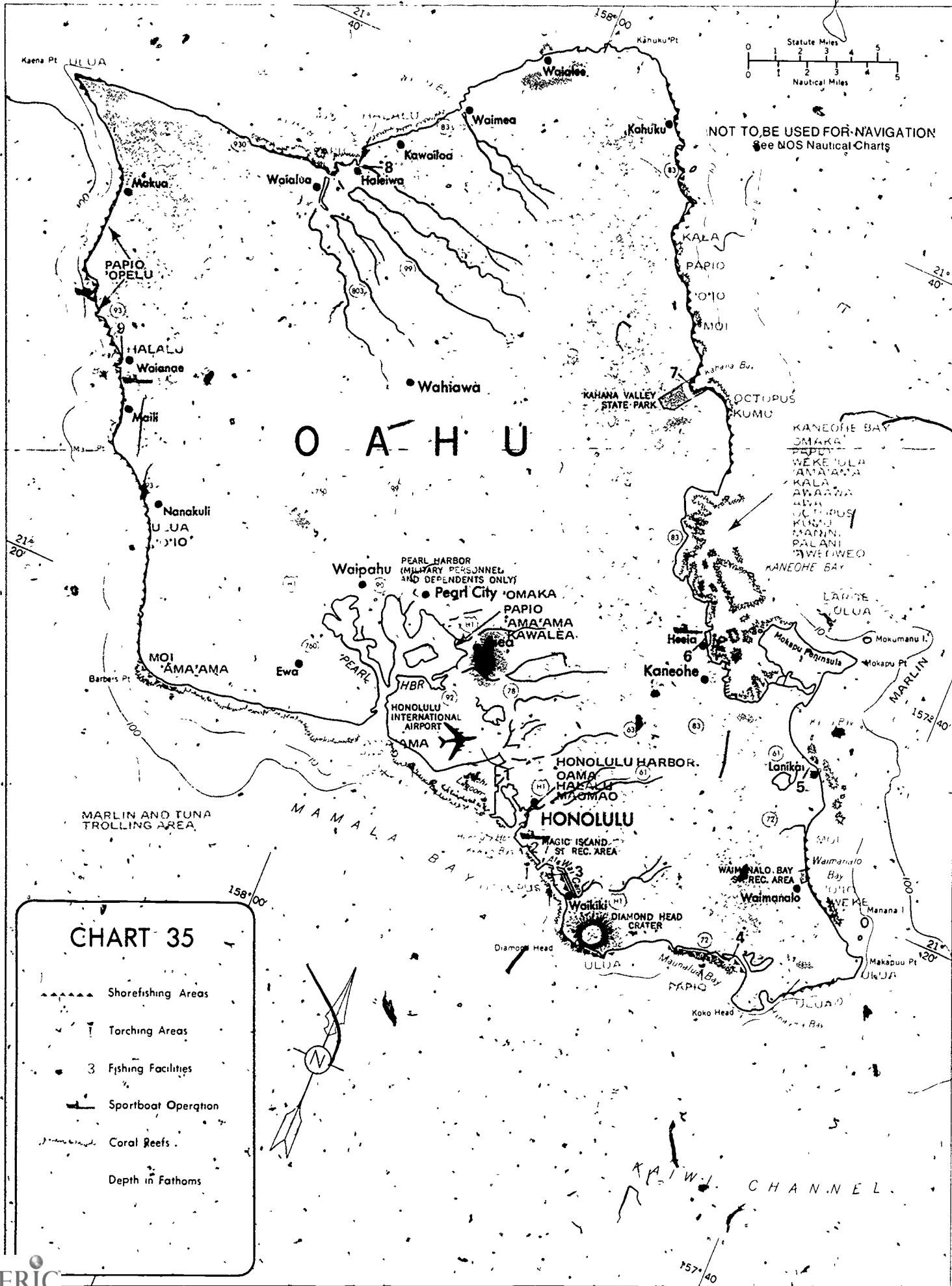
FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

1	● ● ●	Keeki Boat Basin
2	● ● ● ●	Kewalo Basin
3	● ●	Ala Wai Boat Harbor
4	●	Maunaloa B. Beach Pk.
5	●	Kailua Beach Park
6	● ● ●	Heeia-Kea Boat Harbor
7	● ●	Kahana Bay
8	● ●	Haleiwa
9	● ● ●	Pokai Bay Boat Harbor

and torching areas are shown on the map. In Honolulu Harbor there is pier fishing for 'oama, halalu, and maomao. The shallow reef around Honolulu Airport is a favorite location for netting ama'ama; spinning for papio and 'o'io; and, on calm nights, torching for weke. Parts of Waikiki Beach are good for torch fishing, especially for "squid" (octopus). There is also fishing from shore for aholehole, papio, ama'ama, and awa along the Ala Wai Canal that cuts through the Waikiki Beach district. Along Waimanalo Beach, 'o'io and weke are caught from shore, and moi are taken near the mouths of creeks emptying into Waimanalo Bay.

Farther north, Kaneohe Bay has netting for surgeonfish (manini and kala), ama'ama, akule, awawawa, and awa. Kaneohe Bay is also one of the better areas for octopus or "squid," and underwater spearing for kumu, manini, palani, and weke-ula. Omaka are abundant seasonally, and aweoweo on occasions enter the bay in great numbers. All along the north-eastern coast there is shore casting over reef-and-sand bottom for papio and weke; over sand bottom for moi and 'o'io; and cast netting and gill netting inside of the reef for surgeonfish, ama'ama, and akule.

In Haleiwa Bay, hahalalu school in great numbers in late summer, and many are taken by pole fishing from shore. Hahalalu and opelu are taken in the surf along the coast north of Waianae; 'o'io and ulua are caught off the shores around Nanakuli; moi and



'ama'ama are taken by netting and shore casting around Barbers Point. Fishing in Pearl Harbor is restricted by the military, and it is fished by service personnel and their dependents. The harbor is good for cast netting 'ama'ama; pole fishing for papio, 'omaka, nehu, and palani; and spin-fishing with lures for kawalea.

There is a considerable amount of small-boat fishing in reef-protected areas and in bays and harbors around the island. All facility locations indicated on the map have launching ramps, except Kewalo Basin. 'Omaka, 'aweoweo, menpachi, papio, and weke-ula are caught from boats in Kaneohe Bay, and hahalalu sometimes are taken by skiff anglers in Haleiwa Bay. Large ulua are taken in the area north of Mokapu Peninsula, and boats bottom-fish for 'omaka in Pearl Harbor.



The island of Hawaii (Chart 36), often referred to as the "Big Island," contains two-thirds the land area of the entire island chain. It consists of five volcanic mountains about 20 miles apart and linked together by saddles, 3,000 to 7,000 feet high, formed by overlapping lava flows. Along the northeast coast, the island takes the full brunt of the northeast trades and is exposed to heavy rains. The rest of the island is rather dry and arid owing to the spongelike porosity of the rocks and lack of rain on the leeward side. All around the island, water depth plunges dramatically and rapidly away from shore.

OFFSHORE AND NEARSHORE FISHING

Most offshore game fishing occurs on the calmer leeward or Kona coast in spring, summer, and fall. In winter, especially during January,

there is little fishing activity because of rough seas, but fishing usually picks up again in February. Blue marlin can be caught all year, but are most abundant from June through October. Striped marlin appear to be more abundant during times when blue marlin are least abundant (during winter and early spring), and are not caught by sports anglers in as many numbers as the blues. Best time for 'ahi is November through April. Aku are taken all year, but best catches are made in the summer. Ono are most abundant from April through August.

The Kona coast is famed for its smooth, clear water and ideal fishing conditions. It is also famous for the Hawaiian International Billfish Tournament, which is staged every summer at Kailua-Kona. Anglers from all over the world come to fish the waters of the Kona Coast, where several marlin over 1,000 pounds have been landed in recent years. The most popular grounds fished by the charter fleet are off Keahole Point—less than an hour's run from Kailua-Kona. Boats also fish along the entire leeward coast as far south as Kauna Point in search of marlin and tuna.

Farther inshore, 'ahi and ono are taken in good numbers by trolling over the steep 100-fathom ledge. This drop-off area also is good for handlining onaga and kahala. From about 40 to 100 fathoms there is handlining and netting for akule, 'opelu, 'opakapaka, and some of the goatfishes or wekes—weke-ula and moana. Nearshore out to about 50 fathoms deep, menpachi, manini, and moano are taken. The Kawaihae (Kohala) coast on the northwest side of the island is especially good for ono and 'ahi as well as other smaller game fishes. However, waters tend to get a little rough in the afternoon, when the wind usually picks up in this area of the coast. Boats based at Kawaihae often make the run down to "the grounds" off Keahole Point for marlin and tuna. When weather permits, overnight trips are made from the Kona area down to South Point for 'ahi, ono, and 'opakapaka.

The windward coast has limited offshore fishing by private boats based out of Hilo for marlin, 'ahi, ono, mahimahi, and kawalea. These grounds are fished only by experienced anglers familiar with the area—the extremely heavy swells and rough seas are not for the novice angler and boat handler. Akule, 'opelu, and ta'ape are taken farther inshore, and within the protection of Hilo Bay fishing is excellent for mo'i and other small game fishes.

SHORE FISHING

Although access is difficult, if not impossible, along much of Hawaii's

FACILITY NUMBER  
SPORT BOAT OPERATION  
PIER FISHING  
SKIFF RENTALS  
LAUNCHING  
JETTY FISHING  
LOCATION

- 1 ● ● Mahukona
- 2 ● ● ● Kawaihae
- 3 ● Puako
- 4 ● ● ● Honokohau Harbor
- 5 ● ● ● Kailua-Kona
- 6 ● ● ● Keahou B. Anchorage
- 7 ● Honaunau Bay
- 8 ● ● ● Miloli
- 9 ● Kaulana Bay
- 10 ● Pohoiki
- 11 ● ● ● Hilo
- 12 ● Laupahoehoe
- 13 ● Kukuhaele

\*Moves to Kailua occasionally  
\*\*High tide only

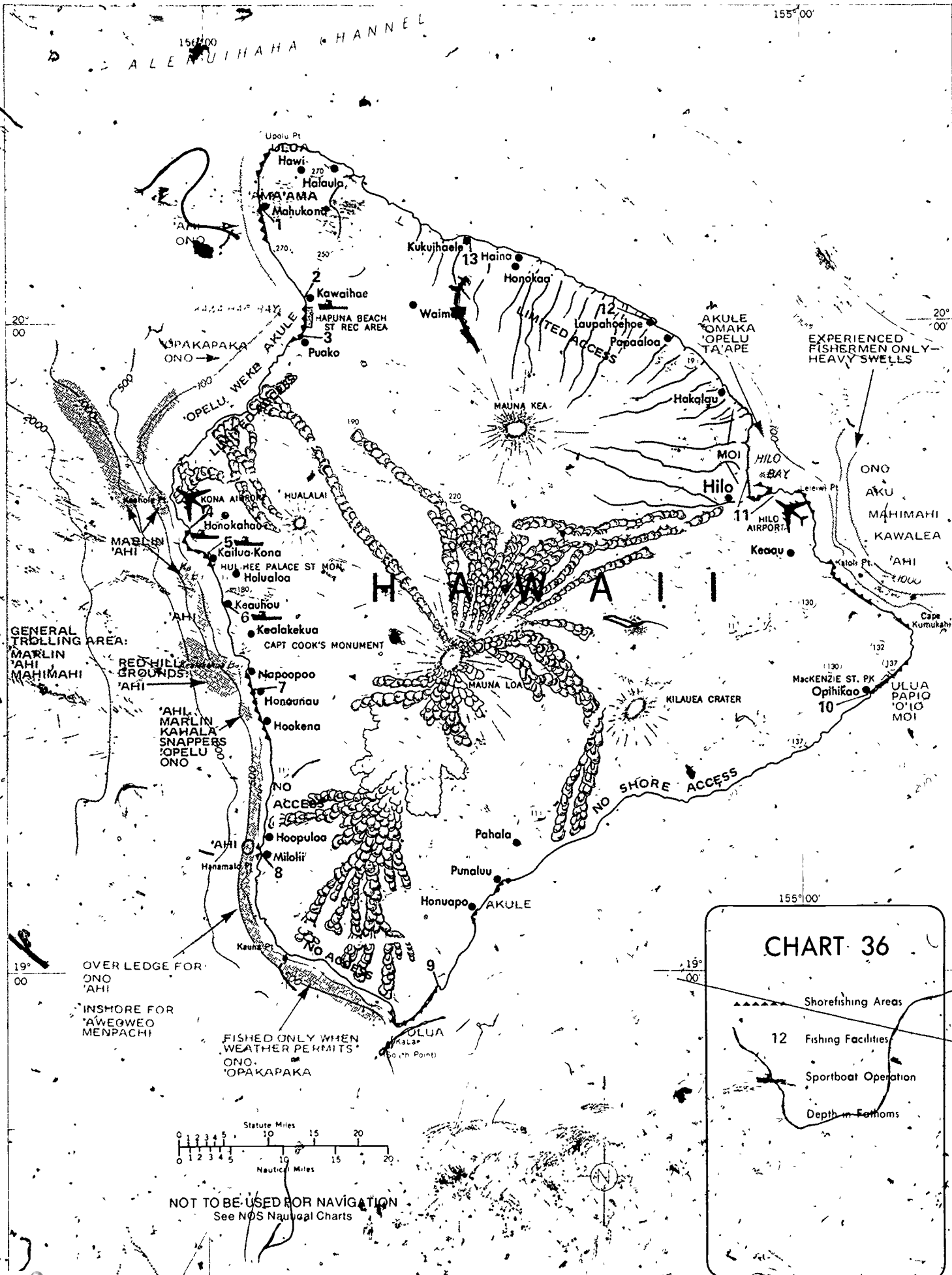
coastline, there are still many places where one can fish from shore. An assortment of fishes are taken; among them the most sought after appear to be large ulua and their younger offspring "papio"; the convict tang or manini; and young akule or hahalalu.

Hawaii's rugged coastline is particularly suited for ulua fishing. One of the best areas for ulua is at South Point, where black ulua are most abundant in the winter, and white ulua are caught year-round, dominating the catch in summer. Other good areas are Upolu Point, Kealakekua Point just north of Kealakekua Bay and the area south of the Bay, and all along the windward coast south of Hilo.

The small but tasty manini is a very popular shore fish on the island of Hawaii. They are caught all around the island—mostly by cast netters.

Papio are abundant and are caught pole fishing along the coast and in bays and harbors. Hahalalu are also taken pole fishing in bays and harbors, particularly at Hilo, Kawaihae, Honokohau, Kailua, and Keahou.

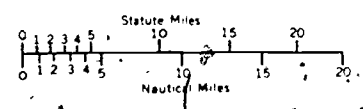
Some of the more popular shore-fishing areas are indicated on the map. Along the leeward coast, 'ama'ama



### CHART 36

Legend for Chart 36:

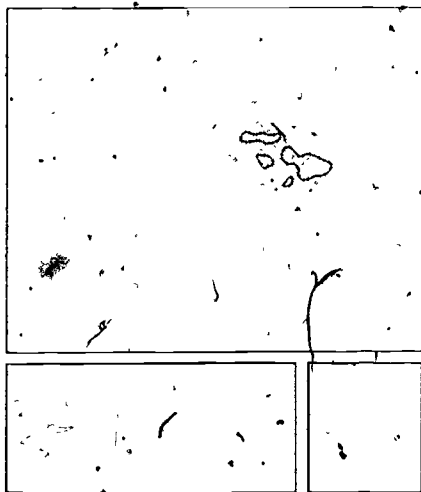
- Shorefishing Areas
- 12 Fishing Facilities
- Sportboat Operation
- Depth in Fathoms



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts

and manini are taken from shore between Kawaihae and Puako. There is limited access over the lava flows south of Puako, but Honokakau Harbor and the coast south to Kailua offer some shore fishing. South of Kailua-Kona there is intermittent access to shore along the highway—some areas are privately owned. From about Keauhou south to Kealahou Bay the fishing is reported to be excellent, but access is difficult—only by way of a dirt trail about one-half mile south of Keauhou Bay. In most of Kealahou Bay, fishing is restricted, but to the south there is shore fishing for ulua, menpachi, and papio (about a 5-minute walk to the beach). A limited amount of shore fishing occurs near Hoopuloa and Miloli.

The windward or Hilo coast of the island has shore fishing along Hilo Bay for moi, and from the Hilo breakwater for moi, manini, hahalalu, weke, and papio. The area south of Lelewi Point is good for moi, manini, aholehole, auouoa, weke, o'io, and ulua. From around Kaloli Point south to Cape Kumukahi, large ulua are taken from shore as well as menpachi and some of the fishes mentioned above. Farther south at Opihikao, islanders fish for menpachi, manini, moi, o'io, papio, and ulua. Punaluu Harbor and Honuapo Bay have a limited amount of fishing for akule.



### 37 Maui, Molokai, Lanai, Kahoolawe

This island group (Chart 37) was probably once a single island, but now is separated by channels 6 to 9 miles wide and up to 100 fathoms deep. The island of Maui is called "The Valley Isle" from the low-lying valley or isthmus that links the two volcanic mountains that form east and west sides. It is the largest island of the

group and the second largest island in the Hawaiian chain. The windward or eastern side is a succession of gorges rich in lush vegetation, cascading waterfalls, and black sand beaches. The leeward or western side of the island is characterized by golden sand beaches, secluded coves, and very clear waters.

The island of Molokai also is formed by two volcanic mountains. Its windward side is very scenic with precipitous cliffs, rising sheerly 500 to 4,000 feet from the ocean, and indented by magnificent valleys. The leeward side is a patchwork of ancient fish ponds fringed with coral reef.

The islands of Lanai and Kahoolawe are both single mountains. Lanai, owned by the Dole Pineapple Company, is primarily a pineapple plantation. Kahoolawe is uninhabited and sometimes used as a target area by the U.S. Armed Forces.

#### OFFSHORE FISHING

Sport fishing boats are available for charter on Maui at the old whaling port of Lahaina, close to the Kaanapali Beach resort area. Most deep-sea fishing takes place in the triangle formed by the islands of Maui, Lanai, and Kahoolawe. Fishing around Molokai and Lanai can be arranged through Maui charter services. At the time of this writing, charters were also available on an intermittent basis out of the port of Kaunakakai on Molokai, but this should be checked with the charter services.

Boats out of Lahaina troll for mahimahi, kawakawa, ono, and blue marlin, or bottomfish for deepwater snappers and weke-ula. Most fishing is done in the protected lee of the islands, but during calm weather some boats venture out in the channel areas to bottomfish over the productive submarine ledges of the Pailolo Channel, the 100-fathom ledge where Auau and Kealaikahiki channels meet, and around the island of Kahoolawe. It is best to check with the Hawaii Division of Fish and Game about fishing around Kahoolawe; sometimes it is restricted during Naval operations. The area to the west of Lanai and Molokai is fished by privately owned vessels and the charter fleet out of Oahu.

#### INSHORE AND SHORELINE FISHING

Beaches, rocky points, and reefs along the coastlines of these islands offer excellent opportunity for spin fishing, surf casting, net fishing, and spearing. On Maui, skiffs can be rented at Lahaina for nearshore fishing along the Lahaina coast from Lipoa Point to Maalaea Bay along Highway 30.

FACILITY NUMBER	SPORT BOAT OPERATION	PIER FISHING	SKIFF RENTALS	LAUNCHING	JETTY FISHING	LOCATION
1	●	●	●			Kaunakakai, Molokai
2	●					Kaunapali pier, Lanai
3		●				Manele Boat Hbr., Lanai
4	●	●	●	●	●	Lahaina, Maui
5	●	●	●			Maalaea Boat Hbr., Maui
6	●					Hana, Maui
7		●				Maliko Bay, Maui
8	●	●	●			Kahului, Maui

Perhaps Maui's most popular shore fish is the o'io (bonefish), which grows to a substantial size in Hawaiian waters. O'io and awa are taken from shore and skiffs along the Lahaina coast south to Maalaea and along the shore of Maalaea Bay and to the south. Large ulua also are taken along the Lahaina coast at the areas shown on the chart. On the eastern or windward side of Maui, awa and akule are caught in Kahului Bay during the fall; akule also are taken in Hana Bay. South of Hana Bay there is occasional shore fishing in winter for moi, aholehole, and manini. At the southwestern tip of the island at La Perouse Bay, akule, menpachi, and a wide assortment of reef fishes are taken from shore.

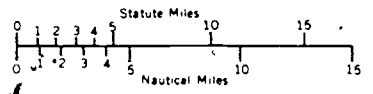
On Lanai, most shore fishing takes place on the northeastern side of the island, which is edged with luxurious coral reef. Kaunapali Harbor has pier fishing and fishing for awa just outside of the harbor entrance.

On the island of Molokai, shore and skiff fishing for ulua is exceptional, all along the leeward coast inshore of 20 fathoms. From Kaunakakai to Hakawa there is fishing from shore for o'io, awa, and ama'ama. The western shore offers ulua, moi, and o'io fishing.

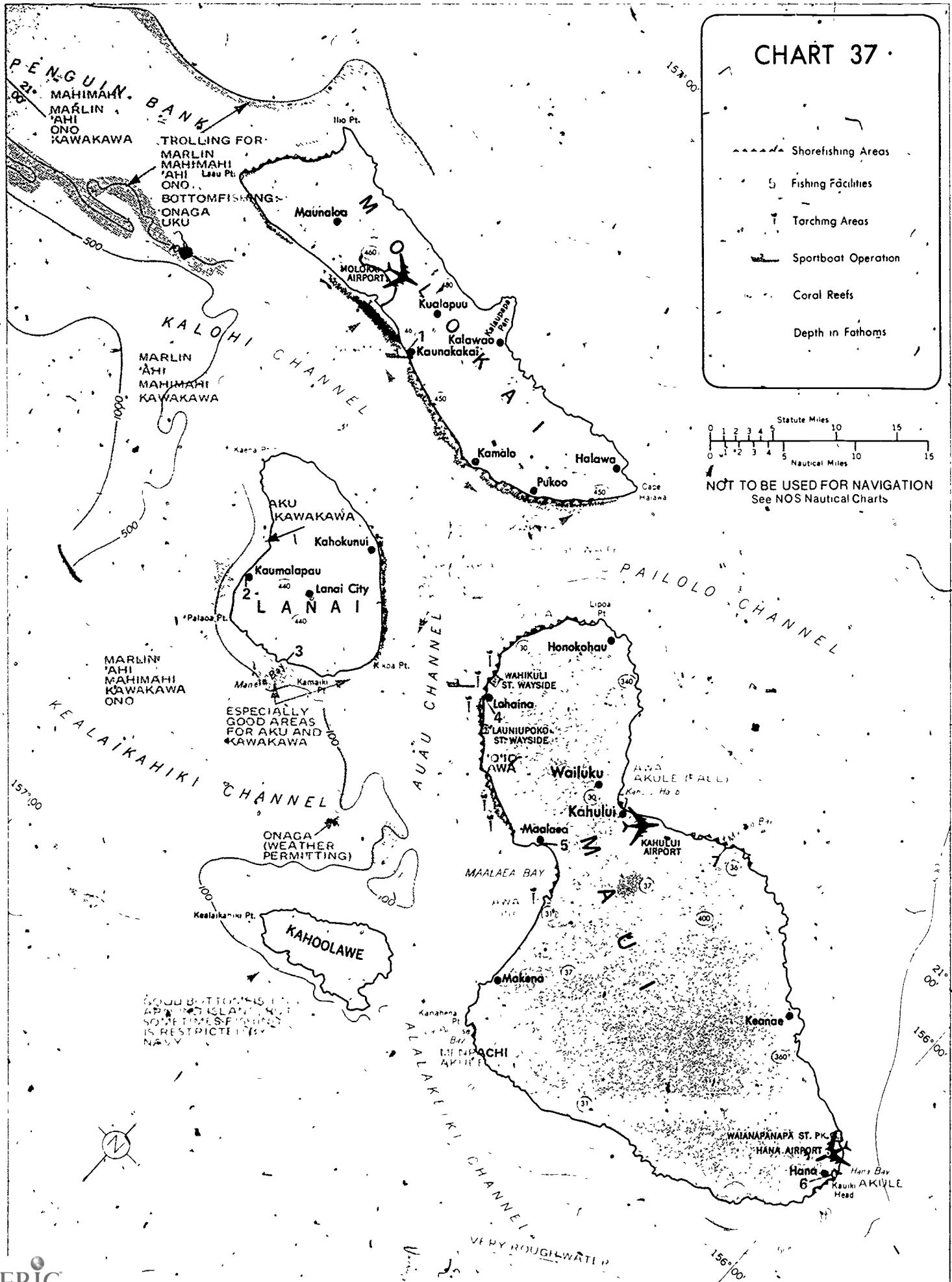


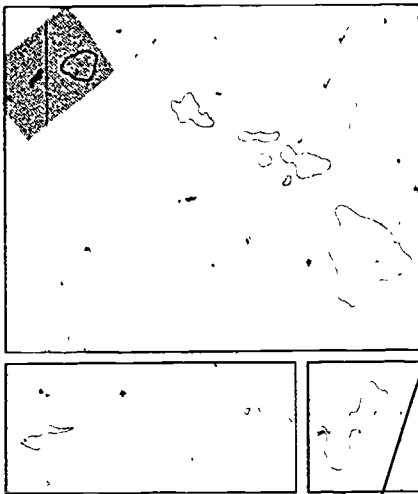
# CHART 37

- Shorefishing Areas
- Fishing Facilities
- Tanching Areas
- Sportboat Operation
- Coral Reefs
- Depth in Fathoms



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts





### 38 Kauai, Niihau, Kaula

The island of Kauai (Chart 38), about 63 miles west-northwest of Oahu, is the oldest, most weathered, and most verdant of the larger islands. This beautiful "Garden Isle" abounds in rivers and cascading waterfalls. The island consists mainly of a single mountain, Waialeale (5,080 feet), with marginal lowlands, except on the northwest. The chief scenic attractions are Waimea Canyon—the "Grand Canyon of the Pacific"; the spacious Hanalei Valley where rice and taro are cultivated on native-built terraces; and the Na Pali coast on the northwest with its 4,000-foot high precipices. Niihau, a small island southwest of Kauai, is privately owned and operated as a cattle ranch. Kaula Island is uninhabited, and access is sometimes restricted by the military.

#### OFFSHORE AND NEARSHORE FISHING

Kauai has some of the finest year-round deep-sea fishing in Hawaiian waters and boasts some world-record-size 'ahi, 'o'io, and kamanu. Charters are available out of Nawiliwili Harbor, Hanalei, and Port Allen. At Hanalei you have a choice of either deep-sea or inshore bonefishing excursions.

Ledge fishing (trolling and bottomfishing) is excellent around these islands. The submarine ledges are productive bottomfishing areas for opakapaka, uku, and kahala, which are taken in water about 100 fathoms deep. Ono and small 'ahi (usually under 100 pounds) are plentiful year-

round from about 25 to 100 fathoms. The peak of ono fishing is September, October, and November, when huge schools of akule, upon which ono feed, move into the area. It is also the peak time for small 'ahi, both ono and 'ahi are taken by trolling.

Anglers troll for marlin and large 'ahi (over 100 pounds) in deeper waters from about 100 to 1,000 fathoms. Tremendous schools of 'ahi move into Kauai waters in the late spring, with sizes known to reach a world record of 276 pounds. Marlin are fished year-round, but most fishing is in summer (May to September) when aku, the prime bait for marlin, move into the area in large schools. From September to January, aku are still present around the island, but are not as lightly schooled.

Mahimahi, although caught in Kauai waters, are not as abundant here as around the islands located farther east.

#### SHORE FISHING

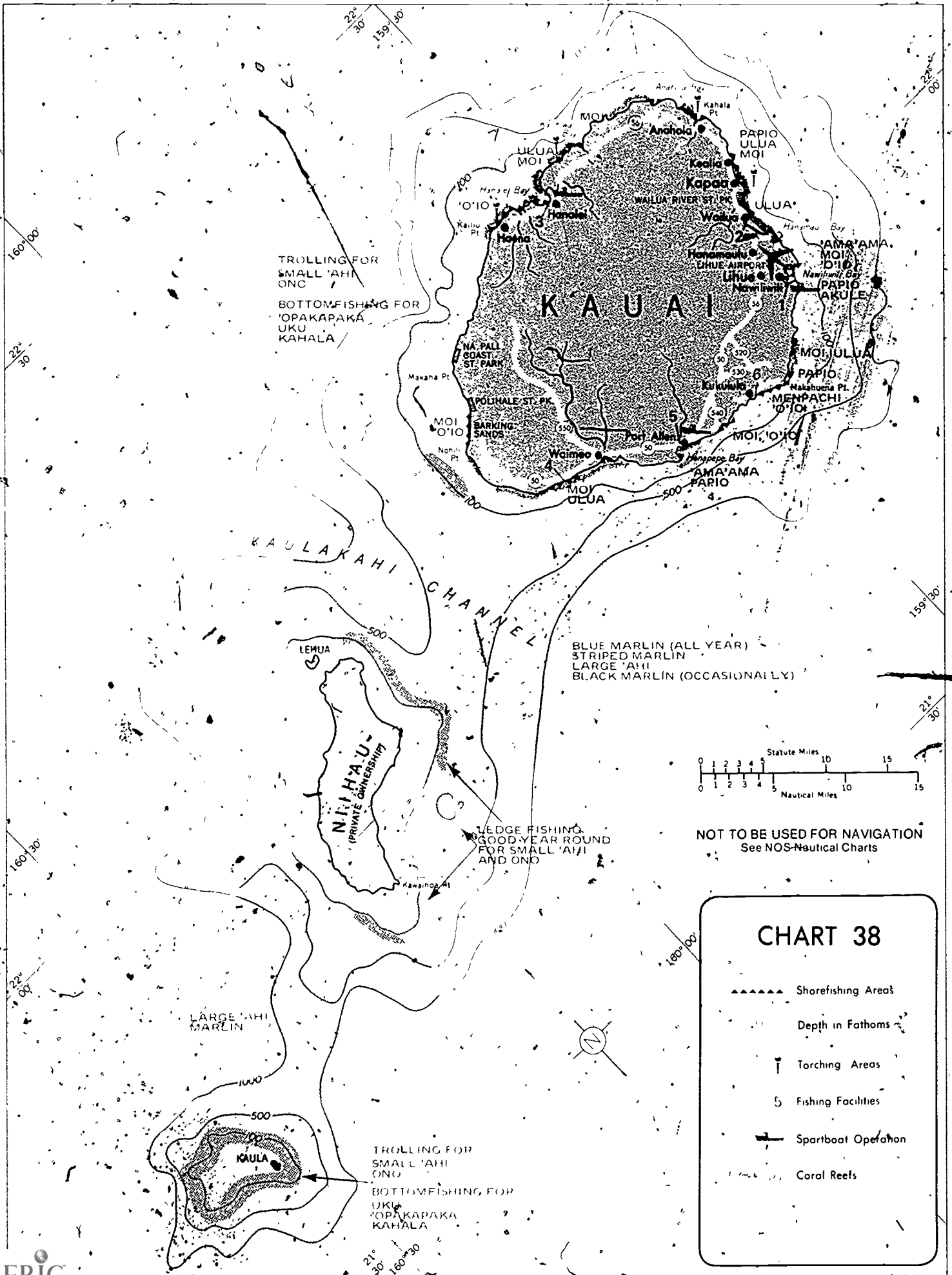
'O'io, papio, moi, and 'ama'ama are abundant all around the island of Kauai. 'Aweoweo, menpachi, hahalalu, and various kinds of goatfish are taken by shore anglers. Torch fishing and "squidding" are popular, especially in Kapaa Bay, Anahola Bay, and over the reef off Haena. At Haena during moonlit nights at low tide, the local people enjoy reef fishing with bamboo poles for 'upapalu or "moonlight fish." There is pier fishing for a variety of

fishes at Nawiliwili Harbor, Hanalei, Port Allen, and Kukuiula Harbor.

One of the finest bonefishing grounds in the world is located off Hanalei along the north shore, where the former world record was held for years (18 pounds 2 ounces). Hawaiian bonefish ('o'io) are taken surf fishing or bottomfishing with cut bait—water conditions are not conducive to fly fishing.

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 PIER FISHING  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- |   |         |                      |
|---|---------|----------------------|
| 1 | ● ● ● ● | Nawiliwili Harbor    |
| 2 | ● ●     | Waialua Marina       |
| 3 | ● ● ● ● | Hanalei              |
| 4 | ● ●     | Kukuiula Boat Harbor |
| 5 | ● ● ● ● | Port Allen           |
| 6 | ● ● ● ● | Kukuiula Boat Harbor |



TROLLING FOR  
SMALL 'AHI  
ONC

BOTTOM FISHING FOR  
'OPAKAPAKA  
UKU  
KAHALA

BLUE MARLIN (ALL YEAR)  
STRIPED MARLIN  
LARGE 'AHI  
BLACK MARLIN (OCCASIONALLY)

LEDGE FISHING  
GOOD YEAR ROUND  
FOR SMALL 'AHI  
AND ONO

LARGE 'AHI  
MARLIN

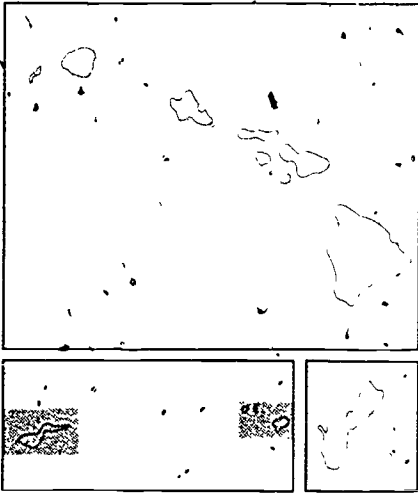
TROLLING FOR  
SMALL 'AHI  
ONC

BOTTOM FISHING FOR  
UKU  
'OPAKAPAKA  
KAHALA

NOT TO BE USED FOR NAVIGATION  
See NOS-Nautical Charts

### CHART 38

- ▲▲▲▲ Shorefishing Areas
- Depth in Fathoms
- ┆ Torching Areas
- 5 Fishing Facilities
- Sportboat Operation
- Coral Reefs



### 39 AMERICAN SAMOA

The tropical islands of American Samoa (Chart 39) are in the south Central Pacific Ocean, approximately 2,200 miles southwest of the Hawaiian Islands and 1,600 miles northeast of the northern tip of New Zealand. American Samoa is an Unincorporated Territory of the United States and comprises seven islands—Tutuila, Aunu'u, Ta'u, Olosega, Ofu, Swains, and Rose Atoll. Five of these islands are mountainous and volcanic in origin, and two (Rose Atoll and Swains Island) are tiny coral atolls each less than 2 miles in diameter. The combined land area of all the islands is a scant 76.2 square miles, or about one-sixteenth the land area of our smallest State, Rhode Island.

The five larger islands are surrounded intermittently with narrow stretches of coral reef, beyond which the water depth plunges fairly rapidly away from shore. Submerged bank areas may extend out 1/2 to 4 miles before dropping dramatically from 50 fathoms to depths greater than 500 fathoms. The islands are bathed by the warm waters of the South Equatorial Current system, with sea surface temperatures ranging from 75° to 86°F over the course of a year.

The climate of American Samoa is tropical, and air temperatures are fairly uniform, averaging 78° to 80°F at sea level. Rainfall is generally heavy, increases with altitude, and is greater on the south and east coasts. Trade winds blow from the southeast quarter about 80% of the time but are relatively light compared to those of Hawaii. Best weather is from November to April when these winds are generally lightest.

About 90% of the total population of 27,000 is located on Tutuila Island, the largest of the island group and the Pago Pago is located. The island is 18 miles long and 5 miles wide

with a mountain range along its length. It is nearly bisected by the deep waters of Pago Pago Harbor, one of the finest and most beautiful ports in the South Pacific.

A tourist industry is developing rapidly on Tutuila Island, and the increased tourism has brought a growing interest in the sport fishing potential of Samoa's productive grounds which now yield high commercial catches of billfish and tuna. Two licensed sport fishing boats are now available for charter out of Fagatogo on Pago Pago Bay. Fishing grounds are close in and offshore of the island.

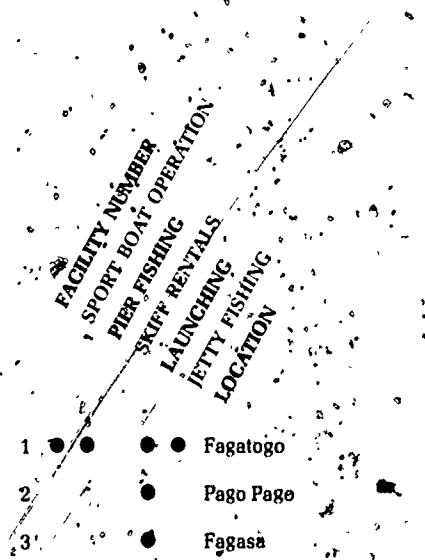
#### OFFSHORE FISHING

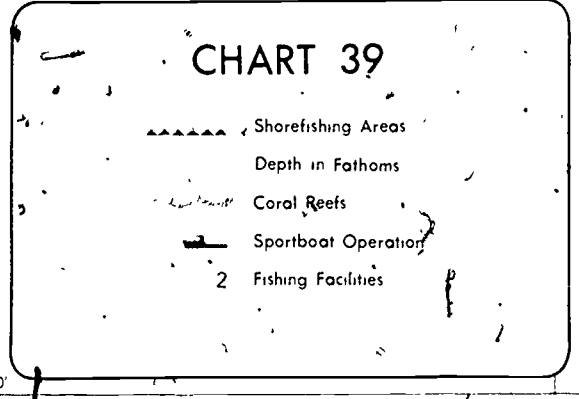
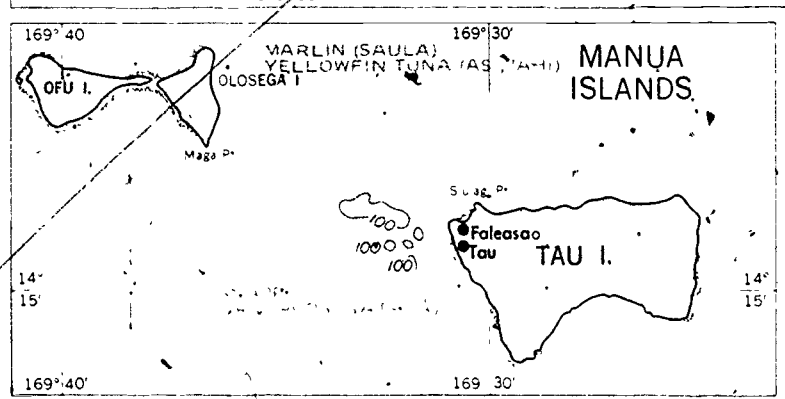
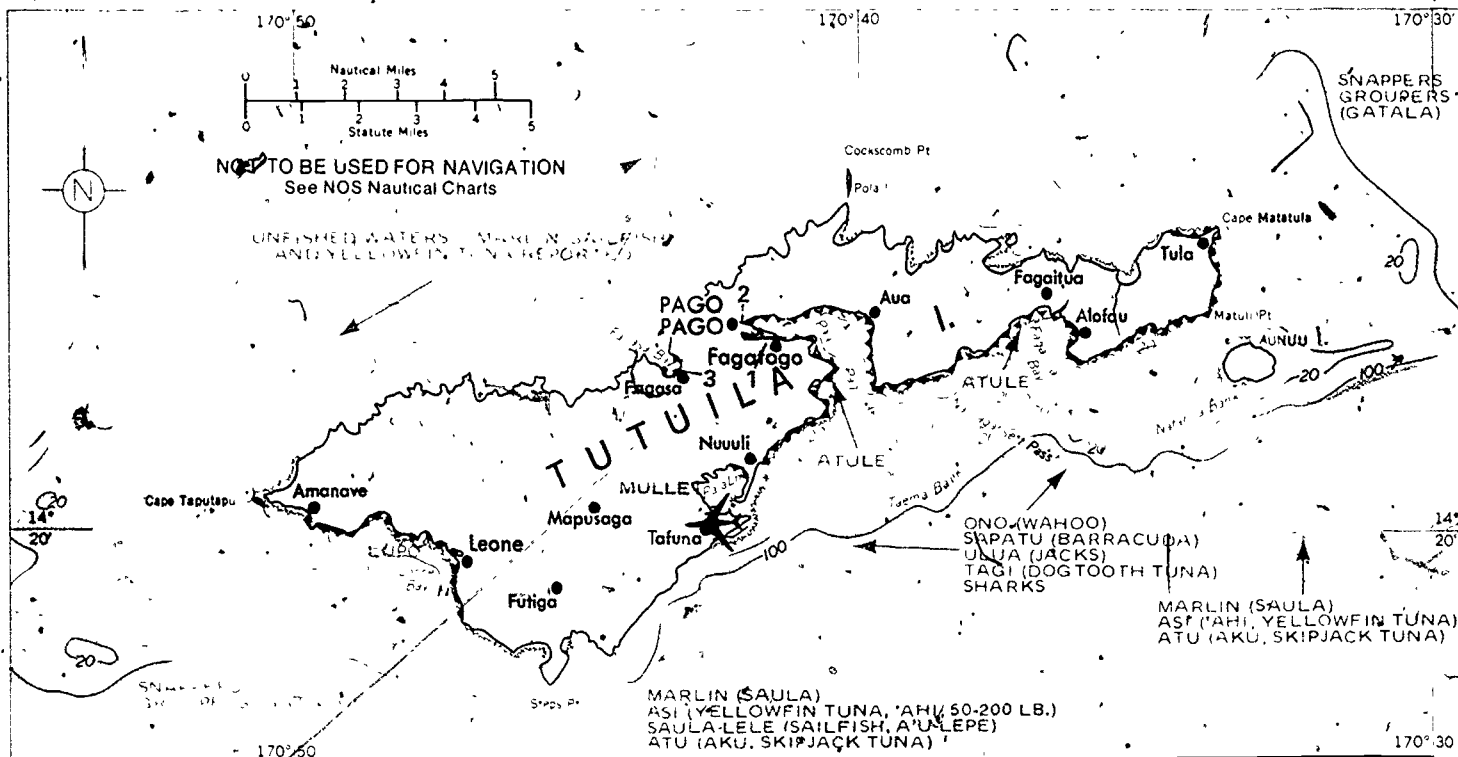
Large game fish are abundant throughout the year in Samoan waters, and many good fishing locations are within a relatively short run from port. Billfish grounds off Tutuila Island produce saula (blue marlin), saula-lele (sailfish), asi (yellowfin tuna), atu (skipjack tuna), rainbow runner, masimasi (dolphin), and ono (wahoo). Waters on the north side of the islands are virtually unfished, but show potential of being excellent big game fishing grounds as well. While they are caught year-round, the best time for large asi is March to July, and for atu, October to March.

Inshore of the billfish grounds along the 100-fathom drop off, there is handlining and trolling for ono, tagi (dogtooth tuna), sapatu (barracuda), and large jacks or ulua. Most tagi are caught handlining at dusk or at night. Sharks are also common along these ledge areas, particularly the gray reef shark.

Bottomfishing is excellent and usually takes place in waters 100 fathoms or less; the main catch consists of groupers and snappers. Visitors to the island should be warned that the flesh of some snappers may be

toxic, and it is wise to inquire locally about the edibility of certain species. Groupers, collectively called "gatala" by Samoans, are generally taken at 10 to 40 fathoms over reefs and ledge areas. The most common species are gatala, gatala moana, i'a manaia, and ata'ata, which is similar to California's giant sea bass and ranges up to 500 pounds but generally is from 100 to 400 pounds. Of the snappers, the most common varieties are the colorful bluelined snapper or savani, which is the most abundant; the green snapper or filoa (reported to be slightly toxic in Samoan waters), and the red snapper or mala'i. Another common snapper caught handlining, known locally, as mu, is definitely known to cause ciguatera poisoning and should not be eaten. Aso'ama (uku), a nontoxic snapper, is sometimes taken over bottomfishing areas along with some of the large jacks, atule (akule), sapatu, tagi, and sharks. Deepwater snappers such as opakapaka and palu (onaga) are more abundant farther offshore over ledges at 200 to 300 fathoms. These deeper areas, however, are





seldom fished because fishing for other game fishes is so good closer to Tutuila Harbor. The same is true for the bottomfishing areas around the Manua Island group, which are fished mainly by natives who launch canoes in the surf on the west end of Ta'u Island. Rose Atoll, a turtle and bird preserve, is also too far from port to be a feasible fishing ground at this time.

SHORE FISHING

The inshore reefs of Tutuila abound with over 600 varieties of colorful fishes, and few have gone untasted by the Samoans, who prefer to comb nearby reefs rather than venture to offshore fishing grounds. As a result, these reefs have been subjected to heavy fishing pressure over the years and, unfortunately, are showing signs of depletion.

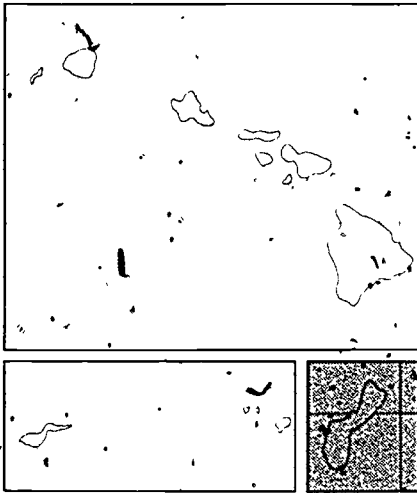
Most shore fishing is done by wading out over the reefs at high tide. A variety of sea creatures are captured in an almost equal variety of

ways—with traps, nets, spears, hook and line, or simply bare hands and a pail. The most common methods are bamboo pole fishing and cast netting. Young snappers and groupers are the main catch, but "lupo" (young jacks), "malau" and other, squirrelfishes, goatfishes, and even an occasional butterflyfish and surgeonfish are taken. The shore is accessible all along the southern side of the island and on the north shore at Fagasa where the road follows the shoreline. It is advisable to check with local chiefs or matai before fishing near their villages—just as you would ask a property owner permission before fishing on his land. Sparring is legal, but generally discouraged.

Atule and mullet are fished in lagoons and bays around the island. Atule are caught in good numbers by pole fishing from shore in Pago Pago Harbor, mainly from the docks and piers on the west side of the harbor. Unlike his Hawaiian counterpart, the Samoan atule is caught easily during the day as well as at night. Skiff

anglers also catch this tasty little fish handling. Mullet are taken in sandy bays and lagoons with cast nets, and Palu Lagoon is considered one of the best fishing areas for this silvery schooling fish.

A very unusual fishery exists in American Samoa, one which the population looks forward to with eager anticipation. It is the fishery for palolo. Each year at a predictable time, in either October or November, the tail ends of a species of reef-dwelling sea worm become detached and swim to the surface, in wriggling masses. The tail sections are full of eggs and sperm which are discharged into the water. On these nights, and usually only for a few hours, the reef comes alive with great swarms of palolo. The natives, armed with dip nets, pails, and other capturing devices, wade out over the reefs to scoop up large quantities of this unusual Samoan delicacy. Palolo are usually eaten raw, but for the less brave they can be cooked with chopped onions or scrambled with eggs.



## 40 GUAM

Guam (Chart 40), about 3,340 miles west of Honolulu and 1,500 miles east of Manila, is the largest and southernmost island in the Marianas island group. Administered by the U.S. Navy for over half a century, the territory was placed under the administrative jurisdiction of the Department of the Interior in 1950 by executive order of the President of the United States. That year, the Organic Act was passed by the U.S. Congress and became Guam's Constitution, giving Guamanians U.S. citizenship and establishing the present 21-seat legislature.

The island is important as a distribution center for Micronesia and as a major link between these islands and the rest of the world. Because of its strategic geographical location and beautiful tropical setting, Guam has several large military bases, a growing tourist industry, and many thriving new businesses.

The physical geography of the island contrasts sharply north to south. The northern part of the island is a low-lying limestone plateau covered by a thick growth of jungle vegetation. The south, rising to more than 1,000 feet above sea level, is characterized by high volcanic hills covered with sword grass. The island is about 23 miles long and varies from 4 to 8 miles wide.

The climate is tropical with air temperatures ranging from 70° to 90°F. Daytime temperatures are usually in the mid-80's. Average rainfall is about 90 inches, three-quarters of which falls during the rainy season from July to October. The driest month is April.

Guam's offshore waters abound with a variety of game fish; undoubtedly the most famous is the big blue marlin. On 21 August a world-record blue marlin was

caught off Ritidian Point near the northern tip of Guam. This huge fish weighed in at 1,153 pounds with a total length of 14 feet 8 inches. A fishing derby is held each year at the end of the Liberation Day celebration in July, and many sport anglers register for this annual event.

Most offshore fishing takes place on the leeward or western side of the island because of rough waters usually prevalent on the windward or eastern side. The trolling grounds produce blue marlin, black marlin, sailfish, yellowfin tuna, skipjack tuna, mahimahi, rainbow runner, tosun or wahoo, barracuda, and sharks. Marlin, wahoo, and tuna are caught occasionally throughout the year; the best time for mahimahi is during January and February; and yellowfin and skipjack tuna are usually most abundant February through August.

Bottomfishing is excellent over submarine ledge areas surrounding the island and over offshore banks. The catch consists mostly of snappers and groupers. Some of the more common snappers are the pink kali kali, pink paka, yellowtail, genda, lehi, eh, onaga or red, and tagafi. Groupers are collectively called "gadao" by Guamanians. Dogtooth tuna and jacks (called collectively tarakito) are also taken in some of the bottomfishing areas.

Many people on the island enjoy fishing from shore, and the most popular methods seem to be spin fishing and surround netting. The island is rimmed by many miles of beautiful coral reefs and the water over these reefs ranks among the clearest in the world, especially during the dry season. Anglers with spinning gear cast from the reef shelves for snappers, groupers, and jacks, and from the piers and in boat channels for atulai (akule or bigeye scad) and tataga (kala, unicornfish). Other fishes such as young snappers, wrasses, mullet, taraktiyos (young jacks), needlefish, and achuman (opelu or mackerel scad) are taken occasionally by hook-and-line anglers. The surround net captures an assortment of reef fishes including those mentioned above as well as some of the goatfishes and

parrotfishes. Cast net operators fling their circular nets over the water for fish that wander about the reefs in schools, such as manini (known locally as "kicho"), young mullet, goatfish, and sesjun (rabbitfish). There is also some spearing for octopus, parrotfish, and surgeonfish, as well as other reef fishes.

Some of the more popular shore-fishing areas are shown on the chart. Atulai are taken during most of the year (May to March) along the channel area that cuts through the reef at Agana and at the southern tip of the island near Merizo. There is shore fishing in Apra Harbor for papio, atulai, and occasionally achuman (opelu). Tataga are taken at Agana and sometimes at the north side of Cabras Island, as well as near the reef's outer edge on the southern shore of Ylig Bay. The latter area also is good for snappers—mafuti, kakaka, and bua. It is advisable to check locally about the waters you plan to fish, since currents over the reefs are sometimes dangerous.

Sport fishing boats are available for charter out of Port Merizo and Agana. Skiffs can be rented at Port Merizo, and there are boat launching facilities at the Apra Harbor seaplane ramp and at the Agana boat basin.

FACILITY NUMBER  
 SPORT BOAT OPERATION  
 SKIFF RENTALS  
 LAUNCHING  
 JETTY FISHING  
 LOCATION

- 1 ● Apra Hbr. seaplane ramp
- 2 ● ● Agana Boat Basin
- 3 ● ● Port Merizo

# CHART 40

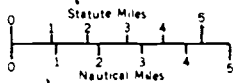
Shorefishing Areas

Depth in Fathoms

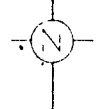
Fishing Facilities

Sportboat Operation

Coral Reefs



NOT TO BE USED FOR NAVIGATION  
See NOS Nautical Charts



MARLIN  
YELLOWFIN TUNA ('AHI)  
SKIPJACK TUNA (AKU)  
TOSUN (ONO, WAHOO)

SNAPPERS TAKEN OCCASIONALLY  
THROUGHOUT YEAR, WEATHER  
PERMITTING  
PINK KALIKALI (KALIKALI)  
PINK PAKA (OPAKAPAKA)  
YELLOWTAIL KALIKALI

GADAO (GROUPE)  
SNAPPERS  
ONAGA  
GINDAI

TOSUN (ONO, WAHOO)  
YELLOWFIN TUNA ('AHI)  
BARRACUDA  
MARLIN  
MAHIMAHI

SNAPPERS  
GINDAI  
YELLOWTAIL KALIKALI

SNAPPERS  
GINDAI  
YELLOWTAIL KALIKALI

TARAKITO (JACKS)  
TAKEN ALL YEAR,  
WEATHER PERMITTING

YEAR ROUND, WEATHER  
PERMITTING  
TARAKITO (JACKS)  
ACHUMAN ('OPE, U)  
TAGAFI (MU)  
GADAO (GROUPE)  
SNAPPERS  
LEHI  
GINDAI

AGANÁ 2  
TATAGA  
ATULAI (AKULE)

TATAGA

SNAPPERS  
LEHI  
YELLOWWEYE PAKA  
PINK PAKA (OPAKAPAKA)  
GINDAI  
YELLOWTAIL KALIKALI

SKIPJACK TUNA (AKU)  
TOSUN (ONO, WAHOO)  
YELLOWFIN TUNA ('AHI)  
MARLIN  
MAHIMAHI

BARRACUDA

SEE INSET FOR GALVEZ BANK AREA

GALVEZ  
BANK

## MARINE GAME FISHES

The following pages list some of the more common marine game fishes caught within the geographical areas covered in this Guide. Major species are illustrated. Fishes taken along the west coast of the continental United States are described first; those taken around the tropical Pacific islands of Hawaii, American Samoa, and Guam are covered on succeeding pages. The list is separated in this way to assist the reader in finding the fishes familiar to his general geographic area. To help avoid confusion with common fish names an index to common names referred to in this list is provided in the back of the guide. All-tackle records are those recognized by the International Game Fish Association as of 1974. Fish illustrations by Susan E. Smith.



# Marine Game Fishes of the United States West Coast

This list describes those marine and anadromous species commonly taken by anglers along and off the coasts of California, Oregon, Washington, and Alaska.

Off southern California most pelagic species taken by the marine angler are subtropical, and common only from Point Conception south to off Baja California, Mexico. Point Conception, 40 miles west of Santa Barbara, Calif., is generally agreed to be the major ecological and faunal dividing point for many pelagic species. However, Pacific bonito, Pacific mackerel, and bluefin tuna, which are common in the south, occur at times north of Point Conception, and conversely, northern species such as coho salmon sometimes range south of Point Conception. In the deeper cooler water over the continental shelf are also found many species that range north of the Point.

From Point Conception north to south central Alaska one encounters a fairly constant species composition

throughout this temperate environment. North of Point Conception, extending to at least Cape Blanco, Oreg., there exists a major coastal "upwelling" area which results in cool water nearshore much of the year. Another environmental change from temperate to subarctic occurs from about the Aleutian chain in Alaska north beyond the Bering Sea.

For the most part, this list uses common and scientific names as defined in the American Fisheries Society checklist [Bailey et al. 1970], except for the use of "surfperch" for all members of the family Embiotocidae. Some species descriptions will have more than one common name; however, the common name approved by the American Fisheries Society is capitalized. The authorized scientific name and the name of the individual credited with describing the species for the scientific record are given last.

For those anglers wishing to ensure correct identification of their west coast catch, we suggest the

following publications. Much of the information in this list was derived from identification lists prepared by the following authors:

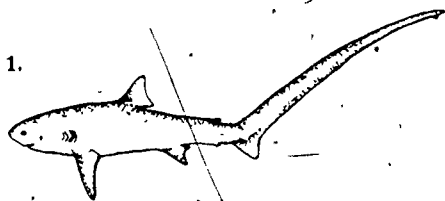
Hart, J. L.  
1973. Pacific fishes of Canada. Fish. Res. Board Can., Bull. 180, 740 p.

Miller, D. J., and R. N. Lea.  
1972. Guide to the coastal marine fishes of California. Calif. Dep. Fish Game, Fish Bull. 157, 235 p.

Phillips, J. B.  
1957. A review of the rockfishes of California (Family Scorpaenidae). Calif. Dep. Fish Game, Fish Bull. 104, 158 p.

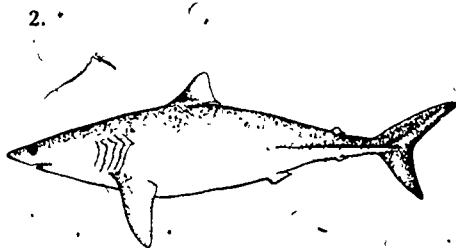
Tarp, F. H.  
1952. Revision of the Family Embiotocidae (the surfperches). Calif. Dep. Fish Game, Fish Bull. 88, 99 p.

## ALOPIIDAE: THRESHER SHARKS



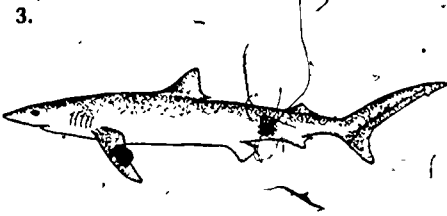
1. THRESHER SHARK, fox shark swiveltail; *Alopius vulpinus* (Bonnaterre). DISTRIBUTION: Temperate and tropical waters of the Pacific, Indian, and Atlantic oceans and the Mediterranean Sea. SIZE: Reported to reach 20 to 25 feet (610-762 cm) long and weigh up to 1,000 pounds (453.6 kg) or more. However, the usual catch is less than 30 pounds (13.6 kg). All-tackle record for the Pacific (Mayor Island, New Zealand) is 729 pounds (330.7 kg) and 101 inches (256.6 cm) long. COLOR: Gray to black above, fading to white below. A pelagic shark common to the offshore waters of the eastern Pacific south of Cape Flattery, Wash. Caught during summer in central and southern California; best fishing is in the Los Angeles outer harbor. One of the most desirable species of shark for table food, also excellent when smoked.

## LAMNIDAE: MACKEREL SHARKS

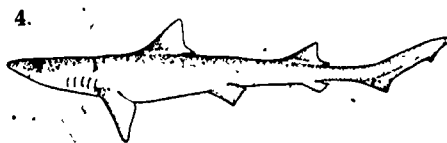


2. SHORTFIN MAKO, bonito shark, *Isurus oxyrinchus* Rafinesque. DISTRIBUTION: Temperate and tropical waters of the Pacific Ocean to Hawaii and Japan. Known in the eastern Pacific from the Columbia River to Chile. SIZE: Reported to reach 12 feet (366 cm) long and weigh up to 1,000 pounds (453.6 kg). However, the size usually ranges from 4 to 8 feet (122-244 cm) long. All-tackle record in the Pacific (Mayor Island, New Zealand) is 1,061 pounds (481.3 kg) and 12 feet 2 inches (370.9 cm) long. COLOR: Dark gray above, white below. Appears off the southern California coast in summer, and is the subject of a growing sport fishery. A pelagic shark, may be dangerous to humans, but regarded as a good food species.

## CARCHARHINIDAE: REQUIEM SHARKS



3. BLUE SHARK, *Prionace glauca* (Linnaeus). DISTRIBUTION: Tropical and temperate seas of the world; in eastern Pacific Ocean from Chile to the Gulf of Alaska. SIZE: Length is reported to 15 feet (457 cm), but most caught off southern California are less than 8 feet (244 cm) and weigh less than 50 pounds (22.7 kg). All-tackle record in the Atlantic (Rockport, Mass.) is 410 pounds (186.0 kg) and 11½ feet (350.6 cm) long. COLOR: Dark blue above, white below. One of the more important pelagic sharks in catches of the southern California sport fishery during summer and fall. Good fighter on light tackle, but not a particularly good food species. Common to offshore waters, but also occurs inshore off southern and central California during summer and fall.



4. BROWN SMOOTHHOUND, *Mustelus henlei* (Gill). DISTRIBUTION: Gulf of California, Mexico, to Humboldt Bay,

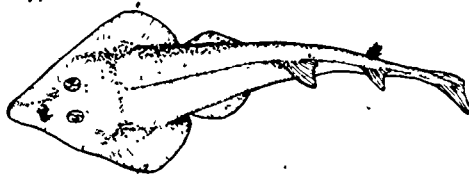
Calif. SIZE Reaches about 3 feet (91 cm) long. COLOR: Reddish brown fading to white on belly. □ Common in bays from San Francisco south and is one of the most abundant sharks entering the sport fishery catch. It is a good sport species on light tackle and frequently taken by anglers along sandy shores, from piers, and in harbors.

5. GRAY SMOOTHHOUND. *Mustelus californicus* Gill. DISTRIBUTION: Mazatlán, Mexico, to Cape Mendocino, Calif. SIZE: Length recorded to about 5 feet (152 cm). COLOR: Dark gray to brown above, white below. □ Of minor importance to sport anglers; commonly taken in the surf zone, however.



6. LEOPARD SHARK, cat shark. *Triakis semifasciata* Girard. DISTRIBUTION: Mazatlán, Mexico, to Oregon. SIZE: reported to attain 6½ feet (198 cm) in length. COLOR: Gray with black spots and crossbars; belly lighter. □ Abundant in central and southern California and caught largely in bays, off jetties, and along sandy beaches most of the year. Caught in large numbers during the fall in San Francisco Bay. A desirable food species.

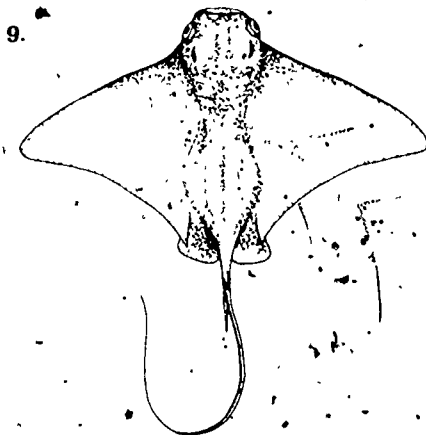
#### RHINOBATIDAE: GUITARFISHES



7. SHOVELNOSE GUITARFISH, shovelnose shark. *Rhinobatos productus* (Ayres). DISTRIBUTION: Gulf of California, Mexico, to Monterey Bay, Calif. SIZE: Reaches a length of about 5 feet (152 cm) and a weight of up to 40 pounds (18.1 kg). COLOR: Brownish gray, white underside. □ Often caught by pier, bay, and surf anglers, and common over sand and mud bottom in shallow bays and estuaries in southern California. Not a desirable food species, although the dorsal meat is reported to be palatable. Provides considerable recreation and taken all year throughout most of its range.

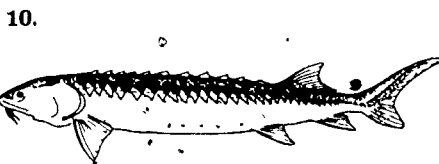
8. THORNBACK. *Platyrrhinoidis triseriata* (Jordan and Gilbert). DISTRIBUTION: Turtle Bay, Baja California, Mexico, to central California. Rare north of Point Conception. SIZE: Length to about 2½ feet (76 cm). COLOR: Brown on back, white or cream colored below. □ Although taken in fair numbers, they are not the major object of most anglers. Common in depths to 150 feet (45.7 m).

#### MYLIOBATIDAE: EAGLE RAYS



9. BAT RAY. *Myliobatis californica* Gill. DISTRIBUTION: Gulf of California, Mexico, to Oregon. SIZE: Maximum known weight is about 210 pounds (95.3 kg) with a spread of 4 feet (122 cm). COLOR: Dark brown to black above, white below. □ Only member of the eagle ray family caught in California, where it occurs along the outer coast and is commonly taken in bays such as San Diego Bay, Newport Bay, Los Angeles Harbor, Morro Bay, San Francisco Bay, and Tomales Bay. The bay ray is an active fighter and is classed as a good game species. It has a venomous spine on dorsal side at base of tail that can cause painful wounds. General treatment is to cleanse the wound thoroughly and immerse in warm to hot water with baking soda. Consult doctor for relief from pain and possible secondary infection.

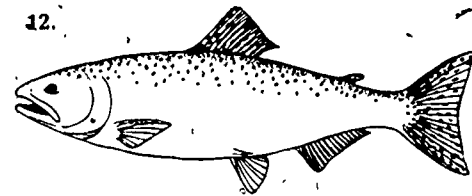
#### ACIPENSERIDAE: STURGEON



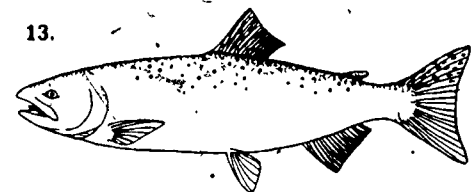
10. WHITE STURGEON, Pacific sturgeon. *Acipenser transmontanus* Richardson. DISTRIBUTION: Ensenada, Baja California, Mexico, to Gulf of Alaska. SIZE: Largest white sturgeon taken along the Pacific was reported to be about 20 feet (610 cm) long weighing 1,800 pounds (816.5 kg). However, today it would be uncommon to catch one over 500 pounds (226.8 kg). COLOR: Uniform gray. □ An important species taken in Suisun, San Pablo, San Francisco, and Coos bays, the Columbia River estuary, upper Willapa Bay, and upper Grays Harbor. Heavy fishing in the late 1800's for caviar and smoked sturgeon reduced the population drastically. Today the lower Columbia River appears to be the center of distribution, in the San Francisco area the numbers of sturgeon appear to be increasing and the fishery is becoming more popular. Several species of sturgeons exist in North America. Some are found only in fresh water, and some, like the white sturgeon, are anadromous.

11. GREEN STURGEON. *Acipenser medirostris* Ayres. DISTRIBUTION: Ensenada, Baja California, Mexico, to Alaska, Bering Sea, and Japan. SIZE: Length to 7 feet (213 cm), weight to 350 pounds (158.8 kg); most caught are much smaller than this. COLOR: Olive green with three longitudinal olive stripes on body. □ Similar in habits to the white sturgeon, although less is known of its life history.

#### SALMONIDAE: TROUT AND SALMON

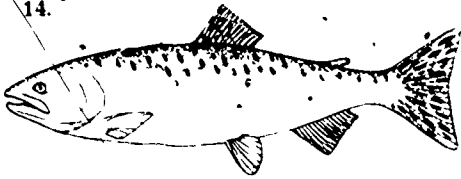


12. CHINOOK SALMON, king, spring, tyee, Quinat, *Oncorhynchus tshawytscha* (Walbaum). Young juveniles or "feeders" are sometimes called "blackmouth." DISTRIBUTION: Southern California to Alaska and south on the Asiatic side to the Amur River, USSR, also to northern Japan. SIZE: Record weight reported to 126½ pounds (57.4 kg); however, few are caught over 50 pounds (22.7 kg), and most average 18 to 25 pounds (8.2-11.3 kg) when mature. COLOR: At sea, dark gray above with silver sides and belly; black spots on back and both lobes of tail; gums at base of teeth black. □ Most desirable of marine game fish in northern waters and subject of an extensive ocean troll fishery. Principal fishing areas begin in the south off Pismo Beach and Avila, Calif., and extend into southern Alaska. Fished primarily by trolling with dead bait or lures, and drift fishing with live or frozen bait. Offshore fishing depth for this species is usually greater than for other salmon species.



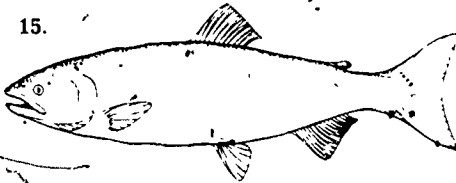
13. COHO SALMON, silver salmon, silversides, salmon trout, *Oncorhynchus kisutch* (Walbaum). DISTRIBUTION: Coronado Islands, Mexico, to Alaska, and south on the Asiatic side to Japan. SIZE: Coho grow to a length of 3 feet (91 cm) and a weight of 30 pounds (13.6 kg) or possibly more; most in the sport catch average less than 10 pounds (4.5 kg). COLOR: At sea, metallic blue green above; silver sides and belly, small black spots on back, dorsal fin, and upper lobe of tail fin; gums at base of teeth white. □ Ocean trolling for coho ("silvers") is most successful from near Fort Bragg, Calif., northward, although some are caught in the San Francisco area and a few are taken as far south as Point Mugu, Calif., area every year. Principal fisheries for this species are along the coasts of Oregon, Washington, and Alaska. Fishing technique used in the ocean is much the same as for other salmon.

14.



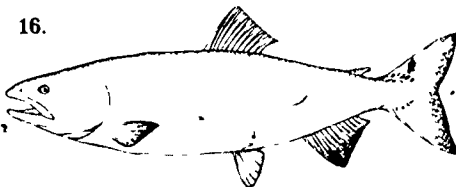
14. PINK SALMON, humpback salmon, *Oncorhynchus gorbusha* (Walbaum) DISTRIBUTION: Southern California to northwestern Alaska and along the Asian coast. SIZE: Reported to reach 2½ feet (76 cm) long and a maximum weight of about 12 pounds (5.4 kg). Averages about 6 pounds (2.7 kg) when mature. COLOR: Metallic blue above, silvery on sides, oval spots on tail and back with many as large or larger than eye diameter. Smallest of the five species of salmon. Common to the west coast, but usually not common south of Oregon. Major fisheries for this species are in the Strait of Juan de Fuca, in Puget Sound, and to the north. Pink salmon usually do not run very far upstream; most spawn in the lower parts of rivers. They are unique among Pacific salmon in that all fish mature at the end of their second year. Larger runs are reported in odd-numbered years in Puget Sound area, in Alaska runs occur in both odd- and even-numbered years, depending on specific area fished.

15.



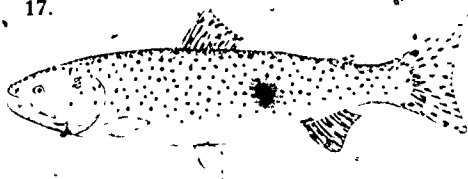
15. SOCKEYE SALMON, red salmon, blueback salmon, *Oncorhynchus nerka* (Walbaum) DISTRIBUTION: Southern Oregon to northwestern Alaska and Asia. SIZE: Length reported up to 2½ feet (76 cm), weight up to about 5 to 7 pounds (2.3-3.2 kg). COLOR: Greenish blue above, with greenish head; silvery on sides. Best fishing is from northern Oregon to northwestern Alaska and Asia. Spawning season lasts from March to August, major season is from June to August. Usually enters rivers that are fed by lakes. The sockeye salmon rarely takes a hook so is not a major contributor to the sport catch.

16.



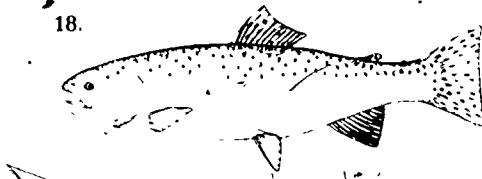
16. CHUM SALMON, dog salmon, fall salmon, *Oncorhynchus keto* (Walbaum) DISTRIBUTION: Southern California to northwestern Alaska and Asia. SIZE: Length up to 3½ feet (107 cm); average weight of 10 to 12 pounds (4.5-5.4 kg) when mature. COLOR: In brackish or salt water, fish are metallic blue above, sometimes with faint black specks; dark tips on pectoral, anal, and caudal fins. Best areas of fishing are from Washington north to off British Columbia, near the inshore areas along the Strait of Georgia. The chum salmon appears in late summer and fall in young schools, after spending usually 3 to 5 years at sea.

17.



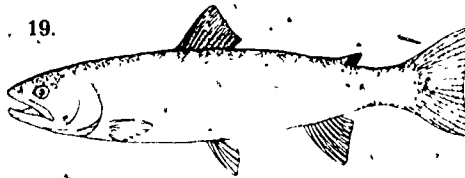
17. CUTTHROAT TROUT (sea-run), blueback, Columbia River trout, seatrout, *Salmo clarki* Richardson. DISTRIBUTION: Eel River, Calif., to southeastern Alaska, with some running into brackish and salt waters from coastal streams; rarely in the ocean off California. SIZE: Length reported up to 2½ feet (76 cm); weights usually run from 1 to 3 pounds (0.5-1.4 kg). COLOR: Greenish blue above, silvery on sides. Identified by a red slash under lower jaw, however, this may not be present in fish migrating from salt water. Best fishing found north of the Columbia River in brackish-water areas. Spawns February to May in small coastal streams, young, sometimes descend in second or third year and usually remain in estuaries for 1 or more years before returning to spawn. A predator on young salmon in the spring.

18.



18. RAINBOW TROUT, steelhead, sea-run rainbow trout, seatrout, salmon, trout, silversides, *Salmo gairdneri* Richardson. DISTRIBUTION: Northern Baja California, Mexico, to Alaska, Bering Sea, and Japan, with some running into salt water, though not now common south of Point Conception. SIZE: Reported to reach 3½ feet (107 cm) long and 36 pounds (16.3 kg) in weight; the usual catch is much smaller, averaging under 10 pounds (4.5 kg). COLOR: At sea, steel blue above, with silvery sides. Taken in the estuarine areas of both large and small streams, and also off river mouths. Season for fishing most coastal streams is December through March, usually best after winter rains result in a breakthrough of the "bar" at the mouth of the stream. In larger and cooler rivers, spawning run may start earlier in late summer or early fall. Some steelhead enter certain tributaries in spring or summer, and remain through the dry season until the following spring before spawning. This species spawns more than once, some may return to spawn for a second or third time.

19.

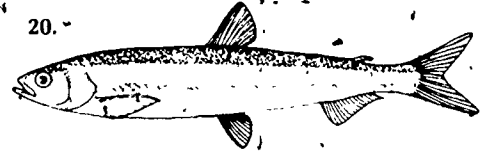


19. DOLLY VARDEN, Dolly, Oregon char, redspotted trout, salmon trout, malma trout, bull trout, seatrout, *Salvelinus malma* (Walbaum). DISTRIBUTION: Northern California to northwestern Alaska, running into saltwater estuarine areas. SIZE: Length reported to 3 feet (91 cm) and

maximum weight of 20 pounds (9.1 kg); usual catch is 1 to 3 pounds (0.5-1.4 kg) in weight, and 15 to 20 inches (38-51 cm) long. COLOR: Olive green to brown above with pale-yellow spots, orange-red spots on sides. Sea-run fish are silvery. Common to Puget Sound and southeastern Alaska. In some streams there is a seaward migration in spring and an upstream spawning migration in fall.

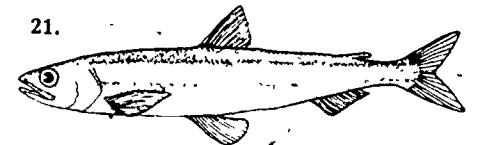
## OSMERIDAE: SMELTS

20.



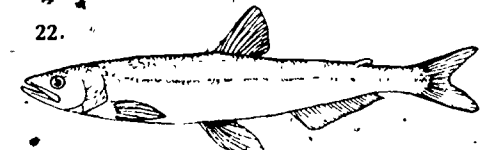
20. SURF SMELT, day smelt, silver smelt, surf fish, *Hypomesus pretiosus* (Girard). DISTRIBUTION: Long Beach, Calif., to Prince William Sound, Alaska. SIZE: Maximum length is about 10 inches (25 cm), average catch is about 8 inches (20 cm) or less. COLOR: Light olive green; sides silver with purple hue. Distinguished from the night smelt by its small mouth, which does not extend beyond a line drawn vertically from the middle of the eye. Best areas for fishing are north of Monterey Bay, Calif. Surf smelt does not spawn south of Scott Creek, Santa Cruz County, Calif. Shore spawning runs occur from March to September during daylight along sandy shores near river mouths. Surf smelt runs are correlated with the tides, and fish are usually caught with "A"-frame nets. In the north they are taken by jigging from piers in late winter.

21.



21. NIGHT SMELT, surffish, *Spirinchus starksi* (Fisk). DISTRIBUTION: Point Arguello, Calif., to Shelikof Bay, Alaska. SIZE: Length reported to about 9 inches (23 cm), usual length of catch is about 5 to 6 inches (13-15 cm). COLOR: Sides silver, olive green on back. Similar in many respects to surf smelt, but the mouth is larger and extends to below the posterior edge of the eye. Common to sandy shores (coarse sand) from central California to coastal Washington. Night smelt does not spawn south of Moss Landing, Calif. It appears to concentrate in much the same areas as the surf or day smelt, but spawns during darkness, and runs are not adjusted to tides. Method of capture is similar to that used for the surf smelt.

22.



22. EULACHON, candlefish, hooligan, smelt, *Thaleichthys pacificus* (Richardson). DISTRIBUTION: Bodega Bay, Calif., to Bering Sea, Alaska. SIZE: Reported to attain a length of 12 inches (30 cm). COLOR: Uniform light bluish, brown

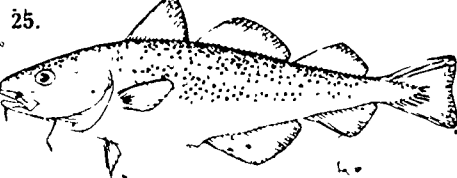
above, silvery on sides and belly. Common to the coasts of Oregon, Washington, and Alaska. Fished with nets about mouths of rivers and inlets as the fish migrate inshore to spawn in rivers from Mad River, Calif., northward to Alaska (March, April, and May) It is a very oily fish, and called candlefish because when dried and threaded with a wick it may be used as a candle

#### SMELTS OF LESS IMPORTANCE TO THE MARINE ANGLER

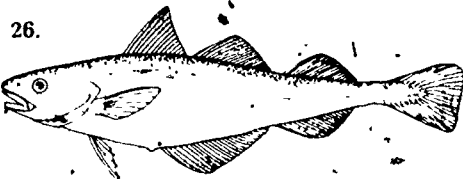
23 LONGFIN SMELT, *Spirinchus thaleichthys* (Ayres) DISTRIBUTION San Francisco Bay, Calif., to Prince William Sound, Alaska SIZE To about 6 inches (15 cm) COLOR Sides silver with brownish dorsal areas Spawns in coastal rivers and composes a major portion of the sport smelt catch.

24 WHITEBAIL SMELT, *Allosmerus elongatus* (Ayres) DISTRIBUTION San Pedro, Calif., to Strait of Juan de Fuca COLOR Sides silver back greenish Similar in appearance to the night smelt, but like the longfin, it composes a minor portion of the total sport catch of smelt Spawning behavior not known

#### GADIDAE: CODFISHES

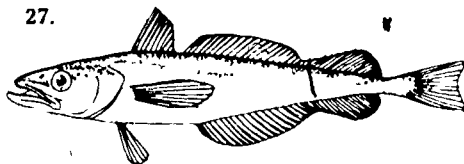


25 PACIFIC COD, true cod *Gadus macrocephalus* Tilesius DISTRIBUTION Santa Monica, Calif., to northwestern Alaska and Asia (Yellow Sea) SIZE Length recorded to at least 3 3/4 feet (114 cm) and weight up to 40 pounds (18.1 kg) COLOR Brownish gray above fading to lighter below; brown spots on upper parts; edges of fins white. An excellent food species commonly available off the coast of northern Oregon, Washington, and Alaska. Migrates from deep to shallower water, though usually caught in water deeper than 60 feet (18.3 m) Reported to spawn in winter and in early spring and is abundant in coastal waters at that time



26 PACIFIC TOMCOD *Microgadus proximus* (Girard) DISTRIBUTION Point Sal, Calif., to Unalaska Island, Alaska SIZE Usually less than 12 inches (30 cm) long and 1 pound (0.5 kg) in weight, fish over 2 pounds (0.9 kg) are very rare COLOR Olive or brownish above, white on sides and belly. Abundant from San Francisco north and taken by pier, jetty, and skiff anglers. A good food, but sometimes discarded because of small size.

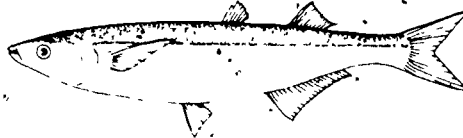
27.



27 PACIFIC HAKE, *Merluccius productus* (Ayres) DISTRIBUTION Gulf of California, Mexico, to Alaska, and Asiatic coast. SIZE Record length to about 3 feet (91 cm), most are 1 to 1 1/2 feet (30-46 cm) long COLOR Gray to dusky brown, with a brassy overtone. Sometimes taken off Oregon and Washington while salmon fishing in deep water. It is not a desirable sport species, though it is suitable for eating if prepared promptly

#### ATHERINIDAE: SILVERSIDES

28.



28 JACKSMELT, smelt, *Atherinopsis californiensis* Girard. DISTRIBUTION Santa Maria Bay, Baja California, Mexico, to Yaquina Bay Oreg SIZE Reported to reach a length of 22 inches (56 cm), most fish caught weight about 1/2 pound (0.2 kg) or less. COLOR Dusky green above, sides silvery, metallic band edged above with blue extends length of body. Commonly found year-round in bays and turbid-water areas. Usually caught in water of less than 100 feet (30 m). Known to spawn in bays during winter and spring, sometimes in sizable schools. One of the most abundant species in the catch of pier anglers in southern and central California.

29.



29 TOPSMELT, smelt, *Atherinops affinis* (Ayres) DISTRIBUTION Gulf of California, Mexico, to Vancouver Island, British Columbia. SIZE Length to about 14 inches (36 cm), average weight about 1/4 pound (0.1 kg) COLOR Bluish gray to bright green above, silvery below; metallic band edged above with blue or purple extends length of body. Frequent the same general areas and habitats as the jacksmelt. Fairly common in pier catches along the central California coast. Distinguished from the jacksmelt by placement of the first dorsal fin, which is located farther back, the last rays being opposite the origin of the anal fin

30.

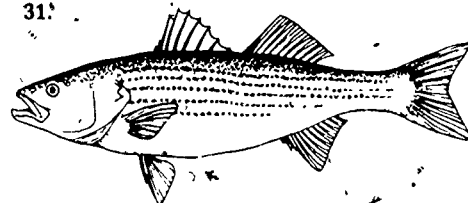


30 CALIFORNIA GRUNION, *Leuresthes tenuis* (Ayres) DISTRIBUTION Magdalena Bay, Baja California, Mexico, to San Francisco Bay, Calif. SIZE Length to

about 7 inches (18 cm); average weight to about 1/4 pound (0.1 kg) or less. COLOR: Bluish green above, silver below, a lateral metallic band tinged with blue and bordered above with violet extends length of body. A southern California fish, not common north of Point Conception. Tends to range along sandy shoreline, usually in water less than 50 feet (15.2 m) deep Best beaches for catching grunion are from Los Angeles south to Mexico. Spawns from March through August. Beaches itself between waves to spawn at night during high tides following the first three to four nights after the full and the dark of the moon.

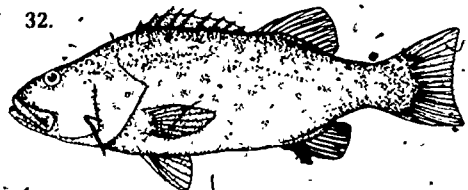
#### PERCICHTHYIDAE: TEMPERATE BASSES

31.



31 STRIPED BASS, striper, rock bass, *Morone saxatilis* (Walbaum). DISTRIBUTION Descanso Point, Baja California, Mexico to Barkley Sound, British Columbia SIZE Reported up to 6 feet (183 cm) and 125 pounds (56.7 kg) in the Atlantic. All-tackle record (Cuttyhunk, Mass.) is 72 pounds (32.7 kg), with a length of 54 1/2 inches (138 cm). In the Pacific, reported to reach about 4 feet (122 cm) and 90 pounds (40.8 kg); average catch is less than 10 pounds (4.5 kg). COLOR Brownish green above; silvery on sides and belly; seven or eight lateral stripes. Best fishing areas are in San Francisco Bay and the Sacramento-San Joaquin River Delta area where it was introduced from the east coast in 1879. Other good fishing spots are found at Coos Bay, Oreg., where a separate population has established itself. This species sometimes ranges south and north along the coast from San Francisco in summer during years of high sea surface temperatures, and is taken by surf anglers as far south as Monterey Bay (occasionally Morro Bay) and north to the Russian River. Migrates from bays and upper tidal areas into river systems to spawn, usually in April and May.

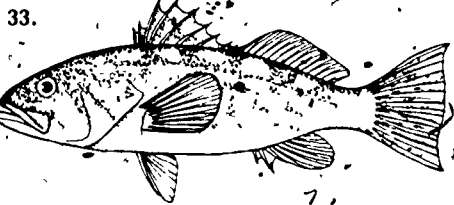
32.



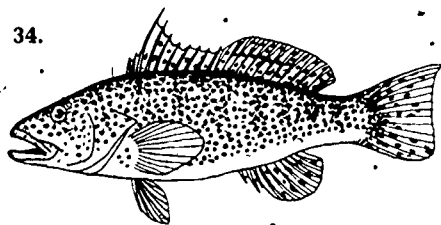
32 GIANT SEA BASS, black sea bass, *Stereolepis* (Ayres) DISTRIBUTION: Gulf of California, Mexico, to Humboldt Bay, Calif. SIZE Recorded up to over 500 pounds (226.8 kg) and over 7 feet (213 cm) long. All-tackle record for the Pacific (Anacapa Island, Calif.) is 568 1/4 pounds (258.0 kg), with a length of 7 feet 5 inches (226.1 cm). Some live to a very old age: a 435-pound (197.3-kg) fish was determined to be between 72 and 75 years old. COLOR: Dark brown to gray with blackish

hue above becoming lighter below; juveniles have dark spots on sides. In recent years the population level of this species is much reduced in southern California. Best fishing is found about Anacapa Island and near kelp beds from La Jolla, Calif. south along Baja California, Mexico, and in the Gulf of California. Large fish prefer rocky bottom, just outside kelp beds and along drop offs in water 115 to 150 feet (35.1-45.7 m) deep. Small fish can be found over sandy areas around and in the kelp in shallower water of about 40 to 70 feet (12.2-21.3 m) deep.

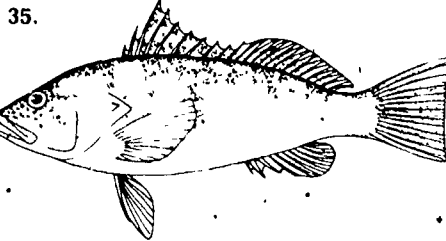
**SERRANIDAE: SEA BASSES**



33. **KELP BASS**, calico bass, bull bass, *Paralobrax clathrotus* (Girard) **DISTRIBUTION:** Magdalena Bay, Baja California, Mexico, to Columbia River. **SIZE:** Greatest weight recorded is 14½ pounds (6.6 kg) and a length to 28 inches (71 cm). They are reported to attain an age of 20 years or more. **COLOR:** Olive or brownish above with sides mottled with angular lighter shaded areas, becoming silvery below; belly and fins tinged with yellow. □ Common from Point Conception, Calif., to Baja California, Mexico, in coastal kelp beds. A major game species about kelp beds in southern California and a good food fish. Nonmigratory, spawning April through the fall in and near kelp over rough bottom. Distinguished from the barred sand bass in that the third, fourth, and fifth dorsal spines are about the same length, whereas the third dorsal spine of the barred sand bass is much longer than the other spines.

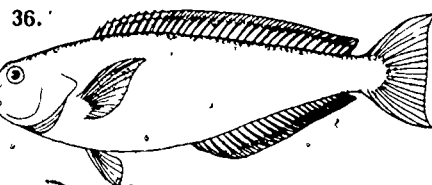


34. **SPOTTED SAND BASS**, *Paralobrax maculatofasciatus* (Steindachner) **DISTRIBUTION:** Gulf of California and Mazatlán, Mexico, to Monterey Bay, Calif. **SIZE:** Length to about 22 inches (56 cm). **COLOR:** Greenish to olive brown above, becoming white below, with black spots on body and fins. □ A sandy-shore and near-offshore species in southern California. Commonly caught in bays and around harbor entrances.



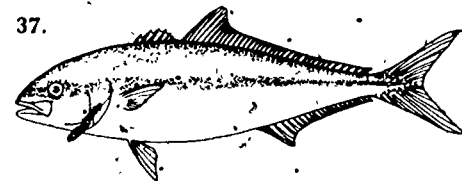
35. **BARRED SAND BASS**, sand bass, sugar bass, ground bass, *Paralobrax nebulifer* (Girard) **DISTRIBUTION:** Magdalena Bay, Baja California, Mexico, to Santa Cruz, Calif. **SIZE:** Length to about 25½ inches (65 cm). **COLOR:** Dark gray to greenish brown on back, with vertical irregular dusky bands; paler below, golden-brown spots on cheeks and snout. □ Distinguished from the kelp bass by the long third dorsal spine. Commonly caught over nearshore sandy bottom flats, in bays, and near kelp beds and rocky areas in southern California. Best catches are during summer.

**BRANCHIOSTEGIDAE: TILEFISHES**



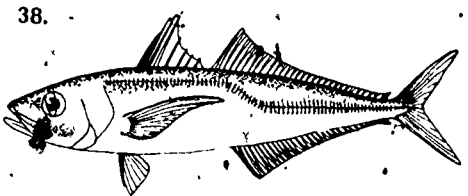
36. **OCEAN WHITEFISH**, whiting, blanquillo, *Caulolatilus princeps* (Jenyns) **DISTRIBUTION:** Peru to Vancouver Island, British Columbia. **SIZE:** Weights recorded up to 12 pounds (5.4 kg); however, 3 to 5 pounds (1.4-2.3 kg) is normal. **COLOR:** Rich brown to yellowish on back becoming lighter below with light spots on sides, yellow edging on fins; dorsal and anal fins with blue stripe; pectoral bluish with yellow stripe. □ Frequently caught from Point Conception, Calif., south to off Mexico. Usual depths of fishing are from 30 to 300 feet (9.1-91.4 m) over rocky bottom. Good fishing around southern California islands, and offshore banks such as Cortez and Tanner banks. Best fishing is spring through fall.

**CARANGIDAE: JACKS AND POM-PANOS**



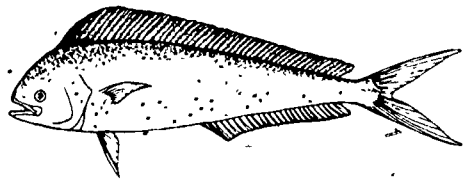
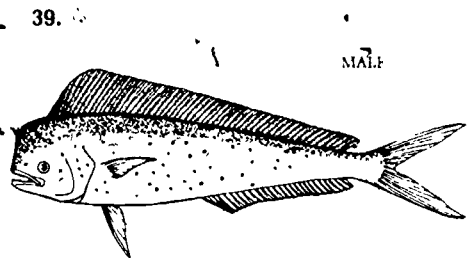
37. **YELLOWTAIL**, jurel, white salmon, amberjack, *Seriola dorsalis* (Gill) **DISTRIBUTION:** Chile to southern Washington. **SIZE:** Usual weight about 10 to 20 pounds (4.5-9.1 kg); record fish in the California-Mexico area reported to about 5 feet (152 cm) long weighing 80 pounds (36.3 kg). All-tackle record for the Pacific (Bay of Islands, New Zealand) is 111 pounds (50.3 kg) and 62 inches (157.5 cm) long. **COLOR:** Bright metallic blue to brownish green above, yellow lateral stripe from eye to

yellow tail; white below. □ A major sport species in southern California, frequently taken at the Coronado Islands and off Baja California, Mexico, as well as around Catalina Island and around kelp beds off San Diego north along the coast to the Santa Barbara Channel Islands. It is a migratory pelagic species, occurring during summer and early fall in southern California.



38. **JACK MACKEREL**, Spanish mackerel, horse mackerel, saurel, *Trachurus symmetricus* (Ayres) **DISTRIBUTION:** Baja California, Mexico, to southeastern Alaska, and offshore out to 500 miles. **SIZE:** Length usually to about 1 foot (30 cm); reported to 32 inches (81 cm). **COLOR:** Iridescent bluish green, mottled on back becoming lighter on sides and fading to silvery below. □ A major commercial species and an important sport fish in southern California. Frequently taken from sport boats and sometimes from jetties and piers in southern California. In its northern range it is sometimes taken from piers. Best fishing is July through September.

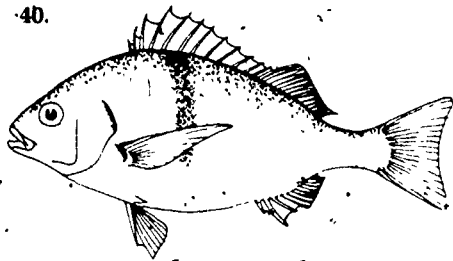
**CORYPHAENIDAE: DOLPHINS**



39. **DOLPHIN**, mahimahi, dorado, *Coryphaena hippurus* Linnaeus. **DISTRIBUTION:** Tropical and temperate seas. Recorded off the west coast from Chile north to off Grays Harbor, Wash. **SIZE:** All-tackle record for the Atlantic (Spanish Wells, Bahama Islands) is 85 pounds (38.6 kg) and 69 inches long (175.3 cm). In the Pacific, weight reported to 45 pounds (20.4 kg) and length to 6 feet (183 cm). **COLOR:** Brilliant blue or blue green above; sides bright golden yellow spotted with bright blue and white-green spots; white below. When dying, this fish will flash many rapidly changing colors. □ During some years having warmer water they are taken in fair numbers while surface trolling for striped marlin off San Diego, Calif. A brilliantly colored fish and an excellent fighter.

**POMADASYIDAE: GRUNTS**

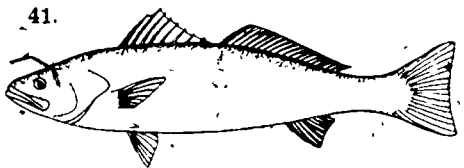
40.



40 SARGO, china croaker. *Anisotremus davidsoni* (Steindachner). DISTRIBUTION: Gulf of California, Mexico, to Santa Cruz, Calif., rare north of Point Conception, Calif. SIZE Reported to attain 23 inches (58 cm) and 4 pounds (1.8 kg); however, most angler-caught sargo are much smaller than this. COLOR Silver with grayish tinge on back, edge of gill cover black, dark spot on base of fin, vertical bar extending down from middorsal fin area. Found nearshore and in bays, common to shallow waters with rocky bottom, or about piers. Best fishing during summer.

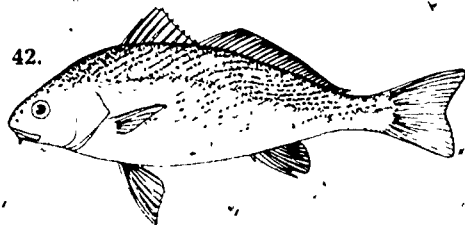
**SCIAENIDAE: DRUMS**

41.



41 WHITE SEABASS, Catalina salmon, seatrout, croaker. *Cynoscion nobilis* (Ayres). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Juneau, Alaska. SIZE Length to 5 feet 5 1/2 inches (166.4 cm) and weight of 83 3/4 pounds (38.0 kg)—an all-tackle record for a fish caught near San Felipe, Mexico. Average catch is 5 to 25 pounds (2.3-11.3 kg). COLOR: Steel blue to gray above with gold highlights, silvery below. Young have several dark vertical bars. A prized game fish and excellent food species. Caught along the coast northward from Baja California, Mexico, to central California. Most are caught near the mainland shore over sandy bottom, or around the edges of kelp beds, also near the kelp beds about Catalina and San Clemente islands. Young white seabass are commonly taken close to shore in southern California.

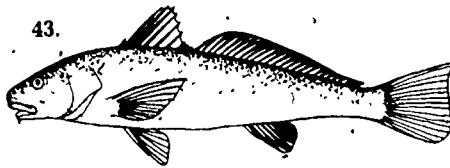
42.



42. YELLOWFIN CROAKER, Catalina croaker. *Umbrino roncodor* Jordan and Gilbert. DISTRIBUTION: Gulf of California, Mexico, to Point Conception, Calif. SIZE: Length recorded to about 18 inches (46 cm) and up to 3 pounds (1.4 kg). COLOR: Gray to iridescent blue, sometimes metallic green brassy luster above, shading to white below; wavy lines on sides

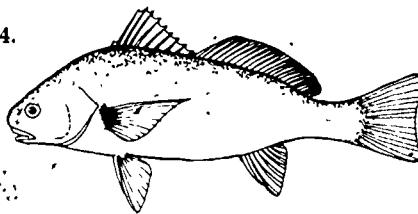
deep olive; fins, mostly yellow. Usually caught in shallow water over sandy bottom in the surf zone, and in bays and sloughs. It is a migratory species, and best fishing is in late summer, especially at Newport Beach and San Onofre, Calif.

43.



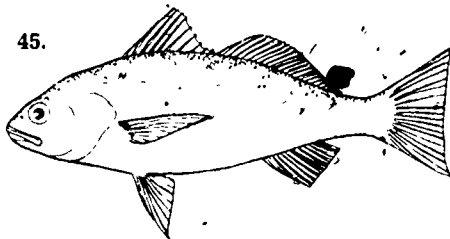
43. CALIFORNIA CORBINA, corvina, California whiting, surf-fish. *Menticirrhus undulatus* (Girard). DISTRIBUTION: Gulf of California, Mexico, to Point Conception, Calif. SIZE Reaches a length of about 2 1/2 feet (76 cm) or more and is reported to reach a weight of 8 pounds (3.6 kg). COLOR Gray to steel blue with silvery luster on back, paling to white below, sometimes has a wavy diagonal line on sides. The corbina is a surf-zone species common from Point Conception south along sandy shores. The area from Long Beach (Belmont Shores) to San Diego is reported to have the best fishing. Corbina are found inshore during summer and are believed to range into deeper water during winter. Best fishing is July to October. An excellent food species.

44.



44 SPOTFIN CROAKER, golden croaker. *Roncodor steernsi* (Steindachner). DISTRIBUTION: Mazatlan, Mexico, to Point Conception, Calif. SIZE: Reported to reach a length of at least 27 inches (69 cm) and a weight of 10 1/2 pounds (4.8 kg). COLOR: Silver gray with bluish luster above, becoming white below, dark spot at base of pectoral fin. This species is common south of the San Pedro-Long Beach, Calif., area and is fished along sandy beaches and in bays. Known to congregate in "holes" outside the surf zone. Spawns offshore in summer and tends to be a coastal migratory species. Late summer is best time for fishing.

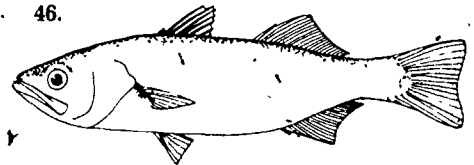
45.



45. WHITE CROAKER, kingfish, tomcod, roncky. *Genyonemus lineatus* (Ayres). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Vancouver Island, British Columbia. SIZE: Average weight of angler catch is usually less than 1 pound (0.5 kg). Largest recorded size was 15 1/2 inches (39 cm) and about 1 1/2 pounds (0.7

kg). COLOR: Silver with a brownish brassy luster above, becoming lighter below; fins yellowish (except pelvic). Abundant in shallow bays and lagoons from San Francisco, Calif., south. Also taken in and just outside the surf zone over sandy bottom, usually at depths of 10 to 60 feet (3.0-18.3 m); seldom caught at depths over 200 feet (61.0 m). Good food fish though small in size.

46.

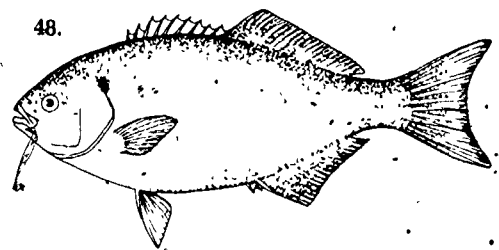


46 QUEENFISH, herring. *Seriphus politus* Ayres. DISTRIBUTION: Off Magdalena Bay, Baja California, Mexico, to Yaquina Bay, Oreg. Rare north of Monterey, Calif. SIZE: Reaches a length of 1 foot (30 cm). COLOR: Blush above, silvery below; fins yellowish. Known to occur in schools in shallow-water areas over sandy bottom. Common in bays and sloughs. Not a particularly desirable sport species; however, it provides considerable recreation to the southern California angler.

47. BLACK CROAKER, black bass, blue bass, china croaker. *Cheilotremo soturnum* (Girard). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Point Conception, Calif. SIZE Length to about 15 inches (38 cm). COLOR: Adults are bluish or dusky black with a coppery sheen above; silver below with dark specks; gill cover edged with black; pelvic fins black. Somewhat rare and taken only irregularly by southern California anglers.

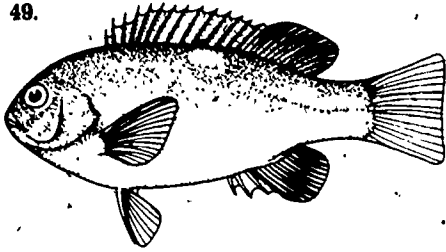
**KYPHOSIDAE: SEA CHUBS**

48.



48. HALFMOON, Catalina perch, blue perch. *Medioluno californiensis* (Steindachner). DISTRIBUTION: Gulf of California, Mexico to Klamath River, Calif. SIZE: Maximum recorded length is 19 inches (48 cm) with a weight to near 5 pounds (2.3 kg), although the usual catch is much smaller in size. COLOR: Slate colored to dark blue above, becoming paler blue and mottled on sides and below. A popular fish with the rocky shore angler. Best fishing is along the coast of southern California and about its offshore islands. Common to rocky shores and kelp beds. Best depths for fishing are from near the surface to 100 feet (30.5 m).

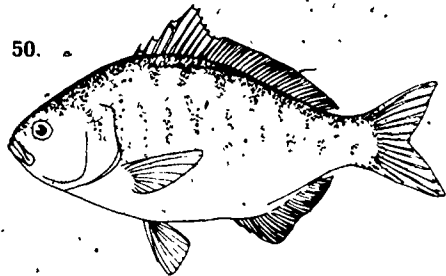
49.



49. **OPALEYE**, blue-eye perch, black perch, button-perch, Catalina perch, blue bass, blacksmith, *Girella nigricans* (Ayres). **DISTRIBUTION** Cape San Lucas, Baja California, Mexico, to San Francisco, Calif. **SIZE**: Record size reported to be about 25¼ inches (64 cm) and weight to 13½ pounds (6.1 kg); average size is less than 4 pounds (1.8 kg). **COLOR**: Greenish blue to olive above, becoming paler below; eye opalescent blue green; young with one or two white spots on back at base of dorsal fin. □ Best fishing areas are south of Point Conception, Calif., near rocky areas located near kelp beds. Common from the surface to about 60 to 100 feet (18.3-30.5 m) below the surface. Spawns during April, May, and June.

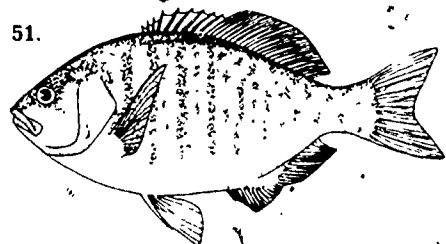
#### EMBIOTOCIDAE: SURFPERCHES

50.



50. **REDTAIL SURFPERCH**, porgy, *Amphistichus rhodotus* (Agassiz). **DISTRIBUTION** Monterey Bay, Calif. to Vancouver Island, British Columbia. **SIZE**: Length reported up to 16 inches (41 cm). **COLOR**: Light olive green above, silver sides and belly; orange to brassy bars alternating across lateral line, light red to purple caudal, anal, and pelvic fins. □ Primarily a sandy-shore species, abundant in the surf zone from northern California northward. Best catches around the mouths of streams and during spring. Sometimes taken from piers and jetties near inlets.

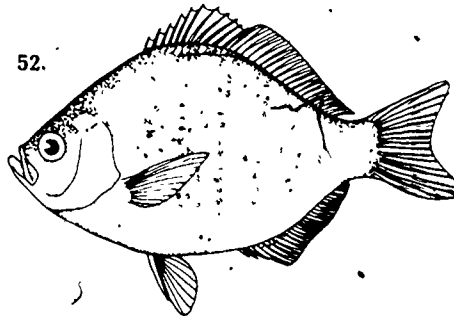
51.



51. **BARRED SURFPERCH**, *Amphistichus argenteus* Agassiz. **DISTRIBUTION**: Playa Maria Bay, Baja California, Mexico, to Bodega Bay, Calif. **SIZE**: Usual size caught by the angler is 1 to 2 pounds (0.5-0.9 kg) with a record catch of 17 inches (43 cm) and 4½ pounds (2.0 kg). **COLOR**: Olive green to yellow green on back, silvery with vertical bars on sides with intermittent spots. □ The major surf species

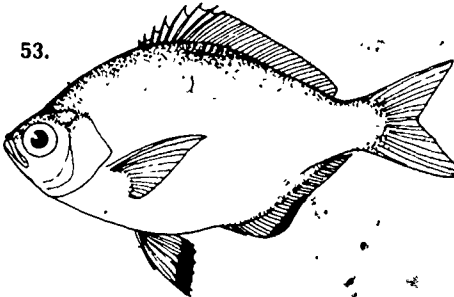
in southern California; most abundant along the coast from Morro Bay, Calif., south into Mexico. A very important game fish in the sandy surf zone where it congregates in bottom depressions. Shore fishing is best from December to March.

52.



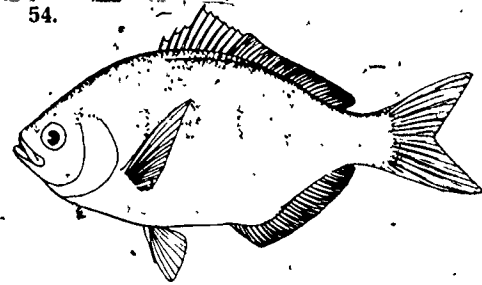
52. **CALICO SURFPERCH**, *Amphistichus koelzi* (Hubbs). **DISTRIBUTION**: Northern Baja California, Mexico, to Shi Shi Beach, Wash. **SIZE**: Average weight is near 1 pound (0.5 kg); maximum recorded length is over 11 inches (28 cm). **COLOR**: Light olive above, fading to silver below; brownish specks forming irregular crossbars, sometimes brassy luster on head and belly. □ Common in central California from Morro Bay to the San Francisco area. Beaches in the Monterey Bay area are reported to offer excellent fishing for this species. Caught in the sandy surf zone and frequently appears in the pier catch.

53.



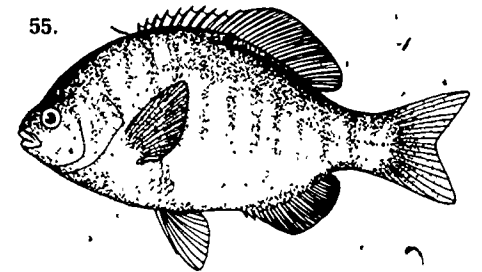
53. **WALLEYE SURFPERCH**, *Hyperprosopon argenteum* Gibbons. **DISTRIBUTION**: Point San Rosarito, Baja California, Mexico, to Vancouver Island, British Columbia. **SIZE**: Usual length is from 4 to 6 inches (10-15 cm) with a record length of about 12 inches (30 cm). Average weight is a little over ¼ pound (0.1 kg). **COLOR**: Metallic gray above fading to silver on sides and belly; dusky bars sometimes present on sides; usually identified by its large eyes and black-tipped pelvic fins. □ Found mostly over sandy bottom near rocky areas. Probably the most abundant surfperch common to the open rocky coast and in bays. A shallow-water species and a dominant one in pier catches.

54.



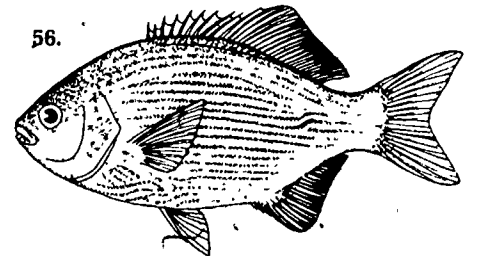
54. **SILVER SURFPERCH**, silver perch, *Hyperprosopon ellipticum* (Gibbons). **DISTRIBUTION**: Rio San Vicente, Baja California, Mexico, to Vancouver Island, British Columbia. **SIZE**: Reaches a maximum length of about 10½ inches (27 cm). Most catches are much smaller and average weight is about one-tenth of 1 pound (0.05 kg). **COLOR**: Metallic dark gray above, silver on sides and belly; dusky bars on sides; tail usually pink. □ This small surfperch is another sandy-shore species taken by surf anglers. Similar in appearance to the walleye surfperch; however, it does not have black-tipped pelvic fins.

55.



55. **BLACK SURFPERCH**, black perch, bay perch, *Embiotoca jacksoni* Agassiz. **DISTRIBUTION**: Point Abreojos, Baja California, Mexico, to Fort Bragg, Calif. **SIZE**: Usual weight about ¾ pound (0.3 kg); known to reach a length of 15¼ inches (39 cm). **COLOR**: Variable, dark olive green to light reddish brown sometimes tinged with red or yellow; occasionally with blue stripes formed by small blue crescents in the middle of each scale; anal and pelvic fins often reddish orange. □ Common to rocky coasts near kelp areas; also found around piers, pilings, and in coastal bays. A shallow-water species, only rarely taken in sandy surf.

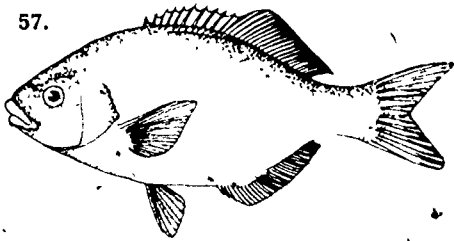
56.



56. **STRIPED SURFPERCH**, *Embiotoca lateralis* Agassiz. **DISTRIBUTION**: Point Cabras, Baja California, Mexico, to Port Wrangel, Alaska. **SIZE**: Average weight little over 1 pound (0.5 kg); maximum length recorded 15 inches (38 cm). **COLOR**: Red, blue, and yellow stripes along scale rows over coppery background on body; head with blue spots and stripes; pelvic fins dusky. □ This colorful surfperch is commonly caught around rocky shores, near pilings, or bulkheads in bays; frequently

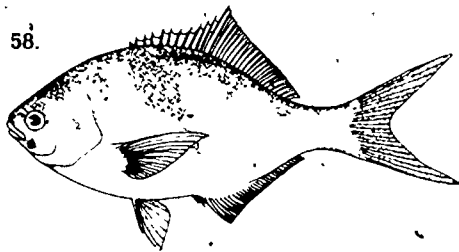
found in kelp bed areas. An important sport species along the northern California, Oregon, Washington, and British Columbia coasts.

57.



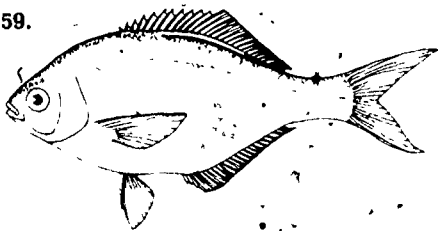
57. RUBBERLIP SURFPERCH. *Rhacochilus toxotes* Agassiz. DISTRIBUTION Turtle Bay, Baja California, Mexico, to Russian Gulch, Calif. SIZE Length recorded to 18½ inches (47 cm). COLOR Variable, often brown to dusky blue above, shading to tanish silver on belly, fins dark except for pectorals, which are often pale orange or yellow; lips are a distinctive light pink. An excellent food species, and one of the more desirable of the surfperches. Central and southern California are the best fishing areas. Found near rocky areas and in bays around pilings or other underwater structures.

58.



58. PILE SURFPERCH. *Damalichthys vacca* (Girard). DISTRIBUTION Guadalupe Island, Baja California, Mexico, to Port Wrangel, Alaska. SIZE Average weight is about 1¼ pounds (0.6 kg), maximum recorded length is slightly over 17 inches (43 cm). COLOR Variable, from brown to gray black above, silvery to dusky on sides, dark vertical bar on midbody, fins dusky tipped. This species is common, as its name indicates, to pilings, piers, and other shallow-water obstructions in coastal bays. Sometimes it is taken from kelp areas and near rocky shores. Best fishing areas are found north of Point Conception to Vancouver Island, British Columbia.

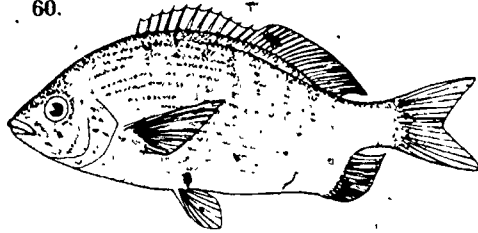
59.



59. WHITE SURFPERCH. *Phanerodon furcatus* Girard. DISTRIBUTION Point Cabras, Baja California, Mexico, to Vancouver Island, British Columbia. SIZE Length up to 1 foot (30 cm), average weight about ½ pound (0.2 kg). COLOR Silvery with dusky speckling on back, sometimes with a rosy-orange luster, fins yellowish with dusky edge on tail fin, black line on base of soft dorsal fin. Common to

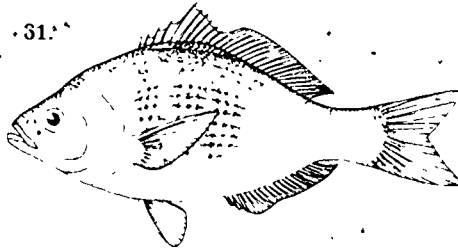
central and southern California and is usually caught from piers in bays, or off jetties at harbor entrances, generally over sandy bottom.

60.



60. RAINBOW SURFPERCH. *Hypsurus caryi* (Agassiz). DISTRIBUTION Santo Tomas, Baja California, Mexico, to Cape Mendocino, Calif. SIZE Average weight about ½ pound (0.2 kg); known to reach a length of 16 inches (41 cm). COLOR Vivid horizontal stripes of red, orange, and blue on sides; irregular streaks of sky blue and orange on head, pelvic fins bright blue and red orange. Found in rocky areas along the open coast and in bays in California. Few are caught south of the Los Angeles area. Similar to black perch in that they are rarely caught in sandy surf areas.

61.



61. SHINER SURFPERCH. yellow shiner, *Cymatogaster aggregata* Gibbons. DISTRIBUTION San Quintin Bay, Baja California, Mexico to Port Wrangel, Alaska. SIZE Usually less than 4 inches (10 cm) long. Maximum weight about ½ pound (0.2 kg), length about 8 inches (20 cm). COLOR Dusky back with sides and belly silver, three vertical yellow bars below lateral line. Abundant and one of the most easily caught surfperch. Ranges from nearshore to depths of over 200 feet (61 m), more common to shallow inshore areas around piers and pilings and near eel grass sloughs.

#### SURFPERCHES OF LESS IMPORTANCE TO THE MARINE ANGLER

62. KELP SURFPERCH. *Brachystius frenatus* Gill. DISTRIBUTION Turtle Bay, Baja California, Mexico, to Vancouver Island, British Columbia. SIZE Length about 8½ inches (22 cm). COLOR Golden brown to reddish brown on back, becoming copper red below; fins light red. A minor game species, found off rocky coasts in kelp beds.

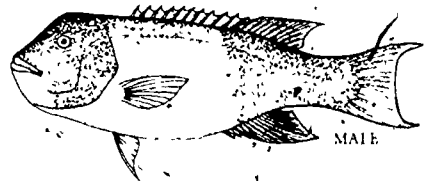
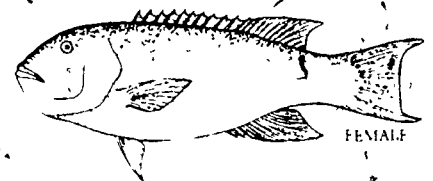
63. SPOTFIN SURFPERCH. *Hyperprosopon anale* Agassiz. DISTRIBUTION Blanca Bay, Baja California, Mexico, to Seal Rock, Ore. SIZE Length to 6 inches (15 cm). COLOR Body silver with dusky color on back, two large black spots on dorsal and anal fins. Taken occasionally by anglers, but generally of minor importance.

64. SHARPNOSE SURFPERCH. *Phanerodon atripes* (Jordan and Gilbert). DISTRIBUTION San Benito Island, Baja California, Mexico, to Bodega Bay, Calif. SIZE Length to 12½ inches (32 cm). COLOR Silvery with dusky speckling on back; thin black line at base of soft dorsal fin, pelvic fins white. Similar in appearance to the white surfperch.

65. PINK SURFPERCH. *Zajembius rosaceus* (Jordan and Gilbert). DISTRIBUTION San Cristobal Bay, Baja California, Mexico, to central California. SIZE Length is reported to be to 8 inches (20 cm). COLOR Distinguished by its rosy-red coloration; pink brown on upper body; two brown spots under the dorsal fin. A deepwater species (30-300 feet or 9.1-91.4 m).

#### LABRIDAE: WRASSES

66.



66. CALIFORNIA SHEEPHEAD. redfish, humpy, fathead, *Pisces pulchrum* (Ayres). DISTRIBUTION Gulf of California, Mexico, to Monterey Bay, Calif., uncommon north of Point Conception, Calif. SIZE Length reported up to 3 feet (91 cm) and weight up to 36¼ pounds (16.4 kg). COLOR Adult males have a black head and tail and a red band on the midsection, chin is white on both sexes. Adult females are dull red or brownish red. Best fishing is in coastal kelp beds and about the offshore islands south of Point Conception at depths of 50 to 100 feet (15.2-30.5 m). A fatty hump develops on the male's forehead during breeding season.

#### WRASSES OF LESS IMPORTANCE TO THE MARINE ANGLER

67. ROCK WRASSE. *Hahchoeres semicinctus* (Ayres). DISTRIBUTION Gulf of California, Mexico, to Point Conception, Calif. SIZE Length reported up to 5 inches (13 cm). COLOR Greenish brown; dusky vertical bars, male with dark-blue bar under pectoral fin. Found over rocky bottom, but is of minor importance to sport anglers, if not undesirable, due to its habit of snatching bait from the hook.

68. SEÑORITA. *Oxyjulis californica* (Günther). DISTRIBUTION Central Baja California, Mexico, to central California. SIZE Length to 10 inches (25 cm). COLOR Reddish orange above, yellow below, black area on caudal fin base. A long slender wrasse, very



abundant within its range, but like the rock wrasse, is considered a pest because it often steals bait intended for more desirable species.

#### SPHYRAENIDAE: BARRACUDAS

69.



69. PACIFIC BARRACUDA. California barracuda, scooter, barry, *Sphyræna argenteo* Girard. DISTRIBUTION: Cape San Lucas, Baja California, Mexico, to Kodiak Island, Alaska, however, it is not common north of Point Conception, Calif. SIZE: Record weight is reported to be about 18 pounds (8.2 kg), and a length of about 4 feet (122 cm). COLOR: Grayish black with a blue tinge on back, and silvery or white on sides and belly; tail yellowish. A major game species in southern California, and sometimes caught farther north off Avila, Calif., in summer. Usually caught by trolling or casting live bait near the mainland coast or about the southern California islands. Summer is the best fishing season. Young fish are usually found closer to shore than the adults.

#### STICHAEIDAE: PRICKLEBACKS

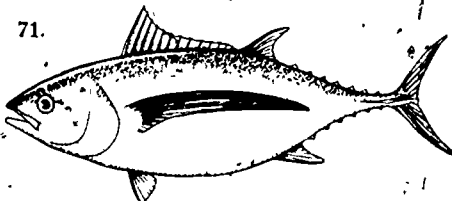
70.



70. MONKEYFACE PRICKLEBACK. monkeyface eel, blenny eel, *Cebidichthys violaceus* Girard. DISTRIBUTION: San Quentin Bay, Baja California, Mexico, to Crescent City, Calif. SIZE: Length to 30 inches (76 cm). COLOR: Uniform dull black, sometimes with reddish spots on sides; two dark bars below eye. Common in rocky intertidal areas out to 80 feet (24.4 m), inhabiting deep rocky pools between the tide lines in crevices or holes in the rocks. Algae seems to be its primary food, although it also will take shrimp and other marine invertebrates. Most are caught by poke-polers—anglers who poke a baited hook into tide-pool crevices during low tide.

#### SCOMBRIDAE: MACKERELS AND TUNAS

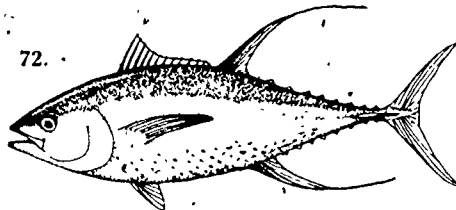
71.



71. ALBACORE. longfin tuna, *Thunnus alalunga* (Bonnaterre). DISTRIBUTION: Temperate waters of the Atlantic Ocean, in Pacific Ocean, from Gualalupe Island, California, Mexico, to southeast

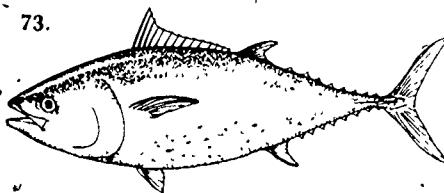
Alaska. SIZE: Reported to reach a length of 5 feet (152 cm) and a weight of 93 pounds (42.2 kg). A record sport-caught fish off California coast was reported to weigh 66 1/4 pounds (30.0 kg). All-tackle record for a fish caught off Cape Point, South Africa, weighed 70 pounds (31.8 kg) with a length of 50 1/2 inches (128.3 cm). COLOR: Dark steel blue or gray blue on back becoming silver gray on sides and belly; narrow white border on caudal fin. Best sport fishing is July through September (August best) offshore in southern California. Some sport anglers fish for albacore off central and northern California and Oregon in August and September. Albacore is a migratory pelagic species that tends to inhabit the clearer offshore California Current waters that lie outside the greenish-colored nearshore coastal waters.

72.



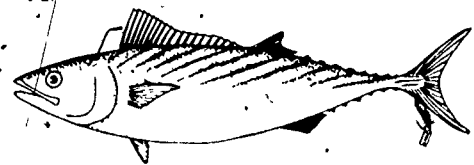
72. YELLOWFIN TUNA. Allson tuna, *Thunnus albacares* (Bonnaterre). DISTRIBUTION: Cosmopolitan in tropical and subtropical seas, Hawaiian Islands, eastern Pacific from Chile to Point Buchon, Calif. SIZE: Reported to 450 pounds (204.1 kg); however, catches are rarely over 125 pounds (56.7 kg). All-tackle record in the Pacific (San Benedicto Island, Mexico) is 308 pounds (139.7 kg), with a length of 84 inches (213.4 cm). COLOR: Dark metallic blue above, fading into silver gray below; iridescent yellow band running from head to tail. Fins lengthen with age and are tinged with yellow. Irregular white dots form bars on belly of younger fish. This species rarely enters the sport fishery off southern California in the summer, and then only during years having very high sea surface temperatures. Although not often caught off southern California, it is much sought after by U.S. anglers off the coast of Mexico.

73.



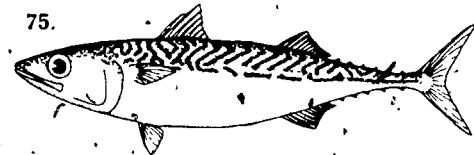
73. BLUEFIN TUNA. *Thunnus thynnus orientalis* (Temminck and Schlegel). DISTRIBUTION: In the eastern Pacific from Peru to Shelikof Straits, Alaska, and west to Asia (Kuril Islands). SIZE: Recorded weight to 297 pounds (134.7 kg) in Pacific, however, most angler-caught bluefin are in the range of 10 to 40 pounds (4.5-18.1 kg). COLOR: Deep blue above, silvery on sides and white below; irregular white spots on belly. Excellent game species, sometimes taken off southern California in summer, though not in great numbers. A pelagic schooling species, with popular fishing areas off Santa Monica Bay and Oceanside, Calif., and about Catalina, San Clemente, and the Coronado islands.

74.



74. PACIFIC BONITO, bonehead, *Sarda chiliensis lineolata* (Girard). DISTRIBUTION: Baja California to Gulf of Alaska. SIZE: Reported to reach a weight of 25 pounds (11.3 kg) and a length of 40 inches (102 cm); however, the usual weight of sport-caught bonito is 1 to 4 pounds (1.8 kg and under). COLOR: Metallic blue green to violet on back, fading to silver on sides and below; dark oblique stripes on back. A pelagic, migratory schooling species commonly caught by trolling and live bait casting off southern California during summer and fall. Trolling is best off kelp beds and along the coast from Point Dume to La Jolla, Calif., and about Catalina, San Clemente, and the Coronado islands. Successful fishing depends on higher sea temperatures off southern California.

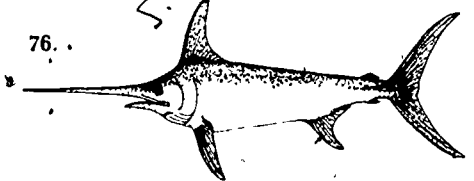
75.



75. CHUB MACKEREL. Pacific mackerel, zebra, greenback; striped mackerel, *Scomber japonicus* Houttuyn. DISTRIBUTION: Chile to the Gulf of Alaska and transpacific. SIZE: Average size of fish caught by anglers is about 1 pound (0.5 kg). The record length is reported to be 25 inches (64 cm) and a weight of near 6 1/2 pounds (2.9 kg). COLOR: Dark green to blue above with dark wavy bars on back, shading into iridescent silvery on sides. A pelagic schooling species commonly caught near the coast off southern California. Fishing is good all year when abundant; however, the Pacific mackerel resource is now at a low level and catches are reduced. Best fishing is in summer and fall.

#### XIPHIIDAE: SWORDFISHES

76.

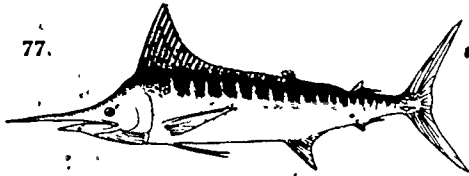


76. SWORDFISH, broadbill, *Xiphias gladius* Linnaeus. DISTRIBUTION: Worldwide in warm seas; from Chile to Oregon in the eastern Pacific. SIZE: The weight of most swordfish caught off southern California by anglers is within the range of 150 to 300 pounds (68.1-136.1 kg). All-tackle record in the Pacific (Iquique, Chile) is 1,182 pounds (536.2 kg) with a length of 14 feet 11 inches (454.8 cm). COLOR: Dark gray above, fading to silver gray or gray yellow on belly. In southern California, this excellent food fish is harpooned commercially and taken by

sport anglers during summer into fall by hook and line. It is usually associated with islands and banks, mouths of undersea canyons, and steep submarine ridges. Swordfishing is becoming a popular sport off southern California.

#### ISTIOPHORIDAE: BILLFISHES

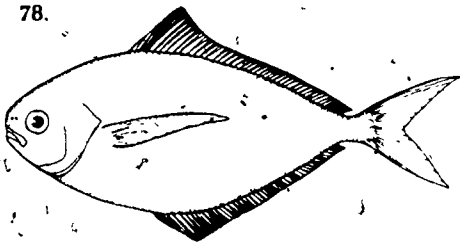
77.



77. STRIPED MARLIN, *Tetrapturus audax* (Philippi) DISTRIBUTION: Throughout, the warmer waters of the Indian and Pacific oceans. In the eastern Pacific from Chile to Point Conception, Calif. SIZE: Known to reach a weight of 350 pounds (158.8 kg) and a length of 12 feet (366 cm). Average weight of fish caught off San Diego is 110 to 140 pounds (49.9-63.5 kg). All-tackle record in the Pacific (Cape Brett, New Zealand) is 394 pounds (178.7 kg) with a length of 134 inches (340.4 cm). COLOR: Dark purplish blue above, fading to silvery below; dorsal and anal fin cobalt blue, sides with light-blue stripes. □ This species is pelagic in habitat and is found throughout the tropical and subtropical Pacific. This is the major billfish species caught off southern California during summer and fall (mid-August to mid-September usually best). Caught by trolling baits or lures.

#### STROMATEIDAE: BUTTERFISHES

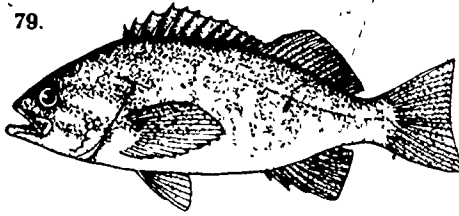
78.



78. PACIFIC POMPANO, butterfish, *Peprilus simillimus* (Ayres) DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to the mouth of Fraser River, British Columbia. SIZE: Length to about 11 inches (28 cm). COLOR: Iridescent silver green on back, becoming silvery on sides and belly. □ Commonly caught off southern and central California throughout the year. Usually found over sandy bottom. Frequently caught in bays during late summer and fall, offshore in deeper water for the rest of the year. An excellent food species.

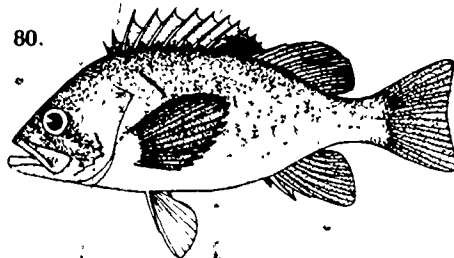
#### SCORPAENIDAE: SCORPIONFISHES

79.



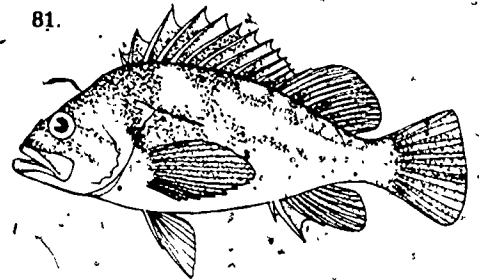
79. BLUE ROCKFISH, priestfish, bluefish, blue perch, *Sebastes mystinus* (Jordan and Gilbert). DISTRIBUTION: Point Santo Tomas, Baja California, Mexico, to Bering Sea, Alaska. SIZE: Record length is near 21 inches (53 cm), most catches are less than 15 inches (38 cm). COLOR: Dark blue above, shading to lighter below with light-blue mottling, fins uniformly blackish. Young are reddish up to 2½ inches (6 cm) long. □ Often confused with black rockfish, but distinguished by the slanted or straight anal fin, and absence of spots on dorsal fin. A shallow-water species usually found around rocky or kelp areas; however, they do range in depth to 200 or 300 feet (61.0-91.4 m). Best fishing from central California ports such as Morro Bay and Monterey Bay and north to off Oregon and Washington.

80.



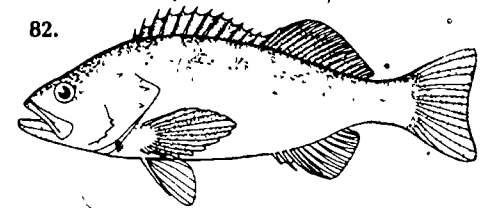
80. BLACK ROCKFISH, black snapper, black bass, bass rockfish, nero, cherna, *Sebastes melanops* Girard. DISTRIBUTION: Paradise Cove, Calif., to Amchitka Island, Alaska. SIZE: Usual weight of adults ranges to about 3 pounds (1.4 kg) and length is reported up to 23¾ inches (60 cm). COLOR: Black with gray mottling on sides shading to a white belly, black spots above the base of the spiny dorsal fin, fins dark gray. □ Often confused with the blue rockfish, but distinguished from it by the large mouth, rounded anal fin, and spots on dorsal fin. This species is abundant off northern California and Oregon, frequenting shallow-water reefs and commonly caught around kelp beds. It is sometimes taken by salmon trolling over deep offshore rocky areas.

81.



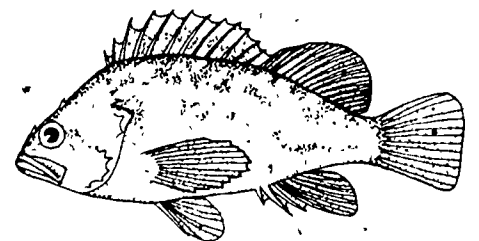
81. COPPER ROCKFISH, *Sebastes caurinus* Richardson. DISTRIBUTION: Monterey, Calif., to Kenai Peninsula, Alaska. SIZE: Record length reported to be about 22½ inches (57 cm). Average weight is about 2½ pounds (1.1 kg). COLOR: Dark olive or brown back with darker mottlings, all over a coppery-brown tinge with a pale stripe along lateral line of rear two-thirds of body. Very similar to the whitebelly rockfish, *Sebastes vexillaris*, which differs slightly in coloration and has a more southerly range (San Benito Islands, Baja California, north to Crescent City, Calif.). □ Young inhabit shallow water, adults deeper water. Common off the coast of northern California, Oregon, and Washington to the Strait of Georgia, British Columbia.

82.



82. OLIVE ROCKFISH, kelp yellowtail, kelp salmon, bass rockfish, sugar bass, *Sebastes serranoides* (Eigenmann and Eigenmann). DISTRIBUTION: San Benito Islands, Baja California, Mexico, to Redding Rock, Calif. SIZE: Reported to reach a length of 24 inches (61 cm); usual length is 6 to 12 inches (15-30 cm) and weight is usually less than 2 pounds (0.9 kg). COLOR: Olive brown above, fading to lighter on belly; whitish blotches on back under dorsal fin. □ Common to shallow water (50-100 feet or 15.2-30.5 m) around kelp beds and rocky bottom areas. Good fishing from central California south. Best fishing is along the southern California coast and about the offshore islands. Often confused with the yellowtail rockfish and kelp bass; however, if the number of soft rays in the anal fin is nine (instead of six to eight) it is very probably an olive rockfish. See also kelp bass for differences in dorsal fin shape.

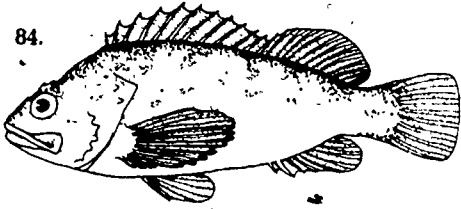
83.



83. KELP ROCKFISH, gopher rockfish, garrupa, *Sebastes atrovirens* (Jordan and Gilbert). DISTRIBUTION: Point San Pablo, Baja California, Mexico, to Timber Cove, Calif. SIZE: Usual weight is about 1 pound

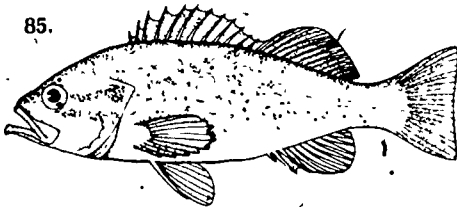
(0.5 kg); maximum length is reported to be near 17 inches (43 cm) COLOR: Mottled olive brown over lighter shades; throat yellow; head and body covered with dark speckles. □ As its name implies, this species is common around kelp beds, and also found around rocky reefs. Younger fish are usually caught farther inshore in shallower water than the adults. Distinguished from the grass rockfish by the long gill rakers which are long and slender, not short and stubby as those of the grass rockfish.

84.



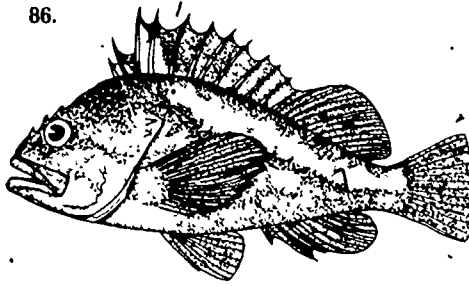
84. GRASS ROCKFISH. kelp rockfish. scomada. *Sebastes rastrelliger* (Jordan and Gilbert). DISTRIBUTION: Playa Maria Bay, Baja California, Mexico, to Yaquina Bay, Oreg. SIZE: Weight is usually less than 2 pounds (0.9 kg) with a record length reported to be about 22 inches (56 cm). COLOR: Dark green with light-green mottling above with lighter green or brown below; fins olive green with pelvic and pectoral fins tipped with red. □ Sometimes confused with the kelp rockfish (See kelp rockfish for distinguishing characters.) This species is taken along the coast in shallow waters with best fishing off central California southward along the coast. Commonly caught in waters of 100 feet (30.5 m) or less, over or near kelp beds or rocky areas. The young are frequently caught from piers.

85.



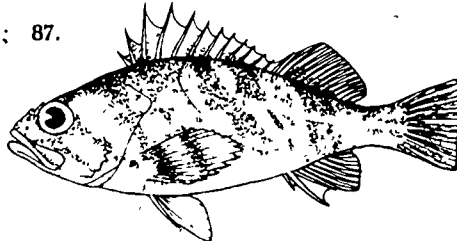
85. YELLOWTAIL ROCKFISH. green snapper. giallo, gialoto, cherne, yellowtail. *Sebastes flavidus* (Ayres). DISTRIBUTION: San Diego, Calif., to Kodiak Island, Alaska. SIZE: Average weight about 1½ to 2 pounds (0.7-0.9 kg), length reported to 26 inches (66 cm). COLOR: Mottled grayish brown above shading to white on belly; fins dusky yellow with tail fin tipped with bright yellow; tips of lower pectoral fin tinged with pink. □ Distinguished from olive rockfish by the eight soft rays in anal fin, and by presence of fine reddish-brown speckling on scales—olive rockfish almost always have nine soft anal rays and no speckling on sides. An important game fish species off the central California coast and to the north. Inhabits predominantly deepwater reefs.

86.



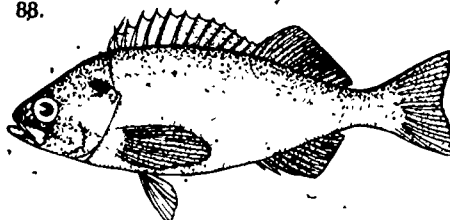
86 CHINA ROCKFISH. cefalutano, gopher. *Sebastes nebulosus* Ayres. DISTRIBUTION: San Miguel Island, Calif., north to southeastern Alaska. SIZE: Average weight about 2 pounds (0.9 kg); record length to 17 inches (43 cm). COLOR: Broad, bright yellowish stripe from dorsal fin area along lateral line on each side of blue-black body, with white spotting. □ Occurs nearshore and in water depths of 120 feet (36.6 m) or less. Caught over rocky bottom, sometimes in association with gopher, kelp, and grass rockfishes.

87.



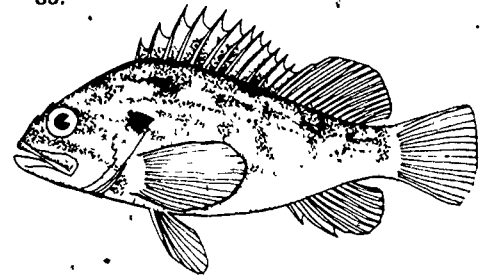
87. CALICO ROCKFISH. *Sebastes dalli* (Eigenmann and Beeson). DISTRIBUTION: Viscaino Bay, Baja California, Mexico, to San Francisco, Calif. SIZE: Usually small. Average weight 1¼ pounds (0.6 kg); maximum length 8 to 10 inches (20-25 cm). COLOR: Greenish yellow with irregular brown bars and blotches on sides forming oblique bars; brown spots and streaks on tail fin. □ Common to southern California, with some taken off central California. Occurs in water 60 to 840 feet (18.3-256.0 m) deep. This species, however, does not appear to be greatly abundant in any one area.

88.



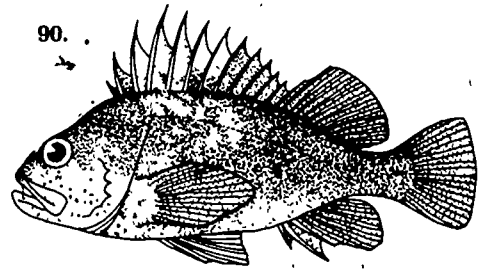
88. WIDOW ROCKFISH. viuva, *Sebastes entomelas* (Jordan, and Gilbert). DISTRIBUTION: Todos Santos Bay, Baja California, Mexico, to Kodiak Island, Alaska. SIZE: Average weight is about 1½ pounds (0.7 kg), and record length is 21 inches (53 cm). COLOR: Uniform dusky brown with a yellow or brassy tinge on sides and sometimes reddish on belly. Young specimens have vague orange streaks. □ Usually taken from below 100 feet (30.5 m) over rocky or rough bottom; however, young are caught near surface. This is an important species in the Monterey Bay area.

89.



89. BROWN ROCKFISH. bolina. *Sebastes auriculatus* Girard. DISTRIBUTION: Central Baja California, Mexico, to southeastern Alaska. SIZE: Length to 21 inches (53 cm). COLOR: Brown with light-brown mottling; dusky pink on fins and lower part of head, dark brown blotch on gill cover. □ Common around wharf pilings and rocky areas in shallow water out to about 180 feet (54.9 m) from central California north, and fairly abundant in San Francisco Bay and Puget Sound.

90.



90. QUILLBACK ROCKFISH. orange-spotted rockfish, yellow-backed rockfish, brown rockfish, speckled rockfish. *Sebastes maliger* (Jordan and Gilbert). DISTRIBUTION: Point Sur, Calif., to Gulf of Alaska. SIZE: Length to 24 inches (61 cm). COLOR: Slate brown with yellow mottling on back and on dorsal fin; orange spotting on ventral surface. □ Common in the northern part of its range where it tends to frequent inlets and shallow-water rockpiles. Fairly abundant in Puget Sound.

#### BROWN ROCKFISHES OF LESS IMPORTANCE TO THE MARINE ANGLER:

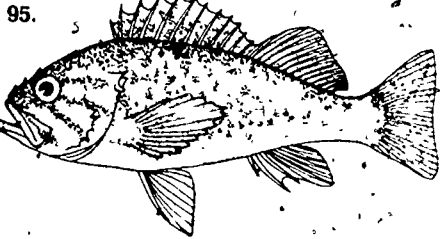
91. SILVERGRAY ROCKFISH. *Sebastes brevispinis* (Bean). DISTRIBUTION: Santa Barbara, Calif., to Bering Sea. SIZE: Length to 28 inches (71 cm). COLOR: Dark gray above, silver gray on sides and white below; fins pinkish.

92. DUSKY ROCKFISH. *Sebastes ciliatus* (Tilesius). DISTRIBUTION: Gualalupe Island, Baja California, Mexico, to Point Conception, Calif. SIZE: Length to 16 inches (41 cm). COLOR: Gray brown with brown spots on dorsal area, becoming light gray below, brown streaks radiating from eye; fins pinkish.

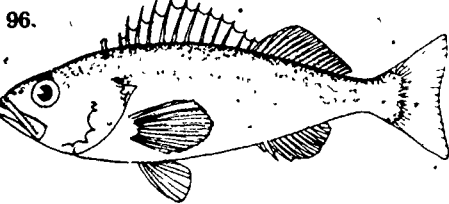
93. GOPHER ROCKFISH. flesh-colored rockfish. *Sebastes carnatus* (Jordan and Gilbert). DISTRIBUTION: San Roque, Baja California, Mexico to Eureka, Calif. SIZE: Length to about 15½ inches (39 cm) COLOR: Olive brown with flesh-colored or whitish spotting and blotches.

94. SQUARESPOT ROCKFISH, smallmouth rockfish, *Sebastes hopkinsi* (Cramer). DISTRIBUTION: Guadalupé Island, Baja California, Mexico, to Farallon Islands, Calif. SIZE: Length to 11¼ inches (29 cm). COLOR: Yellow, brown with dark brown blotches.

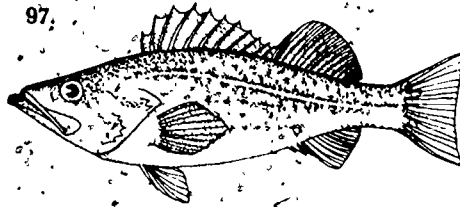
RED ROCKFISHES.



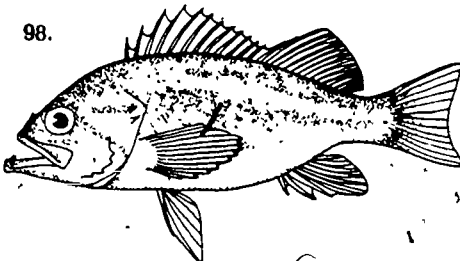
95. VERMILION ROCKFISH, red snapper, rasher, borracho, barrachon, red rock cod, genuine red, *Sebastes miniatus* (Jordan and Gilbert). DISTRIBUTION: San Benito Island, Baja California, Mexico, to Vancouver Island, British Columbia. SIZE: Record length to 30 inches (76 cm); weight reported to 15 pounds (6.8 kg). COLOR: Deep vermilion on back mottled with gray or blackish blotches on sides, orange stripes radiating from eye; fins deep red and on small specimens often faintly edged with black; mouth red. Sometimes confused with the canary rockfish; however, the underside of jaw is rough, not smooth, and there is no large black area on spinous dorsal fin as on smaller specimens of the canary rockfish. One of the larger rockfish species, common to depths of 200 to 600 feet (61.0-182.9 m). The young fish are frequently found near shore. An important contributor to the "rock cod" catch in southern California.



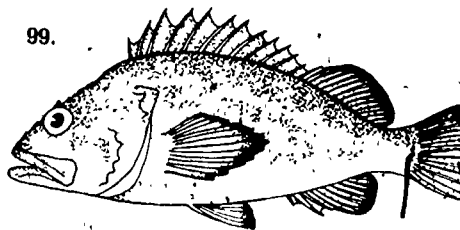
96. CHILIPEPPER, johnnies, johnny cod, *Sebastes goodei* (Eigenmann and Eigenmann). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Vancouver Island, British Columbia. SIZE: Average weight is about 2½ pounds (1.1 kg); maximum length is 22 inches (56 cm). COLOR: Reddish brown to copper above, shading to pink or white below with a distinct red stripe along the lateral line; fins pink. Fishing for this species is best off central and southern California. A deepwater species, it prefers rocky or mud bottom.



97. BOCACCIO, salmon grouper, young are sometimes called "tomcod." *Sebastes paucispinis* Ayres. DISTRIBUTION: Point Blanca, Baja California, Mexico, to Kodiak Island, Alaska. SIZE: Average weight is 3¼ pounds (1.5 kg), the record size reported to be about 3 feet (91 cm) and 21 pounds (9.5 kg). COLOR: Brownish to dusky red above, shading into dull orange red on sides, light pink on belly. Reddish tinge overall; sometimes mottled with brown or black. Usually distinguished from other rockfishes by its greatly projecting lower jaw. A very important commercial and sport species off California. Adults are fished in deep water (to 125 fathoms or 228.6 m), and young bocaccio are frequently found in schools nearshore and are commonly caught by pier anglers.

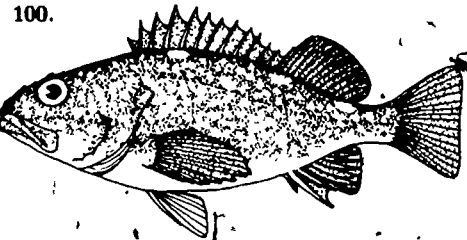


98. CANARY ROCKFISH, orange rockfish, codalargo, yellow snapper, filone, fantail, red rock cod, red snapper, *Sebastes pinniger* (Gill). DISTRIBUTION: Cape Colnett, Baja California, Mexico, to southeastern Alaska. SIZE: Average weight about 1½ pounds (0.7 kg) and a record length to about 30 inches (76 cm). COLOR: Grayish, mottled with orange; fins orange. Sometimes confused with vermilion rockfish. (See description of that species for differences.) Young canary rockfish are sometimes found in shallow water; adults found over banks in deep water. An important contributor to the central and northern California party boat catch.

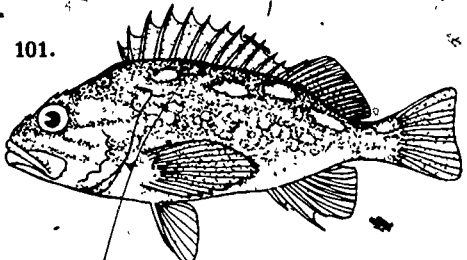


99. YELLOWEYE ROCKFISH, turkey-red rockfish, rasphead rockfish, red snapper, red rockfish, tambor, turkey rock, pot-belly, *Sebastes ruberrimus* (Cramer). DISTRIBUTION: Ensenada, Baja California, Mexico, north to Gulf of Alaska. SIZE: Average weight about 5½ pounds (2.5 kg); known to reach a length of 36 inches (91 cm). COLOR: Bright vermilion above, sometimes blotched with black, fading to

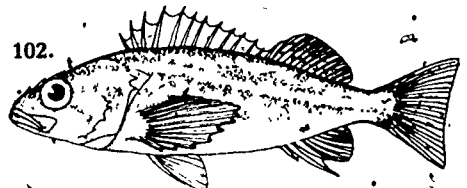
light below; smaller specimens often have a whitish streak along lateral line. All fins except spinous dorsal are usually edged with black; eye bright yellow. One of the larger and more colorful of the rockfish species. Found over shallow and deep reef areas in water 150 to 1,200 feet (45.7-365.8 m) deep. Excellent food species.



100. STARRY ROCKFISH, spotted-rockfish, chinalish, *Sebastes constellatus* (Jordan and Gilbert). DISTRIBUTION: Near Cedros Island, Baja California, Mexico, to San Francisco, Calif. SIZE: Reported to attain a length of 18 inches (46 cm); average weight is about 1½ pounds (0.7 kg). COLOR: Orange red above, shading to yellow on sides and below; profusely covered with small bright-green spots; three to five white blotches on back. A brightly colored species common off southern California, where it is usually taken over deep reefs.



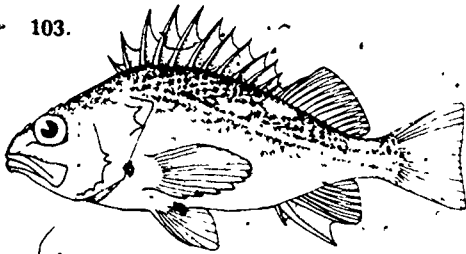
101. ROSY ROCKFISH, corsair, dude, scacciatole, scratch-tail, *Sebastes rosenblati* Girard. DISTRIBUTION: Turtle Bay, Baja California, Mexico, to Puget Sound, Wash. SIZE: A small species, averaging about ½ pound (0.2 kg). Maximum length reported to 12¼ inches (32 cm). COLOR: Yellow, blotched with dark red on back and sides, fading to whitish below; white blotches bordered with purple above lateral line; pinkish fins. Taken in deep water (90 fathoms or 164.6 m); sometimes in shallower water over reefs or rocky areas. A good food species, although small in size.



102. GREENSTRIPED ROCKFISH, strawberry rock cod, reina, serena, *Sebastes elongatus* Ayres. DISTRIBUTION: Cedros Island, Baja California, Mexico, north to Green Island, Alaska. SIZE: Small; average weight about ¾ pound (0.3 kg); length recorded to 15 inches (38 cm). COLOR: Pale red above, white on belly with olive-green irregular stripes on sides joining near tail, black on tip of chin;

pinkish fins; pink lateral line. A deep-water species (200-1,300 feet or 61.0-396.2 m) usually caught from sport boats fishing over rough bottom.

103.



103. GREENSPOTTED ROCKFISH, chucklehead. Santa Maria. *Sebastes chlorostictus* (Jordan and Gilbert) DISTRIBUTION: Cedros Island, Baja California, Mexico, to Copalis Head, Wash. SIZE: Average weight 1½ pounds (0.6 kg); record length reported to be near 20 inches (51 cm). COLOR: Pinkish yellow with irregular green spots; three to five whitish blotches on back bordered with purple red; purple bar across head behind eyes. Adults and young both found over deepwater reef areas.

#### RED ROCKFISHES OF LESS IMPORTANCE TO THE MARINE ANGLER

104. COW ROCKFISH, cowcod, roosterfish, gallo, chefra, cowfish. *Sebastes levis* (Eigenmann and Eigenmann) DISTRIBUTION: Central Baja California, Mexico, to near Eureka, Calif. SIZE: One of the largest of the rockfishes, reaching 37 inches (94 cm) long and a weight of 28½ pounds (12.9 kg). COLOR: Yellowish red with faint vertical bars on adults.

105. STRIPETAILED ROCKFISH, popeye rockfish, oliveback rockfish. *Sebastes saxicola* (Gilbert). DISTRIBUTION: Viscaino Bay, Baja California, Mexico, to southeastern Alaska. SIZE: Length to 15¼ inches (39 cm) COLOR: Tail has green stripes in membranes.

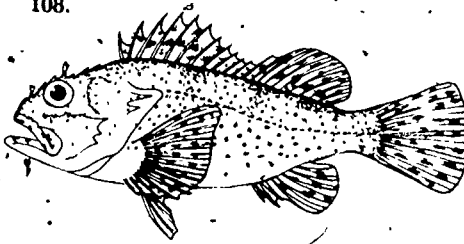
#### STRIPED ROCKFISHES

106. TREEFISH, convictfish, barberpole. *Sebastes serriceps* (Jordan and Gilbert). DISTRIBUTION: Central Baja California, Mexico, to San Francisco, Calif. SIZE: Length reported to 16 inches (41 cm). COLOR: Olive brown above to yellowish below, with five to six vertical black bars on sides reaching to belly. This colorful rockfish, although minor in the sport catch, is common off southern California in relatively shallow water out to about 150 feet (45.7 m) deep.

107. FLAG ROCKFISH, Spanish flag, barberpole, hollywood, convictfish, shoflies, tiger. *Sebastes rubrivinctus* (Jordan and Gilbert). DISTRIBUTION: Cape Colnett, Baja California, Mexico, to San Francisco; records north of San Francisco may be the redbanded rockfish, *Sebastes babcocki*. SIZE: Length to 25 inches (64 cm) COLOR: As name indicates, has four equal red stripes on cream-white ground.

#### SCORPIONFISHES

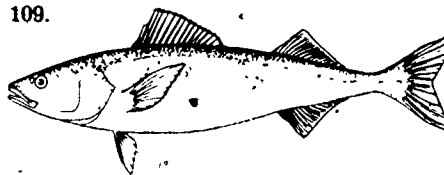
108.



108. CALIFORNIA SCORPIONFISH, sculpin (not related to the sculpin family, Cottidae). *Scorpaena guttata* Girard DISTRIBUTION: Near Magdalena Bay, Baja California, Mexico, to Santa Cruz, Calif. SIZE: Length recorded to about 17 inches (43 cm). COLOR: Brick red to brown; numerous dark spots and blotches on body, head, and fins. An inshore fish common in bays and along shores throughout the year in southern California; however, spring and summer appear to be best fishing season. Although it sometimes occurs over sandy or sandy-mud bottom, this species seems to prefer rocky surroundings and water shallower than 100 feet (<30.5 m) Fish should be handled with care; spines (dorsal, anal, and pelvic) are venomous and can inflict very painful wounds. Experienced anglers handle by inserting thumb in fish's mouth and holding by lower jaw. An excellent food fish.

#### ANOPLOPOMATIDAE: SABLEFISHES

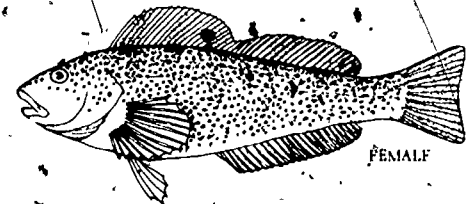
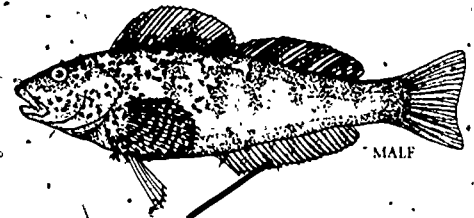
109.



109. SABLEFISH, black cod, mackerel, coal cod, butterfish, blue cod, skil. *Anoplopoma fimbria* (Pallas). DISTRIBUTION: Cedros Island, Baja California, Mexico, to northwestern Alaska, Bering Sea, and Japan. SIZE: Catches of young fish average ¼ to ½ pound (0.1-0.2 kg), while adults may weigh up to 30 pounds (13.6 kg), a record length is reported to 40 inches (102 cm) COLOR: Adults are blackish gray above, shading to lighter gray or white below. Coloration in young is more defined with dark blue or green above, white on belly. Young fish are sometimes found nearshore; however, adults live in deep water up to 400 feet (122 m) or more. They appear to migrate into shallower water during summer. An important species in northern California and off Oregon and Washington, although a small restricted fishery does exist off Newport Bay in southern California. This species is frequently caught in the same area as the Pacific halibut, and is an excellent food fish.

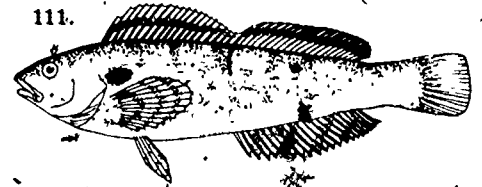
#### HEXAGRAMMIDAE: GREENLINGS

110.



110. KELP GREENLING, greenling sea-trout, kelpfish, rock trout. *Hexagrammos decagrammus* (Pallas). DISTRIBUTION: La Jolla, Calif., to Aleutian Islands, Alaska. SIZE: Length up to 21 inches (53 cm); however, usual catch is about 2 inches (30 cm) long. COLOR: Males are dark gray with sky-blue spots on head and fore part of body. Females are gray brown with uniform reddish or golden-brown spots on head and body. This species is found around rocky shores, reefs, and kelp bed areas. Common along jetties and most abundant off northern California, Oregon, Washington, and Alaska. Excellent food fish.

111.



111. ROCK GREENLING, red greenling, fringed greenling. *Hexagrammos lagocephalus* (Pallas). DISTRIBUTION: Point Conception, Calif., to Alaska and Bering Sea. Abundant off Oregon northward to Alaska. SIZE: Length recorded up to 24 inches (61 cm). Weight of the average catch is about ¼ pound (0.3 kg). COLOR: Highly variable, usually reddish brown with darker mottling; sometimes large red blotches on sides; tail fin tipped with red; dark round spot above pectoral fin; inside of mouth bluish. A shallow-water species, inhabiting much the same areas as the kelp greenling (rocky shores, jetties, etc.).

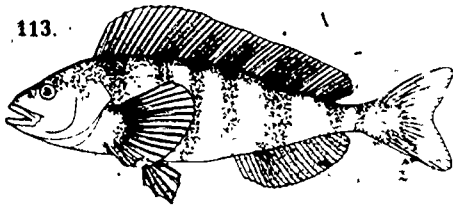
112.



112. BINGCOD, cultus cod, buffalo cod, green cod, ling, boccalao. *Ophiodon elongatus* Girard. DISTRIBUTION: Point San Carlos, Baja California, Mexico, to Kodiak Island, Alaska. SIZE: Average weight is about 8 pounds (3.6 kg); however, they are reported to attain at least 50 inches (127 cm) in length and a weight of

50 pounds (22.7 kg). COLOR Extremely variable with habitat. Ground color may be gray brown, blue to green, or black. Mottlings, spots, and other markings are not specific. □ Common to central California northward; off Oregon, Washington, and southeastern Alaska coasts. A desirable food species. Young lingcod are caught near rocky or kelp bed areas. Adults tend to frequent deeper water up to 350 feet (106.7 m) in areas of rough bottom.

113.



113. ATKA MACKEREL. *Pleurogrammus monopterygius* (Pallas). DISTRIBUTION: Monterey Bay, Calif. to northwestern Alaska, Bering Sea, and Sea of Japan. SIZE: Attains a length of up to 2 feet (61 cm), although the average length is about 12 inches (30 cm). COLOR: Dusky yellow with five blackish vertical bars crossing sides, ventral and anal fins dark. □ An important game species in Alaska, commonly taken near the surf zone, around rocky and kelp bed areas, and in semisheltered water. Often found in large schools.

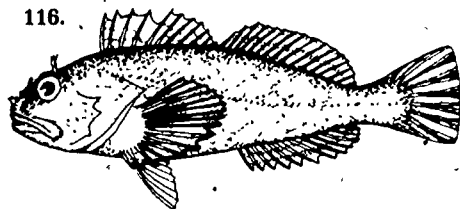
GREENLINGS OF LESS IMPORTANCE TO THE MARINE ANGLER:

114. WHITESPOTTED GREENLING. *Hexagrammos stelleri* Tilesius. DISTRIBUTION: Puget Sound, Wash., to Japan. SIZE: Length to at least 19 inches (48 cm). COLOR: Light brown to greenish, often with reddish tinge, conspicuous white spots on body.

115. PAINTED GREENLING. *Oxylebuis pictus* Gill. DISTRIBUTION: Point San Carlos, Baja California, Mexico, to Strait of Georgia, British Columbia. SIZE: Length to at least 10 inches (25 cm). COLOR: Brown and dark-red bars and mottling over grayish-brown body; flaps on head are red. Rarely taken.

COTTIDAE: SCULPIN'S

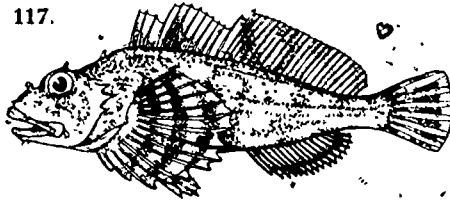
116.



116. CABEZON, bullfish, bullhead; blue cod, bull cod, marbled sculpin. *Scorpaenichthys marmoratus* (Ayres). DISTRIBUTION: Point Abreojos, Baja California, Mexico, to Sitka, Alaska. SIZE: Average weight is about 2 pounds (0.9 kg). Largest fish reported was 39 inches (99 cm) and weighed slightly over 15 pounds (6.8 kg). COLOR: Highly variable from

brown to red, greenish or gray, usually with extensive mottling or blotching. Mouth lining in females usually green, males red. □ The flesh of the cabezon has an excellent flavor, but the roe is reported to be poisonous. This fish is found over many types of bottom, usually rock and sand, in shallow water out to depths of about 250 feet (76.2 m).

117.



117. RED IRISH LORD. *Hemilepidotus hemilepidotus* (Tilesius). DISTRIBUTION: Monterey Bay, Calif., to Sea of Okhotsk. SIZE: Average weight about 1/2 pound (0.2 kg); greatest reported length is 20 inches (51 cm), but is not common over 12 inches (30 cm). COLOR: Dusky to bright red above, becoming lighter below, mottled with brownish red and profusely covered with brownish to black spots. □ Fleshy flaps on snout and just above eyes. A rocky-shore species, common to Oregon, Washington, and Alaska. Ranges from shallow intertidal areas out to 156 feet (47.5 m). Feeds on crabs, barnacles, and mussels.

118.



118. PACIFIC STAGHORN SCULPIN, bullhead, smooth sculpin. *Leptocottus armatus* Girard. DISTRIBUTION: San Quintin Bay, Baja California, Mexico, to Chignik, Alaska. SIZE: Length to 12 inches (30 cm). COLOR: Greenish brown or gray above, white to yellow below. □ This abundant inshore sculpin, although sometimes considered a nuisance to fishermen, is an important baitfish in California. Common in bays and brackish-water areas.

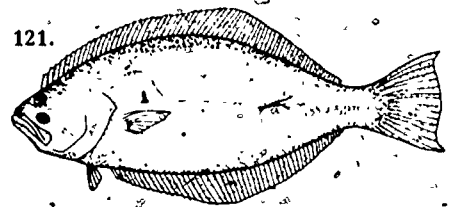
SCULPINS OF LESS IMPORTANCE TO THE MARINE ANGLER:

119. BROWN IRISH LORD, *Hemilepidotus spinosus* (Ayres). DISTRIBUTION: Southern California to Puffin Bay, Alaska. SIZE: Length to 10 inches (25 cm). COLOR: Light to dark brown, with dark mottling.

120. BUFFALO SCULPIN, *Enophrys bison* (Girard). DISTRIBUTION: Monterey Bay, Calif., to Kodiak Island, Alaska. SIZE: Length to 12 inches (30 cm). COLOR: Dark gray green or brown above; purplish bony plates on head and on lateral line.

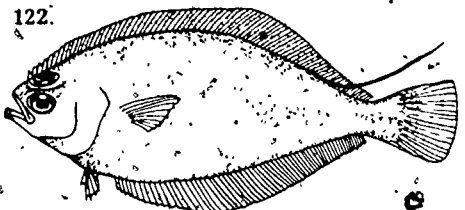
BOTHIDAE: LEFT-EYE FLOUNDERS

121.



121. CALIFORNIA HALIBUT, southern halibut. *Paralichthys californicus* (Ayres). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to British Columbia. SIZE: Record size is about 5 feet (152 cm) and 72 pounds (32.7 kg). Average size 6 to 7 pounds (2.7-3.2 kg); however, pier-caught fish are usually much smaller (called "fly-swatters"). COLOR: Olivaceous black to brown, sometimes with lighter or darker mottling; young often with whitish spots. Blind side is unpigmented. □ Common along sandy shores and nearshore shells in southern California; some also are taken in the Morro Bay, Monterey Bay, and in the San Francisco area. An important species to pier anglers in southern California. Good fishing is sometimes found near live-bait receiver locations. Rarely taken in water over 10 to 15 fathoms (18.3-27.4 m) deep. In southern California common along shore in the spring, frequenting channels, leading into larger bays and just outside the surf zone. From Morro Bay north to San Francisco and Tomales bays, fishing is best in summer and early fall.

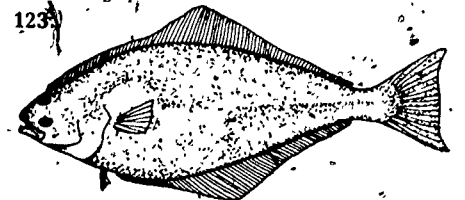
122.



122. PACIFIC SANDDAB, mottled sanddab. *Citharichthys sordidus* (Girard). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to northwestern Alaska and Sea of Japan. SIZE: To 16 inches (41 cm) long; most weigh less than 1/2 pound (0.2 kg). COLOR: Various shades of light brown, sometimes mottled with dull orange, yellow, or black. Blind side is unpigmented. □ Common over sandy or muddy-sand bottoms at depths of 20 to 50 fathoms (36.6-91.4 m). An excellent food fish.

PLEURONECTIDAE: RIGHT-EYED FLOUNDERS

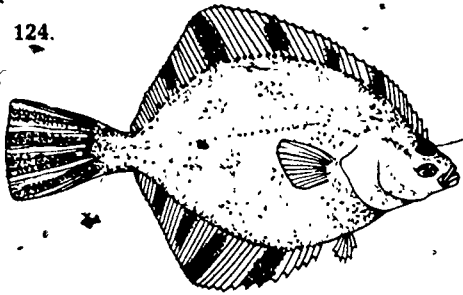
123.



123. PACIFIC HALIBUT, northern halibut. *Hippoglossus stenolepis* Schmidt. DISTRIBUTION: Santa Rosa Island, Calif., to the Bering Sea and Sea of Japan. SIZE:

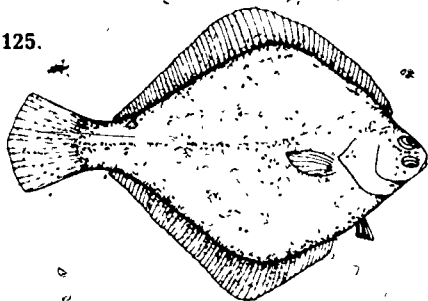
Average weight of the sport catch off the Washington, Oregon, and northern California coasts is 5 pounds (2.3 kg), but larger fish are common in Alaska. Females recorded to 495 pounds (224.5 kg), males to 123 pounds (55.8 kg). Length up to 8½ feet (259 cm). COLOR: Uniform dark brown to black, sometimes with paler blotches and fine mottling. Blind side is unpigmented. Commonly caught off Oregon, Washington, and Alaska; not usually taken south of extreme northern California. Fished in moderately deep water, 20 to 100 fathoms (36.6-182.9 m). Sometimes appears in relatively shallow water during summer. An excellent food species.

124.



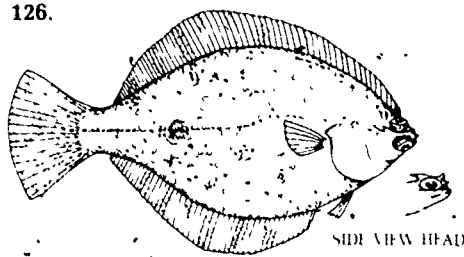
124 STARRY FLOUNDER, diamondback, *Platichthys stellatus* (Pallas). DISTRIBUTION: Santa Barbara, Calif. to Arctic Alaska and Sea of Japan. An abundant species from central California north to Alaska. SIZE: Weight recorded up to 20 pounds (9.1 kg) and a length of 3 feet (91 cm). However, the average sport-caught fish is about 1¼ pounds (0.6 kg). COLOR: Mottled dark brown with alternating white, light orange and black bands on dorsal and anal fins. Blind side is unpigmented. One of the few flounder species that may ordinarily have the eyes and color on either side. One of the most important sport-caught flatfishes along the entire Pacific coast lives in shallow water over sandy or mud bottom. Sometimes caught at depths of up to 70 fathoms (128.0 m). It is common in bays, and frequently migrates into tidewater areas and up rivers. Has a very rough (grindstone) skin.

125.



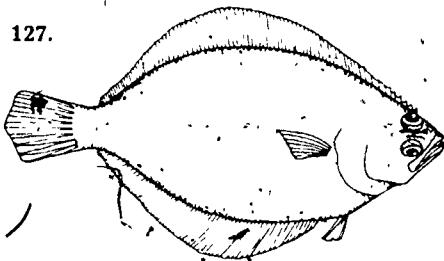
125. DIAMOND TURBOT, *Hypsopsetta guttulata* (Girard). DISTRIBUTION: Gulf of California and Magdalena Bay, Baja California, Mexico, to Cape Mendocino, Calif. SIZE: Record length is about 18 inches (46 cm), average weight of the sport catch is about 1½ pounds (0.6 kg). COLOR: Gray to brown, mottled with blue spots. Blind side is unpigmented. Commonly found in bays and sloughs over mud and sand bottom. Usually caught in water less than 500 feet (152.4 m) deep. Best fishing is in southern California locations as Newport and Mission where it is caught year-round.

126.



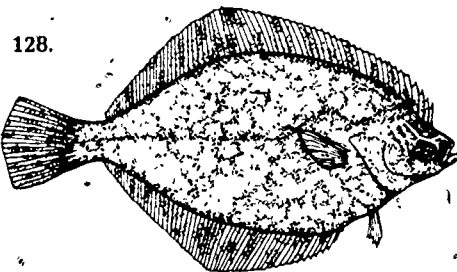
126 HORNHEAD TURBOT, *Pleuronichthys verticalis* Jordan and Gilbert. DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Point Reyes, Calif. SIZE: Length recorded to 14½ inches (37 cm), average weight about ¾ to 1 pound (0.3-0.5 kg). COLOR: Brown with darker mottlings and scattered pale blotches. Common to southern California in bays, sloughs, and other nearshore areas. Similar in habitat preference to the diamond turbot.

127.



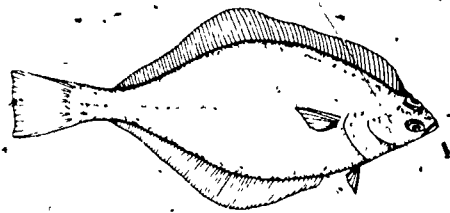
127 PETRALE SOLE, roundnose flounder, *Eopsetta jordanii* (Lockington). DISTRIBUTION: Coronado Islands, Baja California, Mexico, to northern Gulf of Alaska. SIZE: Average weight is about 1¾ pounds (0.8 kg); maximum recorded length is 27½ inches (70 cm). COLOR: Uniform dark to light brown, sometimes with paler blotches. Blind side is unpigmented. An important and desirable food fish caught off central California, Oregon, and Washington coasts. It is commonly found on sand and mud bottoms, usually in depths of 60 feet (18.3 m) or more, during the summer, migrating to deeper water (up to 1,200 feet or 365.8 m) during the winter.

128.



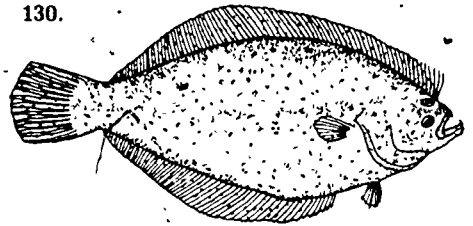
128. ROCK SOLE, broadfin flounder, *Lepidopsetta bilineata* (Ayres). DISTRIBUTION: Southern California to the Bering Sea and Sea of Japan. SIZE: Record length is about 22½ inches (57 cm), average weight is about 1½ pounds (0.6 kg). COLOR: Dark to light brown with lighter or darker yellow or red mottlings and spots, fins with dark blotches or bars. Blind side is unpigmented. Known to range to a depth of about 70 fathoms (128 m), but is frequently caught in shallow water over sandy or gravelly bottom, and sometimes near eel grass beds. Most abundant from central California north into Puget Sound.

129.



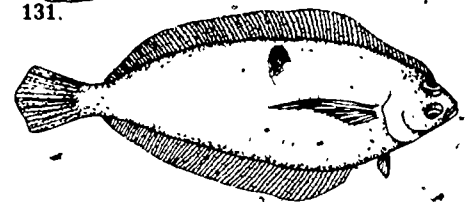
129. ENGLISH SOLE, lemon sole, pointed-nose flounder, *Parophrys vetulus* Girard. DISTRIBUTION: Central Baja California, Mexico, to northwestern Alaska. SIZE: Average weight about 1 pound (0.5 kg); record length is reported to be 24 inches (61 cm). COLOR: Brown, with fins edged with darker brown to black. Blind side is unpigmented. An important species from central California north. Migratory, found in bays and estuaries out to about 200 fathoms (365.8 m). Caught nearshore during the summer, and, although sometimes taken from piers and off jetties at this season of the year, more are landed by skiff and party boat anglers than by any other method. A good food fish; however, the flesh of inshore specimens sometimes has an iodine flavor.

130.



130. SAND SOLE, fringe flounder, *Psetichthys melanostictus* Girard. DISTRIBUTION: Point Mugu, Calif., to northwestern Gulf of Alaska. SIZE: Average weight ½ pound (0.2 kg); record length reported to be 21 inches (53 cm). COLOR: Dark gray to brown, speckled with dark brown or black spots. This inshore species is usually caught along sandy shores, around jetties, and in estuaries. The young are sometimes caught around rocky areas in summer. Migrates to deep water in the winter. Common north of Point Conception, Calif.

131.



131. REX SOLE, longfin sole, *Glyptocephalus zachirus* Lockington. DISTRIBUTION: San Diego, Calif. to the Bering Sea. SIZE: Average weight is about ½ pound (0.2 kg); maximum length is reported to be about 23¼ inches (59 cm). COLOR: Uniform light brown on eyed side; fins darker, pectoral fins black. Blind side is unpigmented. A deepwater species, usually caught over sand and sand-mud bottom. Similar in habitat requirements to the petrale sole and Pacific sanddab. A highly desirable food species.

FLATFISHES OF LESS IMPORTANCE  
TO THE MARINE ANGLER:

132. CURLFIN SOLE. *Pleuronichthys decurrens* Jordan and Gilbert. DISTRIBUTION: San Quintin Bay, Baja California, Mexico, to northwestern Alaska. SIZE: Length to 14½ inches (37 cm). COLOR: Reddish brown with darker brown or gray mottling above.

133. SPOTTED TURBOT. *Pleuronichthys ritteri* Starks and Morris. DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Point Conception, Calif. SIZE: Length to 11½ inches (29 cm). COLOR: Brown to gray with light speckling, usually with three dark spots.

134. C-O SOLE. *Pleuronichthys coenosus* Girard. DISTRIBUTION: Cape Colnett, Baja California, Mexico, to southeastern Alaska. SIZE: Length to about 14 inches (36 cm). COLOR: Dark brown above mottled with light brown.

135. BUTTER SOLE. *Isopsetta isolepis* (Lockington). DISTRIBUTION: Southern California to Alaska and Bering Sea, rare south of Point Conception, Calif. SIZE: Length to 21¾ inches (55 cm). COLOR: Dark to light brown or gray with light mottling, sometimes with yellow-green spots; fins edged with yellow.

136. SLENDER SOLE. *Lyopsetta exilis* (Jordan and Gilbert). DISTRIBUTION: Cedros Islands, Baja California, Mexico, to Alek Canyon, Alaska. SIZE: Length to 13 inches (33 cm). COLOR: Uniform light olive brown.

137. DOVER SOLE. *Microstomus pacificus* (Lockington). DISTRIBUTION: San Cristobal Bay, Baja California, Mexico, to Bering Sea. SIZE: Length to 30 inches (76 cm). COLOR: Uniform gray brown; fins black.

OTHER MINOR MARINE GAME FISHES:

A brief listing is given below of some additional families and species of fishes which now do not contribute significantly to the sport catch, but sometimes are taken by Pacific coast anglers. This listing is not complete since marine anglers capture many species during the course of the year that are not listed here, but it reviews some of the more commonly caught minor species.

SCYLIORHINIDAE: GAT SHARKS

138 SWELL SHARK. *Cephaloscyllium ventriosum* (Garman). DISTRIBUTION: Chile to Monterey, Calif. Not common north of Point Conception, Calif.

SQUALIDAE: DOGFISH SHARKS

139 SPINY DOGFISH. *Squalus acanthias* Linnaeus. DISTRIBUTION: Temperate and subtropical Atlantic and Pacific oceans; in the eastern Pacific, in Chile, southern California to Alaska, and to Japan.

RAJIDAE: SKATES

140 BIG SKATE. *Raja binoculata* Girard. DISTRIBUTION: San Quintin Bay, Baja California, Mexico, to northwestern Alaska and Bering Sea. Not common south of Point Conception, Calif.

141. CALIFORNIA SKATE. *Raja mornata* Jordan and Gilbert. DISTRIBUTION: Turtle Bay, Baja California, Mexico, to the Strait of Juan de Fuca.

142. LONGNOSE SKATE. *Raja rhina* Jordan and Gilbert. DISTRIBUTION: Point Loma, Calif., to Southern Alaska.

DASYATIDAE: STINGRAYS

143. ROUND STINGRAY. *Urolophus halleri* Cooper. DISTRIBUTION: Panama Bay, Panama, to Humboldt Bay, Calif. Rare north of Point Conception, Calif.

MURAENIDAE: MORAYS

144. CALIFORNIA MORAY. *Gymnothorax mordax* (Ayres). DISTRIBUTION: Magdalena Bay, Baja California, Mexico, to Point Conception, Calif.

CLUPEIDAE: HERRINGS

145. PACIFIC HERRING. *Clupea harengus pallasi* Valenciennes. DISTRIBUTION: Northern Baja California, Mexico, to northern Eurasia, Bering Sea, and Japan.

146. PACIFIC SARDINE. *Sardinops sagax caeruleus* (Jenyns). DISTRIBUTION: Guaymas, Gulf of California, Mexico, to Kamchatka Peninsula, USSR.

ENGRAULIDAE: ANCHOVIES

147. NORTHERN ANCHOVY. *Engraulis mordax* Girard. DISTRIBUTION: La Paz, Baja California, Mexico, to Queen Charlotte Island, British Columbia.

SYNODONTIDAE: LIZARDFISHES

148. CALIFORNIA LIZARDFISH. *Synodus lucioceps* (Ayres). DISTRIBUTION: Guaymas, Gulf of California, Mexico, to San Francisco, Calif. Uncommon north of Point Conception, Calif.

BATRACHOIDIDAE: TOADFISHES

149. PLAINFIN MIDSHIPMAN. northern midshipman, *Porichthys notatus* Girard. DISTRIBUTION: Gorda Bank, Gulf of California, Mexico, to Sitka, Alaska.

POMADASYIDAE: GRUNTS

150. SALEMMA. bigeye bass. *Xenistius californiensis* (Steindachner). DISTRIBUTION: Peru north to Monterey Bay, Calif. Rare north of Point Conception, Calif.

POMACENTRIDAE: DAMSELFISHES

151. BLACKSMITH. *Chromis punctipinnis* (Cooper). DISTRIBUTION: Point San Pablo, Baja California, Mexico, to Monterey, Calif.

CLINIDAE: CLINIDS

152. GIANT KELPFISH. *Heterostichus rostratus* Girard. DISTRIBUTION: Cape San Lucas, Baja California, Mexico, to British Columbia.

153. ONESpot FRINGEHEAD. *Neoclinus uninotatus* Hubbs. DISTRIBUTION: San Diego Bay to Bodega Bay, Calif.



# Marine Game Fishes of the Pacific Islands

The following pages describe some of the major game fishes taken in marine and brackish waters of Hawaii, American Samoa, and Guam. It is indeed unfortunate that these tropical fishes could not be reproduced in color, for they are among the most beautiful in the world.

The local fish names are given first, since it is by these names that they are known in the tropical Pacific. Usually the Hawaiian name is given first, identified by the symbol (H), followed by its equivalent in Samoan (S) or Guamanian (G), and then by its English equivalent if one exists. The authorized scientific name and the name of the person who originally

described the species are given last.

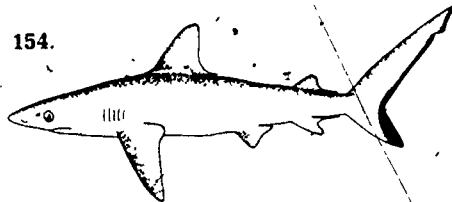
For those who wish to pronounce the Hawaiian names correctly, it is relatively simple. There are only 12 letters in the alphabet and the five vowels, A, E, I, O, U, are pronounced a as in father, e as in vein, i as in prep, o as in own, and u as in book. Each vowel is pronounced. For instance, aholehole is pronounced ah-leh-ho-leh, with the accent on the second and fourth syllable. The consonants are pronounced as in English, except that W, especially when after the first syllable, has the sound of V as in valuable. For example aweoweo is pronounced ah-veh-oh-veh-oh. The apostrophe or ha'mza, as

in aweoweo and in other Hawaiian fish names, indicates elision of one or more letters. It does not indicate accent, but a break in sound between the letters it separates. In writing Hawaiian names it is important that these marks be used, since they are an essential part of the word.

Marine anglers wishing to make a closer species identification of their catch should read Handbook of Hawaiian Fishes by Gosline and Brock (1960, University Press, Honolulu). This reference is the best available covering most of the species. Other references for specific families and genera will be found in the section on Reference.

## CARCHARHINIDAE: REQUIEM SHARKS

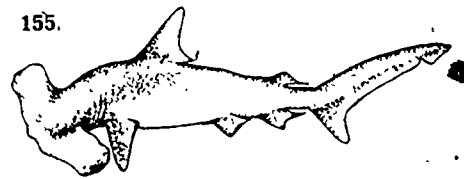
154.



154. MANO (H), mahe (S), tanifa (S), gray shark, sand shark, whaler, *Carcharhinus* spp. DISTRIBUTION: Members of this genus are widely distributed in tropical and temperate seas worldwide. SIZE: The species above, the gray reef shark, *C. amblyrhynchos* (Bleeker), reaches a length of about 8 feet (244 cm), other Pacific members of this genus are reported to reach up to 16 feet (488 cm). COLOR: Differs with species, generally grayish to brownish, fading to lighter below. Most "typical" sharks belong to this group, many are shore or reef-inhabiting species, others also occur far out at sea. A few are considered potentially dangerous to humans and attain considerable size. Although sometimes considered a nuisance to anglers, sharks are rapidly growing in popularity as game fishes. The gray reef shark is especially abundant around American Samoa. It also occurs around Hawaii and Guam, but is not sought by anglers. Sharks are usually caught by handlining at anchor or adrift and by trolling over channel areas between reefs and over offshore ledges.

## SPHYRNIDAE: HAMMERHEAD SHARKS

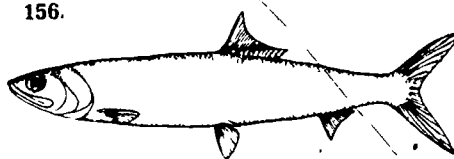
155.



155. MANO KIHIKIHI (H), kiluus (G), mata-i-taliga (S), scalloped hammerhead (shark), *Sphyrna lewini* (Griffith and Smith). DISTRIBUTION: Tropical and temperate Atlantic, Pacific, and Indian oceans. SIZE: Reaches a length of over 10 feet (305 cm). COLOR: Light gray above and white below; black on the ventral surfaces of the pectoral fins. This shark occurs inshore as well as offshore, and although sometimes found in large aggregations, it is usually solitary. Taken by anglers in Hawaii and American Samoa; only rarely taken in Guam. Caught by trolling or drifting with whole or cut baits. Rarely eaten, sometimes used as bait.

## ELOPIDAE: TARPONS, LADYFISHES

156.

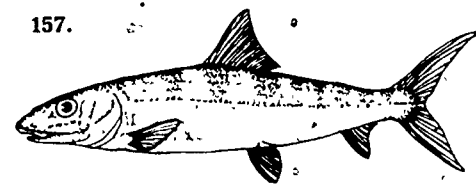


156. AWAAWA (H), awa'aua (H), pake'awa (H), ladyfish, tenpounder, *Elops hawaiiensis* Regan. DISTRIBUTION: Tropical Pacific. SIZE: Up to about 24 inches (61 cm), usually about 12 to 15 inches (30-38 cm). COLOR: Bright silvery, with a blue-green hue on the dorsal area. The awaawa is primarily an inshore fish, often found in bays and harbors and along sandy shores. In Hawaii it is

known to enter streams and rivers and is commonly reared in fish ponds. This species rarely occurs in American Samoa and Guam. Taken by hook and line and by gill net throughout the Hawaiian Islands. Excellent light-tackle quarry that fights gamely and leaps repeatedly when hooked. The awa'aua is edible, but the flesh contains many fine bones. Widely used by the Chinese in making fish cakes.

## ALBULIDAE: BONEFISHES

157.

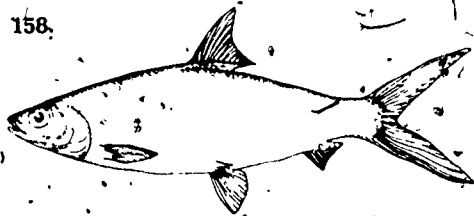


157. 'O'IO (H), bonafish, *Albula vulpes* (Linnaeus). DISTRIBUTION: Worldwide in tropical and subtropical oceans. SIZE: All-tackle record (Zululand, South Africa) is 19 pounds (8.6 kg) and 39 5/8 inches (100.7 cm) long. In the Pacific Ocean (Kauai, Hawaii) the record is 18 pounds 2 ounces (8.2 kg), and a length of 3 feet 5 1/2 inches (105.4 cm). Hawaiian bonefish are usually about 15 to 18 inches (38-46 cm) long. COLOR: Bright iridescent silver. The 'o'io is a schooling fish that feeds along sandy bottom, usually over sand patches or channels between coral formations in the reef. Sometimes enters the surge zone along beaches. Although caught throughout the year in Hawaii, the season usually begins in December when the fish come fairly close to shore to spawn, and fishing is usually good through April. Exceptionally large fish have been taken from waters off Kauai, Oahu, and Maui. This species is uncommon in American Samoa and does not occur in Guam. Caught surf casting and bottomfishing with cut bait; some are taken with gill nets. Like the awaawa, the flesh of the bonefish is

palatable, but contains numerous, fine bones. It is, however, a Hawaiian favorite for making fish cakes and (poki (raw, spiced).

#### CHANIDAE: MILKFISHES

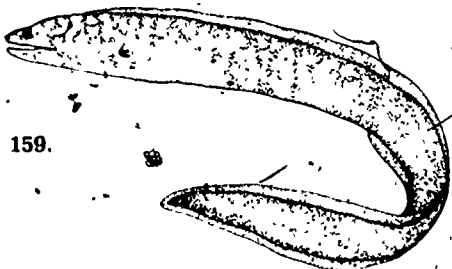
158.



158. AWA (H), agaa (G), milkfish, *Chanos chanos* (Forskål). **DISTRIBUTION.** Throughout the tropical Indo-Pacific. **SIZE:** Up to 3 feet (91 cm) long; most caught are around 18 to 24 inches (46-61 cm). **COLOR.** Silvery. The awa is a schooling surface-feeding fish, common to brackish-water areas, bays, and inlets in the Hawaiian Islands. Common in American Samoa, but very rarely fished for; uncommon in Guam. Hawaiian anglers catch awa with hook and line using bread or algae for bait. Like the awaawa and the o'io, this fish is a scrappy fighter, often leaping from the water when hooked. Also taken with gill nets; young fish are sometimes taken with cast nets. Considered a fine food fish; some are raised commercially in fish ponds in Hawaii.

#### MURAENIDAE: MORAY EELS

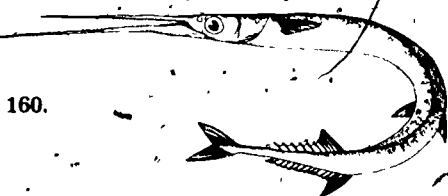
159.



159. PUHĪ (H), puhī-paka (H), pusi (S), titugi (G), moray, *Gymnothorax* spp. **DISTRIBUTION.** Tropical Pacific Ocean. **SIZE.** Hawaiian morays range up to 5 or 6 feet (152-183 cm) long but most are under 2 feet (61 cm). This group contains all puhī or morays most commonly seen in Hawaiian waters and in the market. The fish illustrated above, *G. flavimarginatus* (Rüppell), the puhī-paka, is one of Hawaii's larger eels and relatively common. Morays are pugnacious predators and have large fanglike teeth. Some are known to bite viciously—but usually only when provoked. Most of the time they remain deep in crevices and holes in reefs and rocky areas where they lie in wait for passing or injured prey. Most are speared, some are taken incidentally by hook and line and in traps. Commonly caught for food in American Samoa, but not sought after in Guam where the flesh is reported to be occasionally poisonous. Sometimes used as bait in Hawaii.

#### BELONIDAE: NEEDLEFISHES

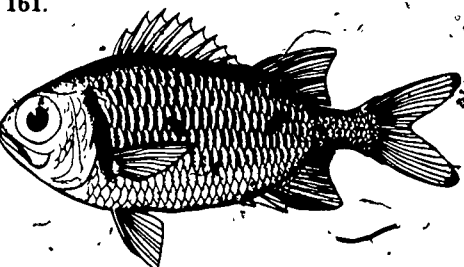
160.



160. AHA'AHA (H), ise (S), keeltail needlefish, needlefish, *Platybelone argalus* (Lesueur). **DISTRIBUTION.** Worldwide. **SIZE:** Attains a length of about 15 inches (38 cm). **COLOR.** Blue green, on back, fading to silvery below. A near- and offshore schooling species, often seen skittering or gliding over the water's surface. Common in Hawaii and American Samoa, although not sought after by Samoan fishermen. In Guam, a much larger species of needlefish called "pulus" or houndfish, *Tylosurus crocodilus* (Peron and Lesueur), is one of the more common fishes taken with spinning gear. In general, needlefish are taken by pole and line using artificial lures or live bait. The greenish flesh of the 'aha'aha is reported to have a very good flavor.

#### HOLOCENTRIDAE: SQUIRRELFISHES

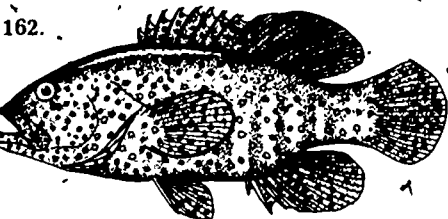
161.



161. MENPACHI (H), 'u'u (H), malau (S), sasag (G), squirrelfish, *Myripristis berndti* Jordan and Evermann and *M. amoena* (Castelnau). **DISTRIBUTION.** Tropical Pacific Ocean. **SIZE:** Up to 14 inches (36 cm), averages 7 to 9 inches (18-23 cm). **COLOR.** Bright red. These two species of menpachi are common inshore reef fishes in Hawaii. Both are nocturnal and congregate in caves and deep crevices during the day, venturing out over the reef at night to feed. Usually taken with spears; also with gill nets and hooks and lines and in traps. Fished for mostly at night. Menpachi are highly esteemed as food fish and subsequently bring a high price at Hawaiian markets.

#### SERRANIDAE: SEA BASSES

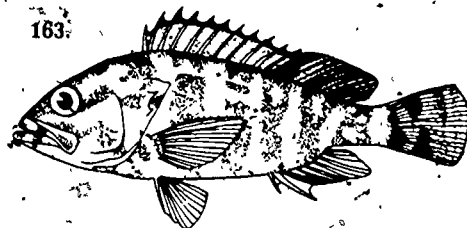
162.



162. ROI (H), moana (S), gadao (G), blue spotted grouper, *Cephalopholis argus* Bloch and Schneider. **DISTRIBUTION:** Tropical Indo-Pacific. **SIZE:** Reaches about

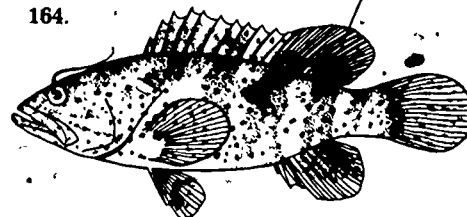
20 inches (51 cm) long. **COLOR.** Purple brown with light-blue spots. Pale bars evident towards tail region as indicated. A very common bottomfish in American Samoa, found over reefs and rocky areas at about 10 to 40 fathoms (18.3-73.2 m). ROI also occurs in Guam and in 1956 was introduced to the Hawaiian Islands where, it has now become established around most of the larger islands. Caught handlining on the bottom or spearing. Like most groupers, when hooked this fish usually attempts to get into holes or crevices, so it is wise to keep the fish's head up and the line taut.

163.



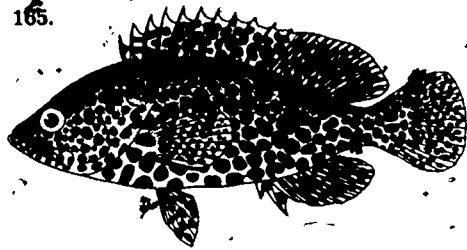
163. GADAO (G), gatala (S), *Epinephelus fuscicatus* (Forskål). **DISTRIBUTION:** Tropical Indo-Pacific. **SIZE:** Reported to reach about 14 inches (36 cm). **COLOR:** Red with dusky crossbars which tend to fade with age. Distinguished by the black margin on the spiny dorsal fin. A common grouper caught by spinning gear and spears around Guam and American Samoa. Introduced to Hawaii in 1956 from the Marshall Islands, but did not become established. A good food fish.

164.



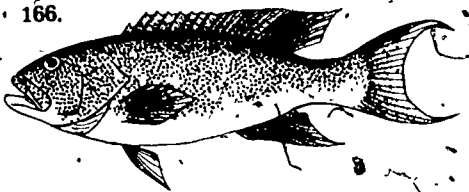
164. ATA'ATA (S), *Epinephelus tauvina* (Forskål). **DISTRIBUTION:** Tropical Indo-Pacific. **SIZE:** Up to 500 pounds (226.8 kg) in weight and averages anywhere from 100 to 400 pounds (45.4-181.4 kg). **COLOR:** Young fish are tan with irregular brown bars and red mottling and spotting; large specimens are uniform dark brown. This large Samoan grouper is common over rocky areas in water from 50' to 500 feet (15.2 to 152.4 m) deep, and is taken by handline. A large unidentified grouper caught by Guam handliners might be closely related to the Samoan species, although its positive identification has yet to be determined. This Guam grouper is reported to reach over 80 pounds (36.3 kg) and is excellent eating. When fresh, it has several broad faint vertical bars on the body which fade soon after death to a uniform dark brown.

165.



165. GATALA (S). gadao (G). grouper. *Epinephelus merra* Bloch. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 18 inches (46 cm). COLOR: Yellowish, white with dark orange-brown spots; more yellow in the dorsal region. A very abundant inshore reef-inhabiting grouper in American Samoa and Guam, and one of the two most common groupers taken spearing and with spinning gear over Guam's shallow reefs. Once introduced to Hawaii from Tahiti, but did not become successfully established. Food value considered good.

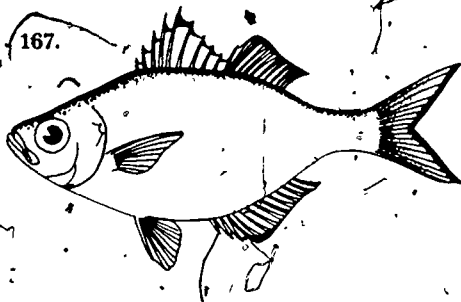
166.



166. GATALA (S). fa manaia (S). gadao (G). grouper. *Variola louti* (Forskål). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Reported to reach 3 feet (91 cm) long. COLOR: Yellowish brown or orange, everywhere spotted with small reddish or pinkish spots; with those toward the back margined with a purple or blue line. Pectoral and tail fins bright yellow; eye red, underside of head and body red. This brilliantly colored grouper occurs both in American Samoa and Guam, and is very common around American Samoa over reef and ledge areas at about 10 to 40 fathoms (18.3-73.2 m). Young fish frequent shallow-water reefs and sometimes enter deep tide pools in American Samoa, in Guam the young of this species appear to prefer deeper water. In Samoa they are caught handlining and sometimes trolling, in Guam most are taken by spear fishermen. Considered a fine food fish.

#### KUHLIIDAE: AHOLEHOLES

167.



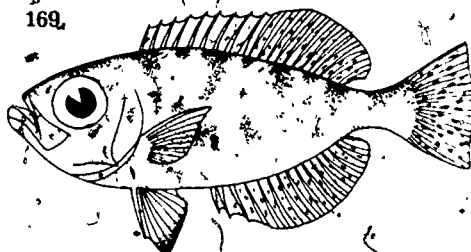
167. AHOLEHOLE (H). mountain bass, silver perch. *Kuhlia sandvicensis* (Steindachner). DISTRIBUTION: Hawaiian Islands. SIZE: Up to 12 inches (30 cm); usually from 4 to 6 inches (10-15 cm). COLOR: Silvery; fins often dusky tipped. An abundant inshore fish found in many along the shoreline, around pilings

in harbors and bays, or in large schools over reefs. The young are numerous in tide pools while adults inhabit deeper water, but generally no deeper than 20 feet (6.1 m). Aholehole is usually nocturnal and hides in crevices during the day and emerges at night to feed. Taken with cast nets, by hook and line, and by spearing in crevices and holes in the reef. Lights are sometimes used to attract them at night. An excellent food fish.

168. UMATAN (G). sasele (S). *Kuhlia rupestris* (Cuvier and Valenciennes). DISTRIBUTION: Widespread in tropical central Indo-Pacific. SIZE: In Guam this fish may reach 14 to 16 inches (36-41 cm) and up to 1½ to 2 pounds (0.7-0.9 kg), usually runs about 8 to 9 inches (20-23 cm) and about ¼ or ½ pound (<0.3 kg). This close relative of the aholehole occurs in American Samoa and is very common to most streams and rivers of Guam. Similar in habits and appearance to *K. sandvicensis*, but seems to have a greater affinity to fresh water. Young umatan are found close to mouths of tributaries while large adults are usually found farther upstream in fresh water. Taken with nets and spears and with light spinning tackle using live bait, artificial flies, and small poppers. An excellent food fish.

#### PRIACANTHIDAE: BIGEYES

169.

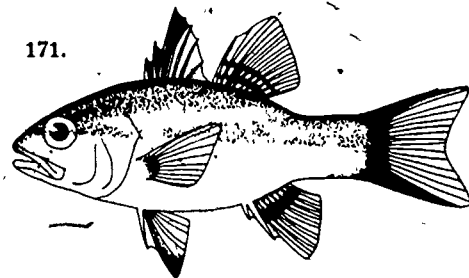


169. AWEOWEO (H). mamagas (G). mata-pua (S). red bigeye. *Priacanthus cruentatus* (Lacepede). DISTRIBUTION: Circumtropical. SIZE: Up to about 12 inches (30 cm), averages about 6 to 8 inches (15-20 cm). COLOR: Variable; known to change its coloration rapidly from deep red to silvery, or to a mottled silvery pink and red; fins are often speckled with black. In Hawaii and American Samoa this nocturnal reef fish is found in shallow reefs and in bays and harbors where it feeds primarily on free-swimming invertebrates and small fishes. It is uncommon in Guam. In Hawaii the aweoweo is usually taken during the evening and moonlit nights are considered best. Occasionally great schools of juvenile fish appear nearshore at night, and it was once thought by early Hawaiian islanders that the appearance of these immense schools signified the imminent death of royalty. Taken pole fishing, handlining, and spearing. Opinions about the food value of this fish vary from fair to excellent.

170. ALALAU (H). *Priacanthus alalau* Jordan and E. S. P. This is another member of the bigeye family taken by Hawaiian fishermen. It does not occur as close to shore as the aweoweo, usually found in water deeper than 50 feet (over 15.2 m). SIZE: Reaches up to 14 inches (36 cm) long.

#### APOGONIDAE: CARDINALFISHES

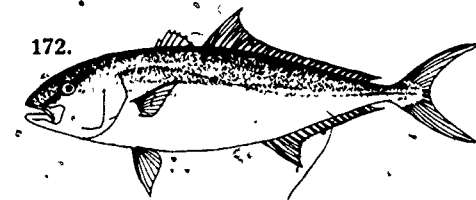
171.



171. UPAPALU (H). lansi (G). fo (S). moonlight fish, moonlight Annie. *Apogon menesemus* Jenkins and *A. kallopterus* Bleeker. DISTRIBUTION: Tropical Pacific Ocean. SIZE: Up to 9 inches (23 cm). COLOR: Both purplish with black markings. The fish pictured is *A. menesemus*. These two small inshore reef fishes are very common in the Pacific Islands. Upalulu are nocturnal and feed on small crustaceans. Males carry eggs in their mouths for incubation. In Hawaii these two cardinalfishes are often taken pole fishing on moonlit nights over the reefs. Food value is considered good.

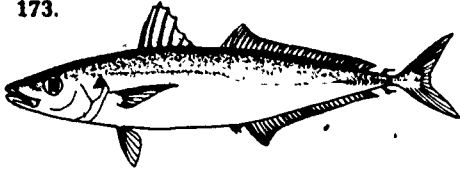
#### CARANGIDAE: JACKS AND POMPANOS

172.



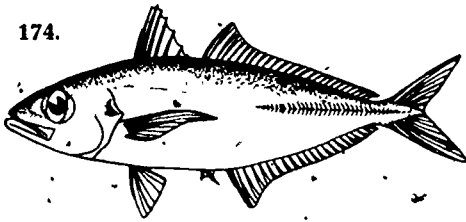
172. KAHALA (H). greater amberjack. *Seriola dumerilii* (Risso). Two other amberjacks, *Seriola rivoliana*, and *S. quinqueradiata*, also occur in Hawaiian waters and may enter the sport catch. DISTRIBUTION: Circumtropical. SIZE: All-tackle record (Bermuda) is 149 pounds (67.6 kg) with a length of 71 inches (180.3 cm). Most caught in Hawaii are around 2 feet (61 cm) long and about 8 to 10 pounds (3.6-4.5 kg). COLOR: Light metallic brown with a purplish tinge. When alive, a faint lemon-yellow band extends from the head to the base of tail. The kahala inhabits Hawaii's deeper coastal waters between 40 to 100 fathoms (73.2-182.9 m), living near the bottom. The most productive fishing areas seem to be over deep-sea ledges or drop offs. This fish also occurs in Samoa, and similar species, if not the same, occur in Guam. Usually caught handlining offshore, although on rare occasions this fish may come close to shore within casting reach of shore anglers. Small fish are considered good eating, large fish only fair.

173.



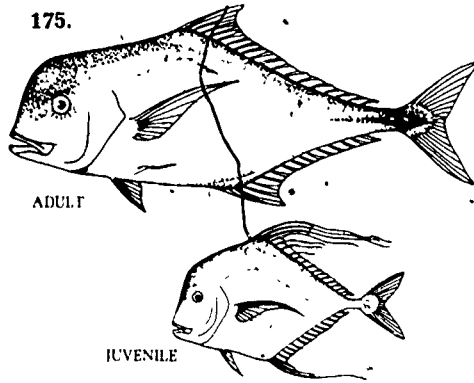
173. 'OPELU (H), 'opelu-mama (H), achuman (G), mackerel scad, *Decapterus pinnulatus* (Eydoux and Souleyet). This fish is very similar to the Atlantic mackerel scad, *Decapterus macarellus* (Cuvier). **DISTRIBUTION:** Tropical Pacific Ocean. **SIZE:** Up to 20 inches (51 cm) in length; usually less than 10 inches (25 cm). **COLOR:** Bluish or greenish yellow above, silvery below. □ Found in schools near the surface and in mid-water and common to the coastal waters of Hawaii and Samoa; rarely taken in Guam. In Hawaii, the young under 5 inches (<13 cm) long school far out at sea where they often become the prey of aku or skipjack tuna. Caught by hook and line at night and with a special 'opelu lift net during the day. An excellent food fish, also used as bait and live chum for large tuna and marlin.

174.



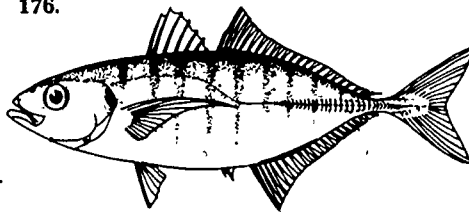
174. AKULE (H), aji (H), atule (S), atulau (G), hitting (G), mackerel bigeye scad, *Selar crumenophthalmus* (Bloch). In Hawaii, fish up to 5 inches (13 cm) are called "hahalalu" or "halalu"; those about 5 to 7 inches (13-18 cm) called "ma'au", and those over 7 inches called akule. **DISTRIBUTION:** Tropical Pacific. **SIZE:** Up to 15 inches (38 cm); average caught by anglers is under 8 inches (20 cm). **COLOR:** Olive green on dorsal area, golden or silvery on sides and head; tail fin yellow and a faint spot on gill cover. □ The akule is a schooling fish inhabiting the mid- or surface waters along the coasts of all the islands, the young often coming close to shore into protected bays and harbors. In Hawaii, young fish or "halalu" offer great sport to shore anglers fishing with light spinning tackle and most are caught from about July to December. Adult fish are found offshore where they are netted or handlined in season by commercial fishermen. In American Samoa, this fish occurs throughout most of the year and is caught in lagoons and bays around Tutuila, usually pole fishing from shore and piers and handlining from boats. In Guam, large schools of juveniles occasionally enter bays and are taken with surround nets and sometimes with spinning gear, usually from April to August; larger fish are taken handlining offshore at night during dark moon phases. An excellent food fish.

175.



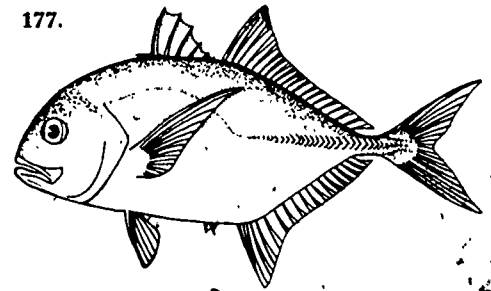
175. WHITE ULUA (H), ulua kihikihi, kagami ulua (H), thread crevally, *Alectis ciliaris* (Bloch). Previously known as *Carangoides ajax* A similar species, *Alectis indica* (Rüppell), also occurs in Hawaii and may enter the sport catch. **DISTRIBUTION:** Tropical Indo-Pacific. **SIZE:** Up to 3½ feet (107 cm) long; usually about 10 to 15 pounds (4.5-6.8 kg). **COLOR:** Adult fish are dusky white, often darker along the dorsal area; young are silvery. □ The juvenile form, called ulua kihikihi, is one of the most beautiful fish in Hawaiian waters, with the first four or five spiny rays of the dorsal and anal fins produced into long trailing streamers. As the fish matures, these spines grow shorter, and in some adults they disappear completely. The young are often found in harbors and other sheltered waters, but upon reaching maturity this once delicate creature assumes a more jacklike appearance, moves to deeper and more open water. Taken from rocky shores with heavy bait-casting gear. Offshore they are frequently caught deepwater trolling or handlining at depths of about 10 to 30 fathoms (18.3-54.9 m). An excellent food fish, served raw or cooked.

176.



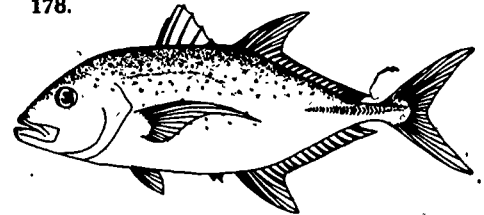
176. 'OMAKA (H), Atule mate (Cuvier and Valenciennes). **DISTRIBUTION:** Tropical Pacific. **SIZE:** Up to 12 inches (30 cm); averages about 8 to 10 inches (20-25 cm). **COLOR:** Greenish yellow often with a brassy tinge over silvery sides. □ This jack is found in protected bays and estuaries in Hawaii, and juveniles are very abundant in fall around floating objects. Most 'omaka are caught with light spinning tackle from shore and piers, and handlining from boats from March to October. Fresh and salted anchovy (nehu) is used for bait. Occasionally taken with throw nets and gill nets. Considered an excellent food fish.

177.



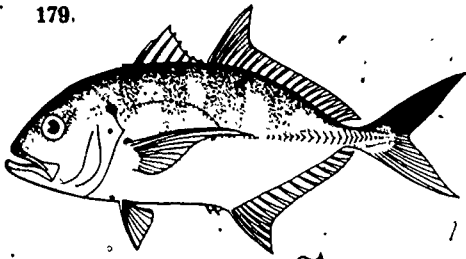
177. PA'U'U (H), tarakito (G) (young called "papiro" (H), "lupo" (S), or "tarakitiyo" (G), as are the young of other jacks), crevalle, jack crevally, *Caranx ignobilis* (Forskål). **DISTRIBUTION:** Tropical Indo-Pacific and Red Sea. **SIZE:** Up to about 3 feet (91 cm). **COLOR:** Pale olive above with a greenish tinge around the head; sides white; yellow anal fin. □ One of the more common jacks found around the Pacific Islands. The young are caught by shore anglers with pole and line in brackish-water bays and harbors throughout the islands. In Hawaii live shrimp, or "opae," is used almost exclusively as bait for small fish under 2 pounds (0.9 kg). Adult fish are found over nearshore reefs and are caught casting from rocky shores and ledges and sometimes by spearing. An excellent food fish.

178.



178. 'OMILU (H), hoshi ulua (H), oshi (H), illioli (H), omilumilu (H), malauli (S), tarakito (G), star jack, spotted jack, blue ulua, blue crevally, *Caranx melampygus* Cuvier and Valenciennes. **DISTRIBUTION:** Tropical Indo-Pacific. **SIZE:** Up to 3 feet (91 cm); most fish taken are about 1 to 2 pounds (0.5-0.9 kg). **COLOR:** Rather variable, usually brownish blue above and silver tan on sides and belly. Fish between 10 and 24 inches (25-61 cm) have many small blackish spots on body; larger fish tend to lose spotting and become more of a uniform dark metallic blue. □ The 'omilu is another very common jack found throughout the Pacific Islands. This fish often moves in close to shore following channels in coral reefs and is taken by shore anglers with surf-casting gear. It is probably the most common ulua caught from shore in Hawaii, especially on the island of Hawaii where it is known locally as illioli. Generally, young fish are found in shallow bays and estuaries while medium-sized fish from 6 to 20 inches (15-51 cm) are taken over reefs. The largest fish are taken with trolling gear just outside the reefs. Also taken spearing, gill netting, and handlining. An excellent food fish.

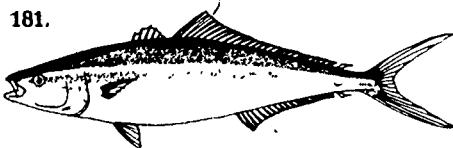
179.



179. PAKE ULUA (H). mēmpachi ulua (H). young called papio (H). tarakito (G). or lupu (S). *Coronx sexfaciatus* Quoy and Gaimard. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 5 feet (152 cm) or more long; most caught weigh about 2 pounds (0.9 kg). COLOR: Dark blue green to gold above; yellow-green to silver below. The upper lobe of the caudal fin is black. Juveniles have four to seven dark vertical bars. Young fish are found in tide pools and brackish-water areas out to deeper coastal waters; adult fish live along rocky shores in turbulent water and over reefs. In Hawaii, the pake ulua is one of the largest of the jacks taken by anglers but this fish appears to be less common now than in previous years. Caught by hook and line from shore and from boats, adult fish are often taken along with opelu and akule while handlining at night. Some are taken by spears. An excellent food fish.

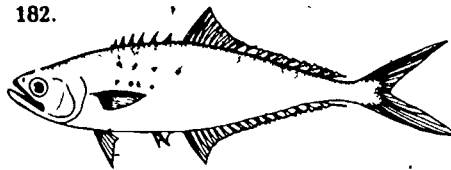
180. BLACK ULUA (H). tarakito (G). jack. *Coronx lugubris* Poey. DISTRIBUTION: Circumtropical. SIZE: Up to 3 or 4 feet (91-122 cm) long; average weight about 4½ pounds (2.0 kg). This fish frequents outer reef channels and is similar in appearance to *C. sexfasciatus*, but has a darker body color and an almost black head. Caught by anglers in Hawaii and particularly abundant around Guam where they are taken with handlines over bottomfishing areas around the island. Although there are reports of the flesh of this species being poisonous in certain parts of the Atlantic, it is commonly eaten in the tropical Pacific.

181.



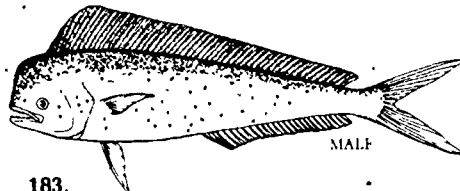
181. KAMANU (H). Hawaiian salmon, rainbow runner. *Elegotis bipinnulatus* (Quoy and Gaimard) DISTRIBUTION: Circumtropical. SIZE: The all-tackle record—a fish taken off Kauai—measured 3 feet 11 inches (119.4 cm) and weighed 30 pounds 15 ounces (14.0 kg). Most kamanu caught in the Pacific Islands weigh around 12 to 15 pounds (5.4-6.8 kg). This fish is reported to reach 70 pounds (31.8 kg), although this seems doubtful. COLOR: Dark blue above followed in succession down the sides by a light-blue stripe, then a yellow stripe, then another light-blue stripe. Yellowish silver below, fins yellow. This sleek and colorful member of the jack family is an open-ocean species, usually seen and caught near the water's surface. Exceptionally large fish are taken in Hawaii, especially off Kauai and Oahu. Also caught off American Samoa and Guam. Caught by trolling with small lures or baits, also with handlines. Excellent g. cooked or raw.

182.

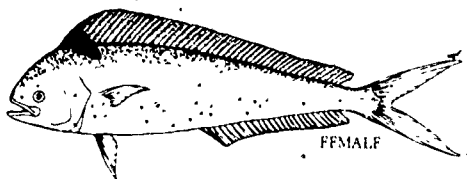


182. LAE (H). lai (S). hagi (G). leather-jacket, runner, leatherback. *Scomberoides lyson* (Forskåll). DISTRIBUTION: Tropical Indo-Pacific and Red Sea. SIZE: Up to 25 inches (64 cm); usually 12 to 15 inches (30-38 cm). COLOR: Dusky above, fading to silver on sides and belly. The swift-swimming lae is an inshore coastal fish that frequents sheltered bays and harbors and brackish-water areas near the mouths of streams. It feeds at the surface or in mid-water, mostly on smaller schooling fishes. Seldom found very far from shore. In Hawaii, caught with hook and line during the day, often by shore anglers casting bait or lures for young jacks. This fish should be handled carefully because of its sharp, venomous anal spines. A good fighter on light tackle. Not widely sought after for food. In Hawaii the tough, leathery skin of the lae is valued for making trolling lures.

## CORYPHAENIDAE: DOLPHINS



183.

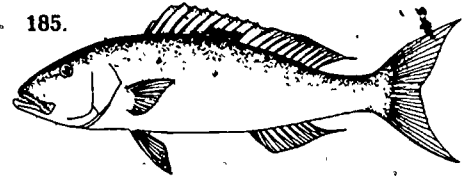


183. MAHIMAHI (H. G). masimasi (S). dolphin. *Coryphoeno hippurus* Linnaeus. DISTRIBUTION: Circumtropical. SIZE: All-tackle record (Spanish Wells, Bahamas) is 85 pounds (38.6 kg) with a length of 69 inches (175.3 cm). Hawaiian fish range up to 72½ pounds (32.9 kg), average about 25 pounds (11.3 kg). COLOR: When alive the body is brilliant yellow and green dotted with phosphorescent blue, the dorsal fin is purplish blue. This beautiful fish flashes a rainbow of colors when caught, and also just before dying. Perhaps this is the best known and most colorful of game fishes and one of the most abundant species caught deep-sea trolling in the Pacific Islands. Mahimahi inhabit the open sea, sometimes swimming in large schools. Commonly seen swimming close to the surface near schools of flying fish on which they feed, or around floating objects. Small fish up to 5 pounds (2.3 kg) are plentiful around the Hawaiian Islands in summer; large fish 30 to 40 pounds (13.6-18.1 kg) are taken February to April. Common off American Samoa and Guam year-round, with best fishing off the western coast of Guam usually from January to April (larger fish are caught later in the season). Males have an almost vertical head profile and grow to larger sizes than the females. Taken trolling and handlining and is as delicious to eat as it is beautiful.

184. LITTLE MAHIMAHI (H). pompano dolphin. *Coryphoeno equisetis* Linnaeus. DISTRIBUTION: Circumtropical. This fish is similar in appearance and habits to the mahimahi, but is known to reach a length of only about 30 inches (76 cm). Occasionally taken by Hawaiian anglers.

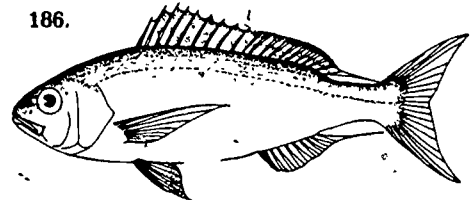
## LUTJANIDAE: SNAPPERS

185.



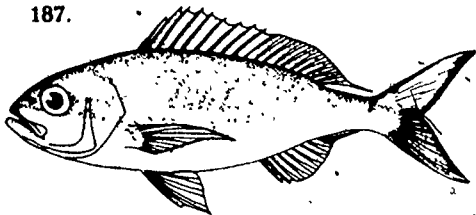
185. UKU (H). aso'ama (S). gray snapper. *Aprion virescens* Cuvier and Valenciennes. DISTRIBUTION: Tropical Pacific. SIZE: Up to 2 feet (61 cm) long; usually about 8 pounds (3.6 kg). COLOR: Uniform grayish blue, with the dorsal area more bluish than below. Dark blue towards head; three dark spots near base of dorsal fin. Of the large deepwater snappers discussed here, the uku occurs the nearest to shore and in relatively shallow water, usually less than 60 fathoms (109.7 m) deep. It is the most cylindrical of the snappers, having a long head and snout with a rather prominent groove on either side. Taken by hook and line over deep-sea ledges or banks, usually on or near rocky or hard bottom. Some are taken by trolling. An excellent food fish.

186.



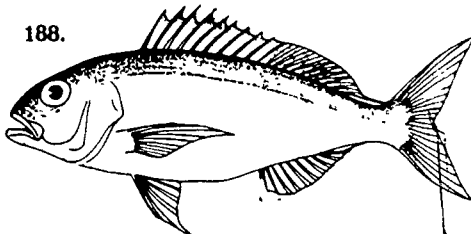
186. OPAKAPAKA (H). pink paka (G). pink snapper. *Pristipomoides filamentosus* (Bleeker). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 3 feet (91 cm) long and about 18 pounds (8.2 kg); usually 5 to 6 pounds (2.3-2.7 kg). COLOR: Light violet brown dorsally, fading to dusky white below; pectoral fin yellowish. Last rays of dorsal and anal fins produced into filaments that reach base of tail fin. Like the uku, the opakapaka is a deepwater fish, most abundant over rocky bottom drop offs. One of the more common snappers caught over Guam's banks, with most taken at depths of 100 to 150 fathoms (182.9-274.3 m). This fish is also reported to be abundant over the offshore ledges of American Samoa at about 200 to 300 fathoms (365.8-548.6 m), but these bottomfishing areas are seldom fished. In Hawaii, it is generally found in shallower water at around 40 to 100 fathoms (73.2-182.9 m) and young fish are sometimes taken in 20 fathoms (36.6 m). Taken handlining, in Hawaii, most are caught during the winter months. An excellent food fish.

187.



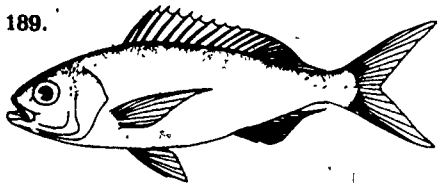
187. YELLOWTAIL KALIKALI (G), *Pristipomoides auricilla* (Jordan, Evermann, and Tanaka). DISTRIBUTION. Tropical Pacific. SIZE. Up to about 18 inches (46 cm) long. COLOR. Body purplish with 17 to 18 narrow, irregular chevron-shaped yellow bands; iris yellow; edge of upper lip yellow; fins yellowish, upper-lobe of tail fin with a purple margin. Large males over about 10½ inches (27 cm) have a rather distinct yellow blotch on upper lobe of tail fin. [ ] A very common deepwater snapper in Guam, caught handlining over offshore ledges and banks at similar depths as *P. filamentosus*. An excellent food fish.

188.



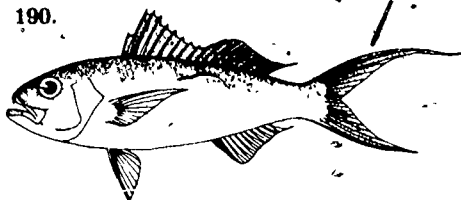
188. YELLOWEYE OPAKAPAKA (G), *Pristipomoides flavipinnus* Shinohara. DISTRIBUTION: Ryukyus and Guam. SIZE: Up to at least 17 inches (43 cm) or more long; fish over 16 inches (41 cm) occur frequently in catch. COLOR: Body lavender-brown becoming pale towards belly; eye yellow; snout and head mottled with narrow, irregular, light-yellow streaks. Scales have yellow spots which form thin horizontal stripes above lateral line; fins yellowish. [ ] This is another common Guam snapper taken at about the same depths as *P. filamentosus* and *P. auricilla*. An excellent food fish.

189.



189. KALIKALI (H), pink kalikali (G), *Pristipomoides sieboldii* (Bleeker). DISTRIBUTION: Tropical Pacific and Indian oceans. SIZE: Up to at least 18 inches (46 cm). COLOR: Light lavender above becoming paler below. Scales above the lateral line have pale-blue spots in the center, forming lengthwise lines, that become indistinct toward the belly. Margin of dorsal fin orange with light lavender; tail fin dark lavender with a light margin. [ ] This offshore snapper is commonly taken around Guam handlining over offshore banks and ledges at depths from 100 to 150 fathoms (182.9-274.3 m); none have been reported from depths less than 100 fathoms (182.9 m). In Hawaii, the kalikali is relatively minor in the sport catch, where it is taken from depths of 60 to 200 fathoms (109.7-365.8 m) with most caught in water 20 fathoms (146.3-219.5 m). Considered an excellent food fish.

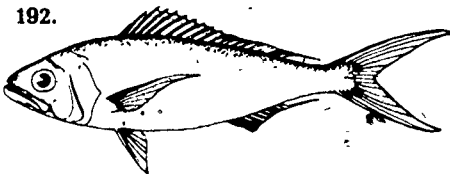
190.



190. ONAGA (H, G), 'ula'ula koae (H), palu (S), red snapper, *Etelis carbunculus* Cuvier. DISTRIBUTION. Tropical Pacific and Indian oceans. SIZE. Up to 36 pounds (16.3 kg); most run about 4 to 5 pounds (1.8-2.3 kg). COLOR. Red above; silvery pink below, eye red and mouth red or pink; dorsal and tail fin red. [ ] In Hawaii caught over offshore drop offs, usually in water deeper than the uku or 'opakapaka at depths of 80 to 130 fathoms (146.3-237.7 m) but not more than 160 fathoms (292.6 m). This is also a common snapper taken over ledge areas and banks off Guam and Samoa, usually at depths of 100 fathoms (182.9 m) or more. Caught handlining year-round, mostly during daylight. Onaga is a very important market fish in Hawaii. The meat has a delicate sweet flavor and is usually served raw, "sashimi" style. It brings a high price at the market especially during the New Year's season when the demand for traditional "onaga-sashimi" is at its peak. Also prepared as a special dish for weddings.

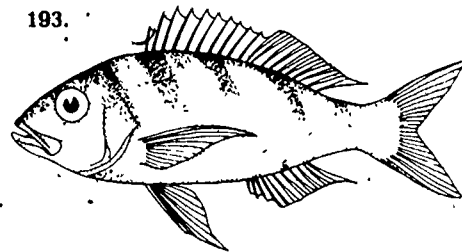
191. 'ULA'ULA (H), 'ehu (G), *Etelis marshi* (Jenkins). DISTRIBUTION. Tropical Indo-Pacific. SIZE: In Hawaii up to 2 feet (61 cm) long. In Guam this fish is known to reach 40 pounds (18.1 kg) in weight, but most caught are about 2 pounds (0.9 kg). COLOR. The 'ula'ula is similar in appearance and habits to the onaga, but lacks the red coloration on the inside of the mouth and usually has a yellowish band along the middle of the sides. [ ] Taken handlining along with onaga in Hawaiian waters, and one of the more common snappers found in Guam and American Samoa over offshore ledges and banks. An excellent food fish.

192.



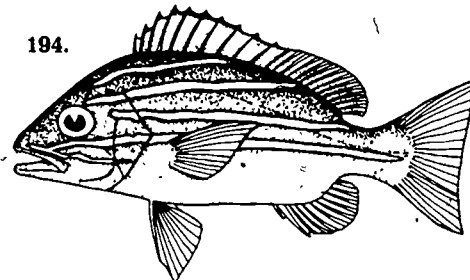
192. LEHI (G), *Aphareus rutilans* Cuvier and Valenciennes. DISTRIBUTION: Tropical Pacific. SIZE. Up to at least 3 feet (91 cm) long. COLOR. Brick red. [ ] A common Guam snapper taken handlining on the bottom over the Galvez Bank and off much of the leeward and windward coasts. This species also occurs in American Samoa and Hawaii, but is not important in the sport catch.

193.



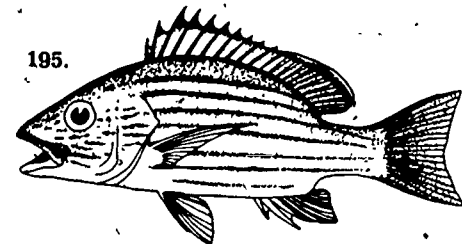
193. GINDAI (G), *Rooseveltia brighami* (Seale). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 20 inches (51 cm). COLOR: Alternating red and yellow vertical bars; dorsal, pectoral, and caudal fins yellow. [ ] This colorful Guam snapper is commonly taken over 100-fathom (182.9-m) drop offs around the island. It also occurs in American Samoa and occasionally appears in Hawaiian markets. A good food fish.

194.



194. TA'APE (H), 'avani (S), funai (G), blue-lined snapper, yellow-and-blue seaperch, *Lutjanus kasmira* (Forskål). DISTRIBUTION. Tropical Indo-Pacific. SIZE. Reported to reach 15 inches (38 cm) long. COLOR. Bright lemon yellow with pale-blue stripes edged with lavender or deep purple. [ ] This distinctively colored fish is probably the most abundant inshore snapper taken in American Samoa, where it is commonly found in water 20 to 100 fathoms (36.6-182.9 m) deep. Relatively common around Guam at depths of 35 to 40 fathoms (64.0-73.2 m), though generally incidental in the sport catch. Introduced to Hawaii from the Marquesas in 1958 and 1969, where it now has entered the sport and commercial catch in significant numbers. In the Hawaiian Islands ta'ape are found in large schools over hard bottom in water 40 to 100 feet (12.2-30.5 m) deep, with adults sometimes in water up to 240 feet (73.2 m) deep. Caught handlining at night; some are taken in traps in Hawaii. A very good food fish.

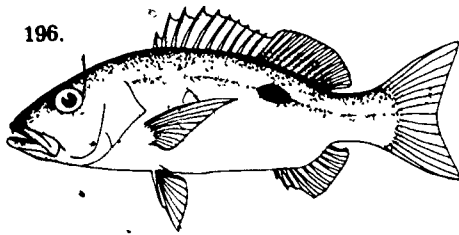
195.



195. TOAU (H), bua (G), red-margined seaperch, *Lutjanus fulvus* (Bloch and Schneider). DISTRIBUTION: Tropical Pacific. SIZE: Reaches a length of about 13 inches (33 cm). COLOR: Dusky yellow above fading to pale yellow or white below, with thin longitudinal yellow stripes along

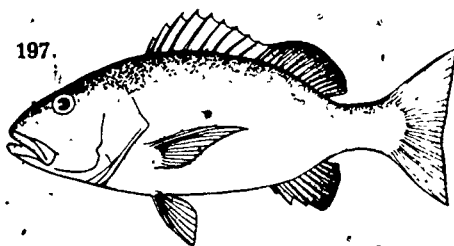
the scale rows. Dorsal and tail fins dusky red; anal and pelvic fins yellow; pectoral fin yellow on upper edge; small gold flecks and broken lines on head and cheek area. [ ] An inshore fish found in brackish water and around stream mouths out to about 40 or 50 feet (12.2-15.2 m) of water, sometimes entering deep tide pools. Feeds on small fishes and invertebrates and often seen in small aggregations. Successfully introduced to Hawaiian waters in 1956 and 1958. Taken by hook and line from shore and from boats; taken also with gill nets, surround nets, and spears. Considered a very good food fish.

196.



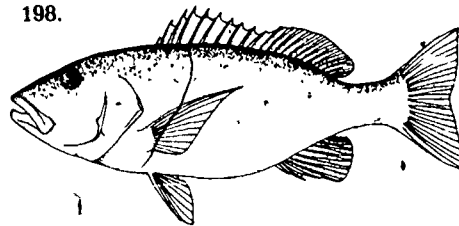
196. KAKAKA (G), vava sui (S), feloteaga (S), taiva uli'uli (S), *Lutjanus monostigmus* (Cuvier and Valenciennes). DISTRIBUTION: Tropical Pacific. SIZE: Up to 18 inches (46 cm); most caught are about 10-12 inches (25-30 cm). COLOR: Olive-green body (sometimes coppery red, particularly in Samoan waters), scales on side brassy, belly yellowish white or light coppery red, lips bright red; fins all bright orange yellow. In general, this fish usually is distinguished by the small but prominent black spot on its side. [ ] One of the larger nearshore snappers commonly taken from shore over reef areas around the island of Guam and American Samoa. Like some other members of the snapper family it has been linked with cases of ciguatera, or fish poisoning, but in Guam it is commonly eaten and is also sold in the markets of American Samoa despite reports of it sometimes being toxic there.

197.



197. MU (S), tagafi (G), *Lutjanus bohar* (Forskål). DISTRIBUTION: Widespread throughout the Tropical Pacific. SIZE: Attains 30 inches (76 cm). COLOR: Adult fish are uniformly red with a light greenish tinge around the head area; yellow eyes. Sometimes bronzy above, lighter below with two oval light spots on side. Base of pectoral and pelvic fins, rosy; otherwise fins dusky. [ ] This snapper is commonly caught by handliners in American Samoa and Guam, usually in water 100 fathoms (182.9 m) or less, but does not occur in Hawaii. The flesh is reported to be poisonous and should not be eaten, even though in Guam many large fish (17-25 pounds or 7.7-11.3 kg), which are usually the most toxic, were taken by the Guam Division of Fish and Game in relatively deep water (35 fathoms 64.0 m), and none proved to be poisonous.

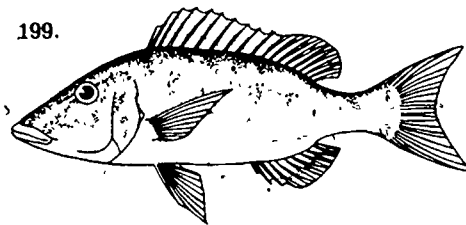
198.



198. MALA'I (S), fafaet (G), red snapper, *Lutjanus gibbus* (Forskål). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 24 inches (61 cm). COLOR: Body uniform red with red eyes. Large adults often are slightly dusky above and reddish below. [ ] A common snapper taken about reefs in American Samoa and Guam, occurring in moderately deep water. Usually taken handlining over the deeper parts of the reef; in Guam, some are taken spearing. Reportedly the flesh of this species causes severe poisoning in other parts of its range; however, fish taken from American Samoa and Guam waters are said to be not toxic and are commonly eaten.

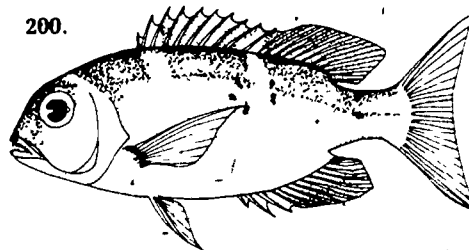
#### LETHRINIDAE: EMPERORS

199.



199. FILOA (S), hihlok (G), green snapper, *Lethrinus miniatus* (Forster). DISTRIBUTION: Tropical Indo-Pacific and Red Sea. SIZE: Up to about 36 inches (91 cm). COLOR: Body dark brown to grayish, sometimes with dark mottling on sides, dorsal, anal, and tail fins pinkish, pectoral fin yellow. [ ] This long-snouted species is a common inshore reef fish in American Samoa and Guam, and is taken with a baited hook in water up to 100 feet (30.4 m) deep in American Samoa and up to 300 feet (91.4 m) in Guam. Large specimens are known to be slightly toxic in Samoa and other parts of this fish's range, however, it is said to be not toxic in Guam where it is highly prized as a food fish.

200.

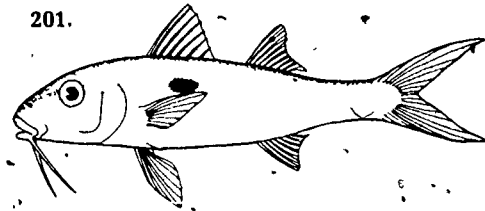


200. MU (H), mamamu (H), mumu moaga (S), loaha (S), matanhagon (G), *Monotaxis grandoculis* (Forskål). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 2 feet (61 cm). COLOR: Dusky to olive green with two whitish crossbars (sometimes three and four bars); black crescent at base of pectoral. Dorsal fin brownish and reddish at tip, caudal and anal fins orange and yellow at base; anal, pectoral, and ventral fins reddish; inside of mouth red. [ ] This species occurs over reefs in Hawaii and is

common in Samoan waters. It is considered a good eating fish and is usually caught by handline. Some are taken with spears and nets.

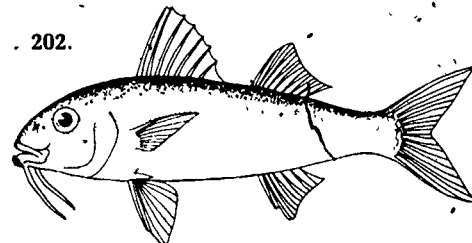
#### MULLIDAE: GOATFISHES

201.



201. WEKE'A'A (H), i'a sina (S), afolu (S), salmonete (G), spot weke, spot goatfish—young called "oama" in Hawaii and "teau" in Guam, *Mulloidichthys flavolineatus* (Lacépède). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 18 inches (46 cm); "oama" average about 5 inches (13 cm) or less. COLOR: Silvery white with a yellow horizontal band extending from eye to tail; spot as indicated. This fish can change its markings rather rapidly, with additional spots or blotches appearing along the lateral yellow band which becomes paler and edged with blue. [ ] A very common inshore goatfish throughout the Pacific Islands, occurring on or near the bottom in schools or small aggregations over sandy patches that intersperse reef areas. When feeding, it rummages in the sand for food with its fingerlike chin barbels, leaving puffs of sand clouds in its wake. In Hawaii during late summer the young or "oama" swarm in shallow sandy areas and are caught from shore with poles and lines. Adult fish are mostly speared or netted; some are caught in fish traps and handlining from boats. In Guam, juveniles (teau) are much sought after by cast netters and surround netters and are quite common in the lagoon habitat. Considered a good food fish.

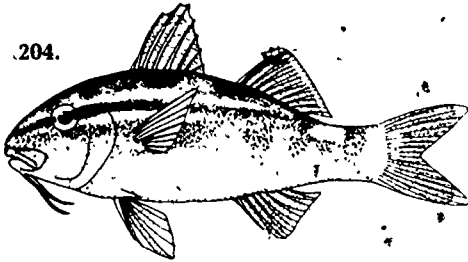
202.



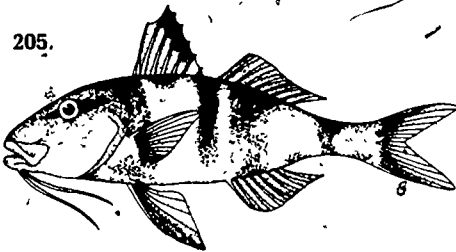
202. WEKE'ULA (H), salmonete manning (G), vete (S), ulia oa (S), red weke, red goatfish, *Mulloidichthys vanicolensis* (Cuvier and Valenciennes). DISTRIBUTION: Tropical Indo-Pacific and Red Sea. SIZE: Up to 16 inches (41 cm) long; usually about 8 to 10 inches (20-25 cm). COLOR: Rosy red on the dorsal region, fading to whitish pink below. There is a prominent light-yellow band along the sides, extending from the eye and fading out towards the tail region. Ventral and pectoral fins are pale rosy; caudal fin has a yellowish tinge. [ ] The weke'ula is nocturnal, occurring in shallow-reef areas over sandy bottom, seeming to prefer more rocky surroundings than other goatfishes and deeper water of about 5 to 15 fathoms (9.1-27.4 m); probably deeper off the Kona coast of Hawaii. In Hawaii the weke'ula is

usually netted, although sometimes taken by hook and line from shore and from boats or by "torch fishing" with spears or hand nets. A good food fish.

203. MALU (H), salmonete acho (G), goatfish, *Parupeneus pleurostigma* (Bennett). DISTRIBUTION: Widespread in the central Indo-Pacific. SIZE: Reaches a length of about 16 inches (41 cm). This is another relatively common goatfish similar to the weke-a'a in habits and appearance, except the malu is stockier, the base of the soft-rayed dorsal fin is very dark, and the blotch on the side is more deep than long. Taken by spearing and with nets.



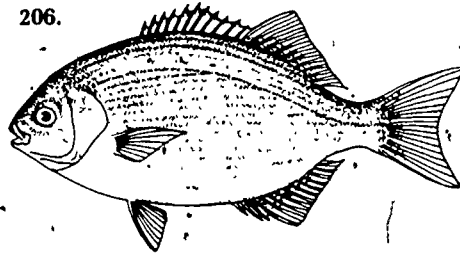
204. KUMU (H); red goatfish, *Parupeneus porphyreus* (Jenkins). DISTRIBUTION: Tropical Pacific. SIZE: Up to 8 or 9 pounds (3.6-4.1 kg); usually 1 to 3 pounds (0.5-1.4 kg). COLOR: Usually reddish with a rather prominent stripe through the eye, although young specimens occasionally have a greenish-color phase. Distinguished by the white saddle behind the soft dorsal fin. A fairly common Hawaiian goatfish found at various depths throughout reef areas especially under coral heads, often coming very close to shore. Caught mostly by spearing and in traps during the day; some are taken at night by spears of divers or waders on the reef with lights. The kumu is an extremely prized food fish in Hawaii. The flesh is considered a delicacy.



205. MOANO (H), *Parupeneus multifasciatus* (Quoy and Gaimard). DISTRIBUTION: Hawaiian Islands. SIZE: Up to 12 inches (30 cm) or so; averages about one-third of a pound (less than 0.2 kg). COLOR: Dark red with alternating bands of pale rosy red and darker red. Usually distinguished by the dark-red-to-black bar that extends down between the two dorsal fins. This small goatfish is found over sand bottom from the shore to depths of about 40 fathoms (73.2 m), and like the other goatfishes mentioned it is usually found where patches of sand intersperse rock or coral. An abundant in-shore reef fish, taken in traps and by shore anglers with spinning and bait-casting gear, often along with papio and other small goatfishes. On the big island of Hawaii most are speared, though some are taken handlining (drifting and at anchor). Although small, the moano is considered by some to be among the tastiest of Hawaiian

#### KYPHOSIDAE: RUDDERFISHES, SEA CHUBS

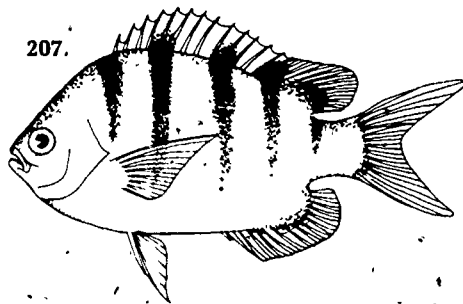
206.



206. NENU (H), manaloa (H), nenu parii (H), guili (G), sea chub, rudderfish, *Kyphosus cinerascens* Forskål. DISTRIBUTION: Tropical Indo-Pacific and Red Sea. SIZE: Up to 10 or 12 pounds (4.5-5.4 kg); averages about 4 to 6 pounds (1.8-2.7 kg). COLOR: Gray brown with blue reflections, lighter below. Narrow dark bands on sides between scale rows. Some fish have irregular blotches of yellow on sides, and on rare occasions a specimen may be entirely yellow. In Hawaii, the nenu is partial to rough and turbulent waters along rocky coasts where it is often found in large schools. In Guam, it seems to prefer the edges of channels and reef margins. This species feeds mostly on algae. Large fish are generally taken by spear, cast nets, and gill nets; the young are sometimes caught during the day by hook and line. Nenu is rather difficult to hook because of its small mouth, but when hooked it fights vigorously. Generally not esteemed as a food fish in Hawaii, but some consider it a delicacy—it is much sought after by Guamanians. The flesh has a strong flavor, probably due to the fish's algal diet.

#### POMACENTRIDAE: DAMSELFISHES

207.

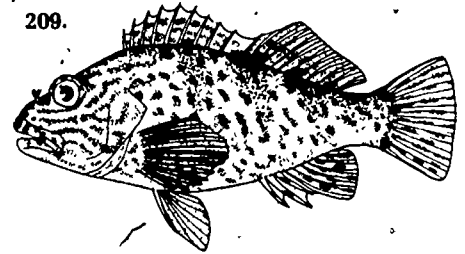


207. MAOMAO or "mamo" (*Abudefduf abdominalis* (Quoy and Gaimard)). DISTRIBUTION: Hawaiian Islands. SIZE: Up to 9 inches (23 cm), most taken are about 5 inches (13 cm) long. COLOR: Pale brassy or green with four or five black vertical bars as indicated. Belly white with yellow tinge near the anal fin. This delicious little pan fish abounds in shallow-water reefs, harbors, and bays throughout the islands. It feeds on small crustaceans in the water and is often found in loose aggregations hovering over the reef or darting around pilings and other underwater structures. Maomao are the prime quarry of Hawaii's children who catch them from shore with pole and line using a very small hook. Also caught by spearing, in traps, and with cast nets.

208. KUPIPI (H), dodo (G), sergeant major, *Abudefduf sordidus* (Forskål). This fish is similar in appearance and habits to maomao, but is readily distinguished from it by a prominent black spot near the tail immediately behind the soft dorsal fin. The body color is also more grayish than that of maomao.

#### CIRRHITIDAE: HAWKFISHES

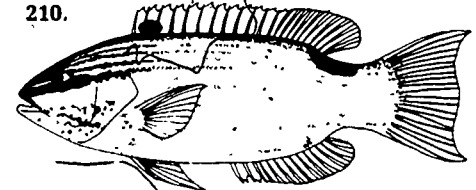
209.



209. PO'O-PA'A (H), 'o'opu-kai (H), spotted hawkfish, *Cirrhitus pinnulatus* (Bloch and Schneider). DISTRIBUTION: Tropical Pacific. SIZE: Up to about 10 inches (25 cm); most caught are about 5 inches (13 cm) long. COLOR: Red, brown, and white spottings and mottlings. Like the rest of the hawkfish family this fish is characterized by a fleshy fringe on the snout. This nocturnal predator prefers the turbulent water of the surge zone where it lies in wait for passing prey, sometimes on large rocks or coral heads. Occasionally it darts out to snatch its prey, then returns to its original post or swims to another vantage point to begin another vigil. During the day, the po'o-pa'a hides in crevices in the reef. Taken by hook and line and spearing. Considered only fair as a food fish, and is used mainly in making soup. The meat tends to fall apart when fried.

#### LABRIDAE: WRASSES

210.

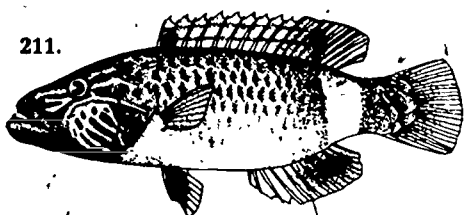


210. A'AWA (H), hinalea (H), spot wrasse, blackspot wrasse, *Bodianus bilunulatus* (Lacépède). DISTRIBUTION: Tropical Pacific. SIZE: Up to about 24 inches (61 cm) or about 8 or 9 pounds (3.6-4.1 kg); most caught are about 5 pounds (2.3 kg) or under. COLOR: Highly variable with age and sex as is the case with many members of the wrasse family. Females go through three color phases with growth: fish 4 to 12 inches (10-30 cm) long are nearly all red with a black spot under the soft dorsal fin, those over 12 inches (30 cm) are usually plain bluish black. Males are marked as illustrated, dark reddish brown or purplish bands on head area thinning to narrower and somewhat redder stripes on sides and belly, which is white or pale yellow, eye red, pronounced white band on head area, dorsal, caudal, and anal fins yellow. The 'a'awa is one of the larger Hawaiian wrasses and is fairly abundant throughout the coral reef habitat. It is



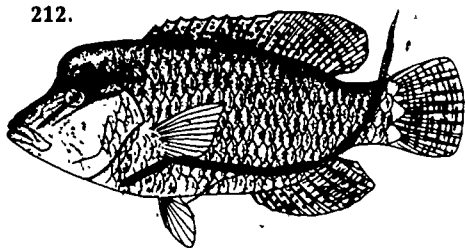
taken on the bottom in shallow water out to depths of about 100 feet (30.5 m) or more, with bigger fish occurring in deeper water. The 'a'awa, like other members of the wrasse family, is active during the day and hides among coral or under sand at night. Caught handlining from boats, usually while fishing for other species and often considered a nuisance. Sometimes taken by spear. Opinions on the food value of this fish vary from poor to good.

211.



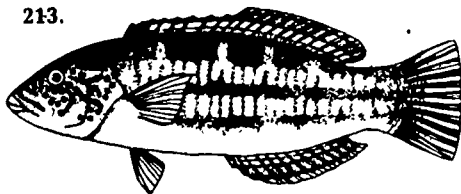
211. PO'OU (H), *Cheilinus rhodochrous* Günther. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to 2 feet (61 cm); most are about 10 inches (25 cm) or about ¼ pound (0.3 kg). COLOR: Highly variable with growth. At 10 inches (25 cm), plain olive drab with a white saddle near the tail (see illustration). Fish 20 inches (51 cm) and over have no white saddle, but have large black spots at base of the dorsal and anal fins, and the ventral fin is dark. □ The po'ou is commonly found in reef areas around the islands of Molokai, Lanai, Maui, and Hawaii, at depths up to 40 or 50 feet (12.2-15.2 m). In the Hawaiian Islands it is often caught along with 'a'awa while handlining and spearing. Taken by spear in Guam. A good food fish.

212.



212. TANGISON (G), *Cheilinus undulatus* Rüppell. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Known to reach 5 to 6 feet (152-183 cm) or more in length, and over 100 pounds (45.4 kg). COLOR: Mostly a dull, mottled olive green, each scale with a vertical purplish line; red and green bars and spots on dorsal and anal fins; tail fin edged with yellow; pelvic fins yellow. □ This exceptionally large wrasse is caught in Guam; however, large specimens frequently taken by local anglers before the advent of scuba are now much less common. This humpheaded wrasse is much prized and an excellent food fish. Taken spearing and sometimes bait casting.

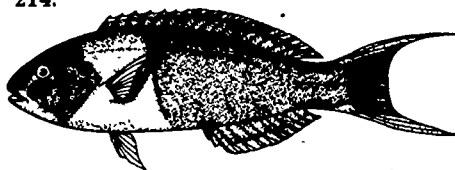
213.



213. HINALEA (H), *Thalassoma* (Lacepede). DISTRIBUTION: Tropical Pacific. SIZE: Up to 11 inches (28

cm); usually about 6 inches (15 cm). COLOR: Pale greenish with two or three irregular, broad, horizontal rosy stripes, which intermingle with greenish stripes, brown blotches, and purplish bars. Dark brown to black spots and reticulations on head. □ This colorful wrasse is common to open rocky surge areas and shallow-water coral reefs, and is sometimes found in deepwater tide pools. Although principally a daytime feeder, the hinalea is often taken at night and is caught by hook and line from shore as well as from boats in the Hawaiian Islands. It is taken occasionally by spear in Guam. The very slimy skin makes it difficult to hold. Opinions vary on its food value; generally not sought after.

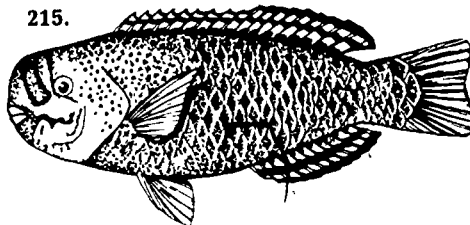
214.



214. HINALEA LAUWILI (H), 'a'ala'ahi (H), saddle wrasse, *Thalassoma duperreyi* (Quoy and Gaimard). DISTRIBUTION: Hawaiian Islands. SIZE: Up to about 12 inches (30 cm); most caught are under 6 inches (15 cm). COLOR: Adults are green with a striking orange-brown shoulder bar. □ A very abundant Hawaiian wrasse found throughout the islands along shallow rocky shorelines as well as in pure reef areas. This fish has an annoying habit of robbing a baited hook meant for more desirable species and is often considered a pest by anglers seeking bigger and tastier game; its food value is considered poor.

#### SCARIDAE: PARROTFISHES

215.



215. UHU (H), green parrotfish, *Scarus perspicillatus* Steindachner. DISTRIBUTION: Hawaiian Islands. SIZE: Up to 2 feet (61 cm) or more; most caught are around 14 inches (36 cm) long. COLOR: Males and females differ markedly and were once thought to be two separate species. Large males have a distinctive dark band that extends down below the eye across a humplike snout. The body is olive colored, with each large scale edged with yellow. The dorsal fin is pea green with black stripes and peacock blue at the base. Chin area, edge of tail, ventral fin, are also a vivid peacock blue. Females are reddish brown with red fins, and the head profile is gently sloping, not vertical as in the adult male. □ Found in rocky areas and coral reefs, usually more abundant at the reef's outer edges in water 2 to 4 fathoms (3.7-7.3 m) and deeper. Like other members of the parrotfish family, it scrapes algae off the surfaces of rocks and dead coral with its beaklike jaw teeth during the day, resting

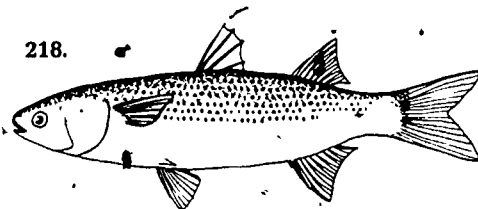
amid rock and coral at night. Young fish sometimes secrete a mucous envelope about themselves during the night which presumably serves as protection against predators. It is the largest and most commonly speared parrotfish in Hawaiian waters—and the most prized. An excellent food fish.

216. UHU (H), parrotfish, *Scarus dubius* Bennett. □ Another common parrotfish taken by spear in Hawaii. Primarily bright orange with blue markings. Attains a length of about 14 inches (36 cm).

217. HUMPBACK PARROTFISH, *Scarus gibbus* Rüppell and *Cetoscorus bicolor* (Rüppell). □ These two parrotfishes are highly sought by Guam anglers. Not as common as they once were, especially the large specimens; both are hunted with spears. *S. gibbus*, larger of the two, is known to reach 30 to 40 pounds (13.6-18.1 kg). Food value is excellent.

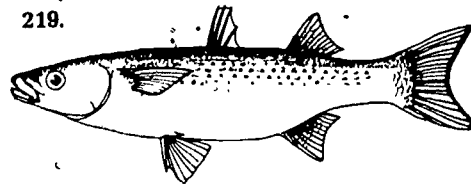
#### MUGILIDAE: MULLET

218.



218. 'AMA'AMA (H), *aguas* (< 8 in., G), *liguan* (> 8 in., G), striped mullet, *Mugil cephalus* Linnaeus. DISTRIBUTION: Tropical and temperate seas, worldwide. SIZE: Up to about 18 inches (46 cm); most caught are around 12 inches (30 cm) long. COLOR: Silvery gray. □ Although schools of 'ama'ama are found along the open coast, they seem to prefer calm waters close to shore, around mouths of streams and inlets and in brackish-water bays and harbors. Just about the most difficult fish to catch by pole and line, but this does not seem to discourage a select breed of Hawaiian islanders who patiently wait for this finicky fish to take a tiny hook baited with bread or limu (seaweed). For those with less patience, the 'ama'ama can be taken by a variety of other fishing gear such as cast nets, gill nets, and surround net (hukilau) and at nighttime torchlight fishing with hand nets or cast nets. In Hawaii the fishing season is closed December through February. On American Samoa this fish is taken mostly with cast nets, and in Guam most are taken with cast nets and surround nets, although light spinning tackle is sometimes used near sand beaches. An important food fish. In Hawaii a small number are raised commercially in fish ponds.

219.



219. UOUOA (H), false mullet, *Neomyscus leuciscus* (Günther). DISTRIBUTION: Tropical Pacific. SIZE: Up to 18 inches (46

cm); usually 6 inches (15 cm). COLOR. Silvery with a yellow mark on the upper part of the pectoral fin. □ The uouoa (often pronounced wo-wo) occurs along sandy shores and in tide pools as well as in rocky surge areas. Common throughout the Hawaiian Islands, where most are taken with cast nets, some by hook and line using bread for bait. This species also occurs in Guam, but is not common. A good food fish.

#### SPHYRAENIDAE: BARRACUDAS

220.

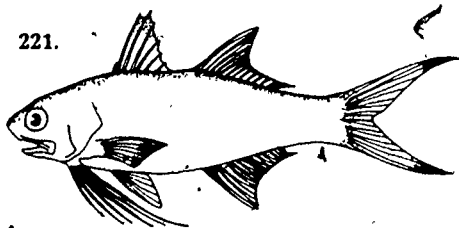


220. KAKU (H), alu (G), great barracuda, *Sphyraeno borrocudo* (Walbaum). DISTRIBUTION: Tropical seas and Atlantic and Pacific oceans. SIZE: All-tackle record (Lagos, Nigeria) is 83 pounds (37.6 kg) with a length of 6 feet 1/4 inch (183.6 cm). Most caught by anglers are under 50 pounds (22.7 kg), average is 5 to 10 pounds (2.3-4.5 kg). COLOR: Slate colored dorsally turning silvery on sides and belly. Black flecks on sides. The kaku occurs inshore as well as offshore and in a variety of habitats. Young fish frequent brackish-water areas and sometimes enter drainage ditches and fish ponds in the Hawaiian Islands. When close to shore in bays or around stream mouths barracuda are usually solitary, but offshore this species tends to travel in schools or small aggregations. Caught casting from shore and trolling lures and baits and handlining from boats. A wire leader is essential. This aggressive and toothsome predator should be regarded with caution, in and out of the water. Considered only fair as a food fish.

The kawalea, or Japanese barracuda (*Sphyraeno helleri* Jenkins), is another species of barracuda taken by anglers and is usually caught handlining. It is a much smaller fish than the kaku, and reaches a length of about 2 feet (61.0 cm). A similar species, *Sphyraeno forsteri*, occurs in Samoan and Guam waters, known locally as "sapatu" and "alu," respectively.

#### POLYNEMIDAE: THREADFINS

221.

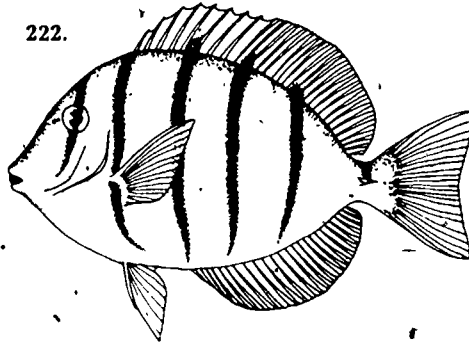


221. MOI (H), young called "moi-li'i" (H), boca dulce (G), Pacific threadfin, *Polydactylus sexfiliis* (Cuvier and Valenciennes). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Reportedly reaches about 24 inches (61 cm) long and about 10 pounds (4.5 kg); most caught are about 12 to 14 inches (30-36 cm). COLOR: Dusky above, silvery on sides and belly; fins black-tipped. The moi is a highly sought-after food and game fish in Hawaii, where it is found in sandy holes (called "moi holes") on rocky shores, and along sandy

beaches in surge areas. From August through December small moi or "moi-li'i" occur in large schools along beaches and in sheltered coves with some venturing into tide pools. Primarily taken casting with baits, plugs, and spoons, also taken with cast nets, gill nets, and spears. Moonlit nights are considered best for catching moi by casting, although this popular sport fish is caught both night and day.

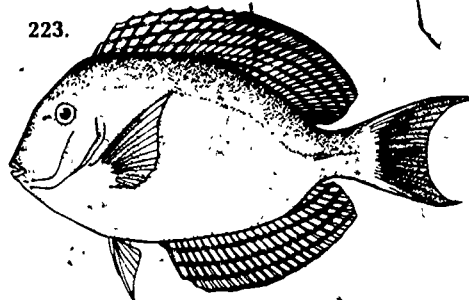
#### ACANTHURIDAE: SURGEONFISHES

222.



222. MANINI (H), kicho (G), convict tang, *Acanthurus sandvicensis* Streets. DISTRIBUTION: Widespread throughout the tropical Indo-Pacific. SIZE: Up to 9 inches (23 cm), averages about 6 inches (15 cm). COLOR: Silvery, sometimes with a yellowish tinge; black vertical bars. □ This is Hawaii's most abundant surgeonfish and can be found in almost any reef area throughout the islands in both calm and turbulent water. It is also common about Guam. The young inhabit tide pools, but with maturity work their way into deeper water. Primarily a schooling fish, but can also be seen singly or in small aggregations. In Hawaii the manini is usually taken by cast nets, but some are also taken with pole and line using shrimp or a special blend of octopus ink (each angler has his own recipe) as well as with gill nets, traps, and spears. In Guam, most are taken with nets and spears. An excellent food fish.

223.

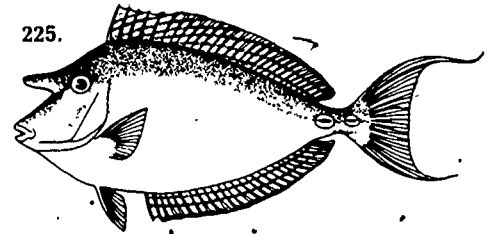


223. PUALU (H), ugupao (G), *Acanthurus xanthopterus* Cuvier and Valenciennes. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to about 20 inches (51 cm), usually about 10 inches (25 cm) long. COLOR: Uniform purplish gray, sometimes with irregular dark stripes along sides; dorsal and anal fins with three or four longitudinal blue bands. □ The pualu is found in bays and harbors as well as in deep outer reefs where coral is interspersed with sand, usually at depths of 30 feet (9.1 m) or more. Taken with pole and line, also trapped, netted, and speared. Like most surgeonfish, the pualu should be

handled with respect. It carries formidable weapons at the base of the tail in the form of recurved spines which it can erect by bending its caudal peduncle, and it usually does so when threatened. These bladelike spines can inflict a nasty wound. Opinions on its food value vary from fair to good.

224. PALANI (H), ugupao (G), surgeonfish, *Acanthurus dussumieri* Cuvier and Valenciennes. DISTRIBUTION: Tropical Indo-Pacific. SIZE: Up to and exceeding 18 inches (46 cm). COLOR: Spotted with black; bright-blue tail fin; fine blue lines on body fading towards belly; caudal spine white and broadly edged with black; yellow dorsal and anal fin. □ The palani, a close relative of the pualu, is another surgeonfish that occasionally enters the sport catch in Hawaii and Guam. It occurs in bays and outer reef areas over sandy patches. Most are taken by traps; some are speared. Food value considered fair.

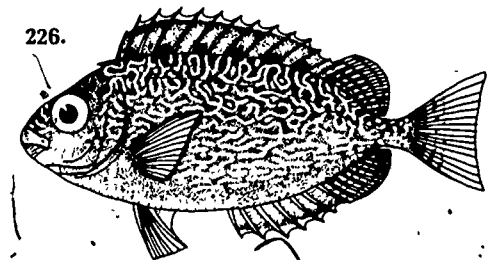
225.



225. KALA (H), tataga (G), ume (S), il'ilia sēgi (S), unicornfish, *Noso unicornis* (Forskål). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Reaches a length of 24 inches (61 cm); averages about 16 inches (41 cm) long. COLOR: Dusky olive; fins light blue; also light blue around the double keel blades. Body color is sometimes very pale. □ The kala occurs in inshore reef areas and along rocky shores where it feeds on algae. It is a schooling fish; however, large individuals are sometimes seen singly on the outer edges of the reef. The young are found occasionally in tide pools. Characterized by the horn on its snout just about at eye level, which is hardly noticeable in young specimens, but lengthens with age. The skin is leathery and strong, and the two keel blades on each side of the tail are immovable and always in an open position. In Hawaii, kala are mostly speared, although some are taken with cast nets, gill nets, and hooks and lines. In Guam, this fish is taken spinfishing and with surround nets. Food value considered only fair.

#### SIGANIDAE: RABBITFISHES

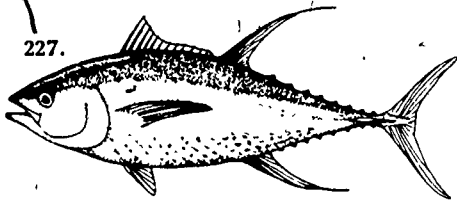
226.



226. SESJUN (G), rabbitfish, *Siganus spinus* (Linnaeus). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Most caught in Guam are 8 or 9 inches (20-23 cm) in length. COLOR: Brown with narrow bluish lines forming a reticulated pattern along

the back, head plain gray or brownish, cheeks silvery, tail fin with three to four faint brown bars. Has slimy slippery skin with tiny concealed scales. Sesjun is a herbivorous species that browses across rock or reef areas, often in large schools. It is a very common shallow-water reef fish found around the island of Guam, where it is caught with cast nets, gill nets, and surround nets. This fish should be handled carefully—it can inflict venomous puncture wounds with its fin spines. An excellent food fish.

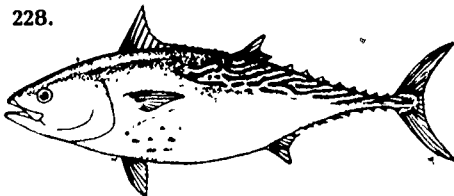
## SCOMBRIDAE: MACKERELS AND TUNAS



227.

227. 'AHI (H), asi (S), yellowfin tuna, *Thunnus albacares* (Bonnaterrre). DISTRIBUTION: Cosmopolitan in tropical and subtropical seas. SIZE: All-tackle record (San Benedicto Island, Mexico) is 308 pounds (139.8 kg) with a length of 7 feet (213.4 cm). In Hawaii, fish are known to range up to 300 pounds (136.1 kg); average size varies with fishing area. In general, deepwater fish found at about 1,000 fathoms (1,828.8 m) averaged about 100 pounds (45.4 kg); those caught in 25 to 100 fathoms (45.7-182.9 m) averaged about 20 pounds (9.1 kg). COLOR: Blue green above, white below. A faint yellow stripe that fades after death, extends from eye to tail. Soft dorsal and anal fins and finlets bright yellow; the dorsal and anal fins lengthen with age. Ahī is a pelagic schooling fish found over deepwater banks and submarine ledge areas. The young often travel near the surface feeding on schools of bait fishes and squid. This popular game fish can be caught year-round throughout the Pacific Islands, trolling or handlining with feathered jigs, plugs, or spoons. In Hawaii, most fishing takes place July to November; in Guam, February to August, and in American Samoa, March to July. Excellent eating, cooked or raw (sashimi style).

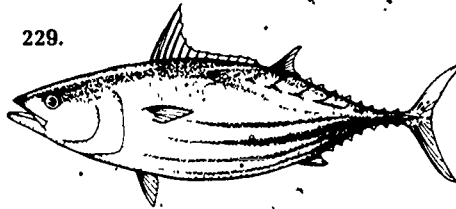
228.



228. KAWAKAWA (H), black skipjack tuna (G), little tunny, bonito, false albacore, *Euthynnus affinis* (Cantor) DISTRIBUTION: Indo-Pacific. SIZE: Up to about 20 pounds (9.1 kg), most caught are around 4 or 5 pounds (1.8-2.3 kg). COLOR: Dark green or blue above, silvery below. Dark wavy marks on dorsal area as indicated, one to five dusky spots below pectoral fin are usually present. The kawakawa is a schooling pelagic species usually caught 'ling over 100-fathom (182.8-m) drop and often in association with aku.

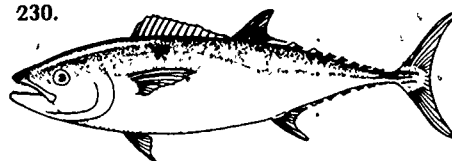
skipjack tuna. Present in Hawaiian waters throughout the year, but most abundant during summer when the fish come fairly close to shore in large schools. In Guam they appear to be most abundant in early spring. Anglers are guided by seabirds that follow the schools and feed on small fishes that the kawakawa flush to the surface. A hard-fighting game fish. Good eating, although not as much in demand as some of the other tuna species.

229.



229. AKU (H), atu (S), skipjack tuna, bonito, *Katsuwonus pelamis* (Linnaeus). DISTRIBUTION: Cosmopolitan in temperate and tropical seas. SIZE: All-tackle record in the Indian Ocean (Baie du Tambeau, Mauritius) is 40 pounds (18.1 kg) with a length of 39 1/4 inches (98.4 cm) in Hawaii, aku average about 18 to 22 pounds (8.2-10.0 kg) in summer; 5 to 12 pounds (2.3-5.4 kg) rest of year. In Guam, this fish usually runs 3 to 7 pounds (1.4-3.2 kg) most of the year; 10 to 12 pounds (4.5-5.4 kg) seasonally. COLOR: When alive, dark metallic blue above, light dusky blue below, dark stripes as indicated. Latter half of dorsal region bright blue with oblique purplish stripes which fade soon after death. When excited or feeding, broad dusky bars sometimes appear on sides. The aku is a schooling, pelagic species common throughout the Pacific Islands, its habits being generally the same as the kawakawa's. Sometimes in certain areas such as off southeastern Lanai, aku are relatively close to shore; more often are found in water 100 fathoms (182.9 m) and deeper. Caught trolling year-round using feathered jigs and other small lures, and located by flocks of seabirds. Best fishing in Hawaii is in summer; in American Samoa from about October to March; and in Guam from February to August. The fish has excellent flavor; is popular for sashimi and dried. Also used as bait for marlin.

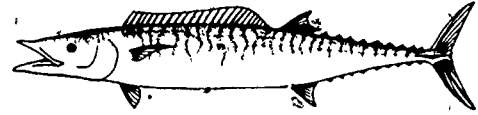
230.



230. TAGI (S), dogtooth tuna, scaleless tuna, white tuna, *Gymnosarda unicolor* (Rüppell). DISTRIBUTION: Tropical Indo-Pacific. SIZE: Reported to reach 250 pounds (113.4 kg), but averages about 20 pounds (9.1 kg). COLOR: Deep purple above, silvery below, finlets yellowish. Tagi is a migratory fish found along the edges of deepwater reefs and submarine ledges where the bottom abruptly drops off into deeper water. It either schools in small groups or is solitary. This fish is not as deep bodied as other members of the tuna family and is distinguished by its large "peglike" teeth and lack of body scales. A fine food and game fish that puts up a hard, jerky fight when hooked. Caught

trolling and also drifting with live, cut, or whole baits. In American Samoa the dogtooth tuna is commonly taken handlining at dusk and at night over 100-fathom (182.8-m) drop offs. Caught only incidentally around Guam and does not occur in Hawaii.

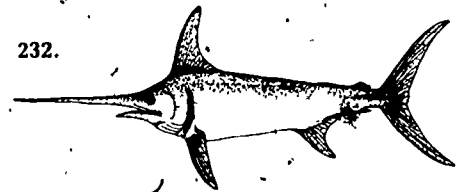
231.



231. ONO (H), tosun (G), wahoo, *Acanthocybium solandri* (Cuvier and Valenciennes). DISTRIBUTION: Tropical Atlantic and Pacific oceans. SIZE: All-tackle record (Cat Cay, Bahamas) is 149 pounds (67.6 kg) with a length of 6 feet 7 1/4 inches (202.6 cm). In Hawaiian and Samoan waters, on average around 30 to 40 pounds (13.6-18.1 kg). In Guam, tosun average about 20 pounds (9.1 kg). COLOR: Generally dark blue above fading into silver below with about 30 purplish-gray bars on sides that flash bright blue when the fish is fighting a hook. Ordinarily a solitary fish that roams the surface waters of the open sea, usually over deep-sea ledges where the bottom drops off sharply. Often seen near floating logs and other debris that provide shelter to small fish upon which the ono feeds. In Hawaii ono are often caught along with 'ahi while trolling over submarine ledges in water 25 to 100 fathoms (45.7-182.9 m) deep. Taken intermittently throughout the year over the billfish grounds off Guam. In American Samoa caught trolling along nearshore 100-fathom (182.9-m) drop offs as well as offshore. The ono is a strong persistent fighter. Its pointed jaws studded with sharp teeth should be carefully avoided. An excellent food fish; aptly named "ono," Hawaiian word meaning "to have sweet taste."

## XIPHIIDAE: SWORDFISHES

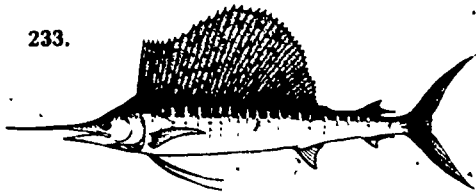
232.



232. 'A'U (H), mekajiki (H), swordfish, broadbill, *Xiphias gladius* (Linnaeus). DISTRIBUTION: Cosmopolitan in tropical and temperate seas. SIZE: All-tackle record (Iquique, Chile) is 1,182 pounds (536.2 kg) with a length of 14 feet 11 1/4 inches (455.4 cm). Averages about 250 pounds (113.4 kg) in Hawaii's commercial catch. COLOR: Varies from metallic purplish to blackish brown to almost black; generally, dark brown. This solitary open-ocean fish is sought by big-game anglers throughout its range but few are ever taken by them in the tropical Pacific. Broadbill are hard to find, hard to hook, and even harder to land. In Hawaii, most are taken by commercial longliners. Sport-caught fish are usually taken slow-trolling or drifting live, whole, and cut baits. Distinguished from the marlins by a sword that is flattened rather than rounded in cross section, and by the rigid dorsal fin that is not retractable as in other billfishes. An excellent food fish.

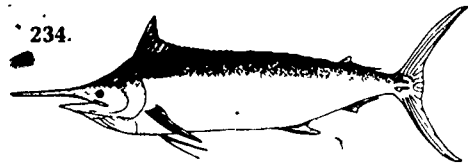
**ISTIOPHORIDAE: BILLFISHES**

233.



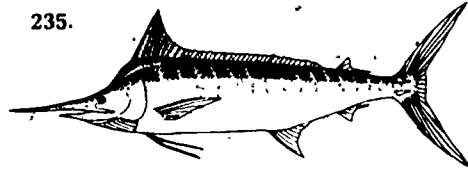
233. A'ULEPE (H), bashokajiki (H), saula-lele (S), sailfish, *Istiophorus platypterus* (Shaw and Nodder). **DISTRIBUTION:** Cosmopolitan in tropical seas. **SIZE:** All-tackle record in the Pacific (Santa Cruz Island, Galapagos) is 221 pounds (100.2 kg) with a length of 129 inches (327.7 cm). In the Pacific Islands sailfish average about 50 pounds (22.7 kg) or less. **COLOR:** Sail cobalt blue to purple; body dark steely blue above and silvery white below; sides with pale-purple vertical bars. □ A pelagic open-ocean fish, often solitary, but known also to occur in small schools or groups, preferring warm-water temperatures between 74° to 88°F. One of the leading game fishes in American Samoa, where it is taken surface trolling with baits and lures year-round. Also taken by sportsmen over the billfish grounds off Guam. Relatively rare in Hawaiian waters, and only occasionally taken by anglers—most are caught by commercial longliners. When swimming, the huge saillike dorsal fin folds into a fleshy groove at its base, but often is raised when the fish is fighting a hook. Its food value is poor, although some fish are smoked.

234.



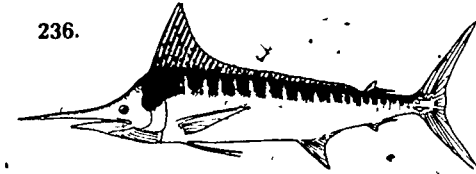
234. A'U (H), shirokajiki (H), black marlin, *Makaira indica* (Cuvier and Valenciennes). **DISTRIBUTION:** Tropical and temperate Pacific and Indian oceans. **SIZE:** All-tackle record (Cabo Blanco, Peru) is 1,560 pounds (707.6 kg) with a length of 14½ feet (442.1 cm). Known to reach 1,800 pounds (816.5 kg); averages about 200 pounds (90.7 kg). **COLOR:** Variable. Most are dark slate blue above, silvery below lateral line. Sometimes a fish may have pale-blue stripes or blue patches on sides that fade quickly after death. □ The black marlin is the largest of all game fishes and highly prized by blue-water anglers, although only occasionally taken around the Hawaiian Islands and off Guam and rarely taken in American Samoa. It is an open-ocean fish and usually solitary. Distinguished from all other billfishes by the rigid pectoral fin that cannot be folded against the body without breaking the joint. It is also wider and deeper around the head than all other billfishes. Caught slow trolling with baits, fast trolling with lures; also drifting and at anchor with fresh or live baits. In Hawaii, the chance of landing one is best while trolling off the Kona coast or off Kauai

235.



235. A'U (H), kurokajiki (H), saula (S), blue marlin, *Makaira nigricans* Lacépède. **DISTRIBUTION:** Tropical and temperate waters of the Indo-Pacific and Atlantic oceans. **SIZE:** All-tackle record (Ritidian Point, Guam) is 1,153 pounds (523.0 kg) with a length of 14 feet 8 inches (447.1 cm); however, an unofficial catch was recorded at over 1,600 pounds (725.8 kg) from off Oahu. In the Pacific Islands, most run about 300 or 400 pounds (136.1-181.4 kg). **COLOR:** When alive, cobalt blue above and silver below; sometimes with pale-blue stripes on sides and blue patches on dorsal area and tail. Colors fade quickly after death and fish becomes a dark slate blue. □ Occasionally confused with the striped marlin, but distinguished by its more robust form and relatively low dorsal fin, of which the longest fin rays are shorter than the greatest depth of the body. Differs from the black marlin in that the pectoral fin can be folded flush to the sides of the body. The blue marlin is the most tropical of marlins, usually occurring in water 70° to 88°F. It is the leading big game fish in the central Pacific and the most abundant sport-caught marlin in Hawaii, American Samoa, and Guam. This extremely powerful and fast-swimming fish feeds mainly on members of the tuna family, particularly the skipjack tuna or aku. Occurs year-round throughout the islands covered here, and in Hawaii is most abundant during the summer. Sport fishing boats troll over bank areas looking for signs of schooling baitfish upon which marlin feed, or troll over offshore ledges where the bottom drops precipitously from 100 to 1,000 fathoms (182.9-1,828.8 m) or more. Trolling with large Hawaiian lures or "konaheads" is especially productive, although live, cut, and artificial baits also are used

236.

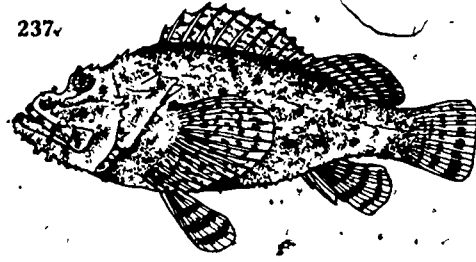


236 A'U (H), naraigi (H), makajiki (H), striped marlin, *Tetrapturus audax* (Philippi). **DISTRIBUTION:** Temperate and tropical waters of the Indo-Pacific. **SIZE:** All-tackle record (Cape Brett, New Zealand) is 415 pounds (188.2 kg) with a

length of 11 feet (335.4 cm). Hawaiian striped marlin may reach up to 150 pounds (68.0 kg), but rarely over 100 pounds (45.4 kg), usually about 80 to 90 pounds (36.3-40.8 kg). **COLOR:** Royal blue above, silvery below; lavender or pale-blue stripes; dorsal and anal fins cobalt blue. These colors are most vivid when the fish is striking or fighting the hook. □ Of the island groups discussed here, this species occurs only in Hawaii, where it is relatively common and the leading billfish taken commercially. It is not, however, caught by sport anglers in as many numbers as the blue marlin, probably because most recreational fishing for billfish in Hawaii occurs during the summer, a time of year when striped marlin are least abundant according to commercial catch records (striped marlin catches tend to peak in spring and fall with few taken during the summer; the largest fish are taken in the fall). It is a beautiful fish and the most acrobatic of the marlins, often making breathtaking leaps into the air in its struggle to free itself from the hook. Usually caught slow trolling with live baits. It is more slender than the blue or hefty black marlin and is distinguished by the high, pointed dorsal fin, the first rays of which are higher than the greatest depth of the body, and a greater number of stripes on the body than the blue marlin. A high-priced food fish in Hawaii, popular for sashimi and smoked.

**SCORPAENIDAE: SCORPIONFISHES**

237.



237. NOHU (H), nohu omakaha (H), scorpionfish, *Scorpaenopsis cacopsis* Jenkins. **DISTRIBUTION:** Hawaiian Islands. **SIZE:** Up to at least 20 inches (51 cm). **COLOR:** Mottled reddish. □ The nohu is usually found on the outer edges of reefs in water over 20 feet (6.1 m) deep. This fish lives on the bottom where it blends in remarkably well with its surroundings, often making short lunges to capture unsuspecting prey. Although it resembles the highly venomous stonefish of the tropical Pacific, there have been no reports of injuries from being spined by the nohu. Taken handlining and by spearing, also in traps. Highly regarded as a food fish.

## Glossary of Terms

- A-FRAME NET** A one-man net fitted on a 6-foot long 'A' frame, used to capture smelt (family Osmeridae) as the fish come inshore to spawn in the surf. The net is held near the pointed end of the "A" and planted down barrierlike in the surf, facing the beach. The fish are caught as they ride the backwash out to sea and are shoveled into the wide end of the net, then shaken back into a sack at the pointed end. (See also SURF NETTING.)
- ANADROMOUS** Refers to fishes that spend most of their lives in salt and brackish waters but ascend rivers to spawn in fresh or nearly fresh water.
- BOTTOMFISHING** Fishing a bait or lure on or near the bottom from an anchored or drifting vessel. The bait is usually weighted and allowed to remain stationary until a fish bites or the angler retrieves it.
- CASTING** Throwing forth a bait or lure, letting out line at each throw and then retrieving it. The bait also can be allowed to sink to the bottom or drift with the current.
- CAST NET** A one-man circular net weighted at the rim with small sinkers and designed to be flung over the water so that it falls face down or dishlike over schools of fishes, entrapping them as it sinks to the bottom. Also called throw net and hand casting net.
- CHARTER BOAT** A fishing boat hired for the exclusive use of one or more anglers, usually for a particular type of fishing. Tackle and bait usually are furnished.
- CHUMMING** A means of attracting fish to the hook by throwing whole or chopped fish or shellfish into the water. Oily fish usually make the best chum. In some areas bread crumbs and corn meal are also used as chum. Live bait chumming is allowed in some areas, prohibited in others.
- CIGUATERA** An illness with symptoms such as diarrhea and paralysis caused by eating certain fishes living in tropical and subtropical regions, usually, where coral reefs are well developed. It is seldom fatal.
- COASTAL** Refers to marine fishes which spend much of their lives within a few miles of shore.
- CONTINENTAL SHELF** A submarine plain extending out from shore to a depth of 100 fathoms (183 meters), beyond which the ocean bottom begins a relatively rapid descent to the deep ocean floor.
- CRAB RING** A crab trap made of coarse mesh webbing attached to two iron hoops, designed to lie flat on the bottom but form a basket when raised. A bag of small mesh netting containing bait (scrap fish or shellfish) is secured to the center of the smaller inner ring to attract the crab and keep it occupied while the trap is pulled out of the water. Popularly used for market (Dungeness) and rock crab along the coast from central California north to Oregon and Washington.
- DIP NET** A conical small-mesh net attached to a rigid frame on a long handle and used to catch fish and other marine animals. Also called a hand net or scoop net.
- DRIFT FISHING** Trailing a weighted or unweighted line with live or dead baits behind a drifting boat. Artificial lures are sometimes used, particularly when "jigging."
- ESTUARY** A partially enclosed body of water having a free connection with the open sea; within it saltwater and freshwater mix.
- FEEDER SALMON** A term usually applied to smaller, sexually immature salmon that concentrate in an area to feed, opposed to large, mature salmon that move into an area prior to spawning.
- FISH TRAP** A portable trap for fish and shellfish usually made of wire mesh fitted over a rigid frame with an opening on one side. Like all traps it is designed so that entry is easier than exit. In the tropical islands fish traps are commonly used to capture a variety of reef animals.
- GILL NET** A curtainlike net suspended in the water with mesh openings large enough to permit only the heads of the fish to pass through, ensnaring them around the gills when they attempt to escape.
- GILL RAKERS** Bony, fingerlike projections on the gill arches, located underneath the gill cover or operculum of bony fishes.
- HANDLINING** Angling with a fishing line held in the hand, without using a rod or reel.
- INLET** A narrow passage of water connecting the open sea with protected coastal and inland water.
- JACK SALMON** A term applied to small, but sexually precocious male salmon (chinook or coho) capable of spawning at 2 years of age. Most male chinook and coho mature a year or more later.
- JETTY FISHING** Fishing from any man-made structure constructed of rock or stone or the like, which projects out into the sea or other body of water.
- JIG** An artificial lure made to simulate live bait. It is usually made with a lead head cast on a single hook and is heavier than most other lures.
- JIGGING** Manipulating a jig to imitate a live bait, thus attracting the fish to the hook. The jig can be lowered vertically or cast some distance away, then jerked upward a short distance. Immediately after this upward jerk the lure is allowed to sink back. This procedure is repeated until a fish is hooked, which is usually on the rise of the jig.
- LURE** An artificial bait.
- MOOCHING** A method of salmon fishing from a drifting or propelled boat. The bait is sunk deep with a heavy sinker then brought upward at an angle as the boat is maneuvered forward a few yards or the line retrieved. The bait is then allowed to sink once again to the bottom and the procedure repeated. Usually whole or cut herring is used and rigged so that it has a spinning action in the water.
- ORIGIN OF FIN** The anterior end of the base of a fin.
- PARTY BOAT** A fishing boat carrying large groups of anglers for a fee and operating on a scheduled basis. Space on the boat is sold to the general public until either the boat is filled to capacity or the scheduled sailing time is reached. The captain usually determines the type of fishing and area to be fished, and the fee usually includes bait but not tackle.
- PELAGIC** Spoken of fish and other sea animals that are more or less independent of the bottom. They are characteristically active swimmers, spending much of their time in mid-water or near the surface.
- PIER FISHING** Fishing from any private or public structure set on pilings that extends over a body of water.
- PLANKTON** A collective term applied chiefly to all those minute and extremely diverse forms of plants and animals that drift with the currents.
- PLUG** A nonspecific term for any artificial lure having a distinct "body" made of wood or plastic and having one or more sets of single, double, or treble hooks attached. Most plugs are designed to wobble or create a commotion in the water when retrieved.
- POKE-POLING** A unique method of rocky-shore fishing for blennies and other crevice-seeking animals that

inhabit deep tide pools along the Pacific coast mainland. The gear is essentially homemade. A long bamboo pole of about 9 to 12 feet is fitted with a semiflexible wire tip to which a nylon-cord leader and hook are attached. The bait, usually mussel or shrimp, is "poked" into crevices under and between large boulders in rocky-surge areas at low tide, then retrieved quickly after the first sharp tug of a fish.

**POPPER** A lightweight artificial lure made of cork or plastic having a concave face that produces a popping sound when twitched on the water's surface. Attracts fish by the commotion it causes in the water.

**SCUTE** A modified fish scale formed into an external bony or horny plate.

**SKIFF FISHING** Recreational fishing from a relatively small private or rented boat that does not carry any paying passengers.

**SPINNER** An artificial lure with metal or plastic blades that whirl on a shaft or a swivel as the lure is retrieved. Attracts fish by the commotion it causes as well as by its flash.

**SPINNING** A method of rod-and-reel fishing distinguished by the use of a fixed-spool reel or "spinning" reel. When casting, the line slips off the end of the reel spool, which does not revolve as does a conventional bait-casting reel spool. Spinning gear makes it easier to cast very light lures and

avoid backlashes in the line.

**SPOON** An artificial lure with a curved or dished out body that wobbles but does not revolve. Attracts fish by its movements as well as color.

**STILL FISHING** Fishing natural baits from shore, pier, or anchored boat. Usually the bait is fished on or near the bottom, although sometimes held off the bottom with a float.

**SQUIDDING** Casting metal lures called "squids" into the surf. This term is also used in Hawaii to describe fishing for octopus, called "squid" by islanders. When "squidding," one walks out across the reef armed with a spear, looking for octopus with the aid of a glass-bottomed box. Lights are used when fishing at night for "night squid."

**SURF FISHING** Casting a bait or lure along sandy beaches for fishes that frequent the surf zone. A long flexible rod is usually used to help hurl the bait a maximum distance and to hold the line high enough to clear the breakers. Also called surf casting.

**SURF NETTING** A unique type of Pacific coast fishing using special one- or two-man nets to catch smelt along sandy beaches. (See also A-FRAME NET.) Generally, there are two separate fisheries—one during the daylight hours for day or surf smelt, and the other at night (and often on the same beaches) for night smelt. The fish are strained from receding breakers as they come into shallow water to

spawn, usually a few hours just before and after high tide.

**SURROUND NET** A beach seine, typically a long net having floats along the upper edge and weights along the bottom, used to capture an assortment of fishes in shallow protected water. The net is held in place on the shore at one end while the other end is pulled out around the fish to another point farther down the shore line. The net is then pulled slowly to the beach enclosing the fish in a decreasing semicircle. In Hawaii, large-group surround net fishing is called "hukilau."

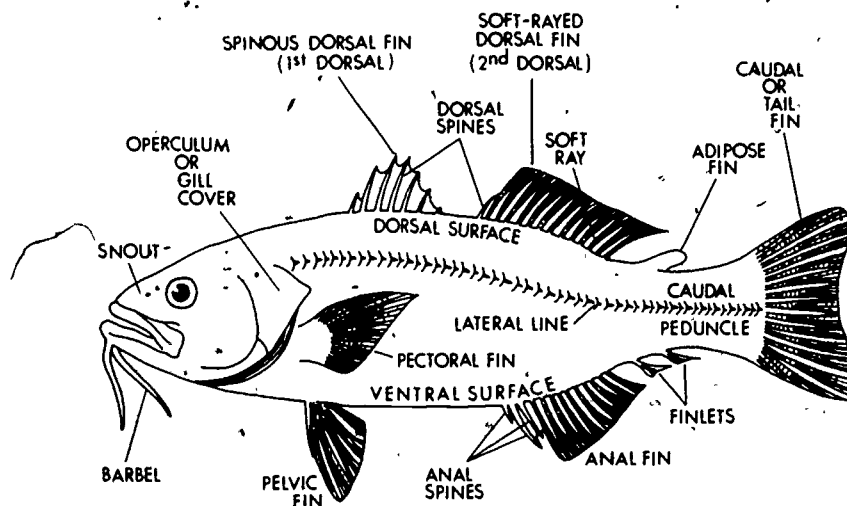
**SPEAR FISHING** Impaling fish with a spear from either above or below the water's surface.

**TORCH FISHING** Locating or attracting marine animals at night with a light held above the surface of the water. Torch fishing usually takes place on calm dark nights over shallow reefs at low tide, and when the animal is located, it is either speared or netted.

**TROLLING** Trailing artificial or natural baits behind a moving boat. The bait can be made to skip along the surface or trailed below at any depth to just above the bottom. A bait or lure trailed behind an angler walking along a pier, bridge, or breakwater is also called trolling.

**WATER COLUMN** Spoken of the water from the surface to the bottom at a given point.

HYPOTHEICAL FISH SHOWING ANATOMICAL TERMS



## Index to Common Names of Fishes

The following is on alphabetical listing of some of the common fish names used by marine anglers who fish along the Pacific coast and around the Pacific Islands. Many times confusion arises when one common fish name such as "snapper" or "bass" refers to more than one species, or when more than one name is used for the same species depending upon the geographical area fished and sometimes even the size of the fish itself. The purpose of this index is to help locate information on the fish described in the Marine Game Fish section. The numbers in this index are not page numbers; they refer to the paragraph numbers preceding each species description on the two fish lists.

### A

'a'ala'ihu 214  
 aaga 213  
 'a'awa 210  
 achuman 173  
 afolu 201  
 agua 158  
 aguas 218  
 'aha'aha 160  
 'ahi 227  
 aholehole 167  
 aji 174  
 aku 229  
 akule 174  
 'alalaua 170  
 albacore 71  
     false 228  
 Allison tuna 72  
 alu 220  
 'ama'ama 218  
 amberjack  
     for yellowtail 37  
     greater 172  
 anchovy, northern 147  
 asi 227  
 aso'ama 185  
 ata'ata 164  
 Atka mackerel 113  
 atu 229  
 atulai 174  
 atule 174  
 a'u 232, 234-236  
 a'u-lepa 233  
 awa 158  
     wa 156  
     ua 156

'aweoweo 169

### B

barberpole  
     for flag rockfish 107  
     for treefish 106  
 barrachona 95  
 barracuda  
     California 69  
     great 220  
     Japanese 220  
     Pacific 69  
 barred surfperch 51  
 barred sand bass 3  
 barry 69  
 bashokajiki 233  
 bass  
     barred sand 35  
     bigeye 150  
     black  
         for black croaker 47  
         for black rockfish 80  
     black sea 32  
     blue  
         for black croaker 47  
         for opaleye 49  
     bull 33  
     calico 33  
     giant sea 32  
     ground 35  
     kelp 33  
     mountain 167  
     rock 31  
     sand 35  
     spotted sand 34  
     striped 31  
     sugar  
         for barred sand bass 35  
         for olive rockfish 82  
 bass rockfish  
     for black rockfish 80  
     for olive rockfish 82  
 bat ray 9  
 bay perch 65  
 bigeye bass 150  
 bigeye, red 169  
 bigeye rockfish 105  
 bigeye scad 174  
 big skate 140  
 billfish  
     see marlin, swordfish, sailfish  
 black bass  
     for black croaker 47  
     for black rockfish 80  
 blackcod 109  
 black croaker 47  
 black marlin 234  
 blackmouth 12  
 black perch  
     for black surfperch 55  
     for opaleye 49  
 black rockfish 80  
 black sea bass 32  
 black skipjack tuna 228

blacksmith 151  
     for opaleye 49  
 black snapper 80  
 blackspot wrasse 210  
 black surfperch 55  
 black ulua 180  
 blancoillo 36  
 blenny eel 70  
 blueback  
     for cutthroat trout 17  
     for sockeye salmon 15  
 blueback salmon 15  
 blue bass  
     for black croaker 47  
     for opaleye 49  
 blue cod  
     for cabezon 116  
     for sablefish 109  
 blue crevally 178  
 blue-eye perch 49  
 bluefin tuna 73  
 bluefish  
     for blue rockfish 79  
 bluelined snapper 194  
 blue marlin 235  
 blue perch  
     for blue rockfish 79  
     for halfmoon 48  
 blue rockfish 79  
 blue shark 3  
 blue spotted grouper 162  
 blue ulua 178  
 bocaccio 97  
 boca dulce 221  
 bocalao 112  
 bolina 89  
 bonefish 157  
 bonehead 74  
 bonito, Pacific 74  
     for aku 229  
     for kawakawa 228  
 bonito shark 2  
 borracho 95  
 broadbill 76, 232  
 broadfin flounder 128  
 brown Irish lord 119  
 brown rockfish 89  
     for quillback rockfish 90  
 brown smoothhound 4  
 bua 195  
 buffalo cod 112  
 buffalo sculpin 120  
 bull bass 33  
 bull cod 116  
 bullfish 116  
 bullhead  
     for cabezon 116  
     for Pacific staghorn sculpin 118  
 bull trout 19  
 butterflyfish  
     for Pacific pompano 78  
     for sablefish 109  
 buttersole 135  
 button perch 49

C

cabezon 116  
 calico bass 33  
 calico rockfish 87  
 calico surfperch 52  
 California barracuda 69  
 California corbina 43  
 California grunion 30  
 California halibut 121  
 California lizardfish 148  
 California moray 144  
 California scorpionfish 108  
 California sheephead 66  
 California skate 141  
 California whiting 43  
 canary rockfish 98  
 candlefish 22  
 cardinalfishes 171  
 Catalina croaker 42  
 Catalina perch  
   for halfmoon 48  
   for opaleye 49  
 Catalina salmon 41  
 cat shark 6  
 cefalutano 86  
 char. Oregon 19  
 chefra 104  
 cherna 80  
 cherne 85  
 chilipepper 96  
 China croaker  
   for black croaker 47  
   for sargo 40  
 Chinafish 100  
 China rockfish 86  
 chinook salmon 12  
 chub mackerel 75  
 chub, sea 206  
 chucklehead 103  
 chum salmon 16  
 C-O sole 134  
 coal cod 109  
 codalargo 98  
 cod  
   black  
     for sablefish 109  
   blue  
     for cabezon 116  
     for sablefish 109  
   buffalo 112  
   bull 116  
   coal 109  
   cultus 112  
   green 112  
   johnny 96  
   Pacific 25  
   true 25.  
 coho salmon 13  
 Columbia river trout 17  
 convictfish  
   for flag rockfish 107  
   for treefish 106  
 convict tang 222  
 copper rockfish 81  
 corbina, California 43  
 corsair 101  
 corvina 43  
 cowcod 104  
 cowfish 104  
 cow rockfish 104  
 crevalle 177  
 crevally, bus 178  
   jack 177  
   thread 175  
 croaker  
   black 47  
   Catalina 42  
   china  
     for black croaker 47  
     for sargo 40  
   den 44  
   otfin 44

white 45  
 yellow 42  
   for white seabass 41  
 cultus cod 112  
 curlfin sole 132  
 cutthroat trout (sea-run) 17

D

day smelt 20  
 diamondback 124  
 diamond turbot 125  
 dodo 208  
 dogfish, spiny 139  
 dog salmon 16  
 dogtooth tuna 230  
 Dolly 19  
 Dolly Varden 19  
 dolphin 39, 183-184  
 dolphin, pompano 184  
 dorado 39  
 Dover sole 137  
 dude 101  
 dusky rockfish 92

E

eagle rays 9  
 eel  
   blenny 70  
   California moray 144  
   monkeyface 70  
     for monkeyface prickleback 70  
     (Pacific Islands) 159  
 ehu 191  
 English sole 129  
 eulachon 22

F

fafaet 198  
 fall salmon 16  
 false albacore 228  
 false mullet 219  
 fantail 98  
 fathhead 66  
 feloitega 196  
 filone 98  
 filoa 199  
 flag rockfish 107  
 flesh-colored rockfish 93  
 flounders, lefteye 121, 122  
 flounders, righteye 123-137  
 flounder, broadfin 128  
   fringe 130  
   pointed-nose 129  
   roundnose 127  
   starry 124  
   see also sole, turbot, halibut, sanddab  
 fo 171  
 fox shark 1  
 fringed greenling 111  
 fringe flounder 130  
 fringehead, onespot 153  
 funai 194

G

gadao 162, 163, 165, 166  
 gallo 104  
 garrupa 83  
 gatala 163, 165, 166  
 gatala moana 162  
 genuine red 95  
 gialoto 85  
 giant kelpfish 152  
 giant sea bass 32  
 gindai 193  
 giolo 85  
 goatfish(es) 201-205  
   red 202  
   spot 201  
 golden croaker 44  
 gopher 86  
 gopher rockfish 93  
   for kelp rockfish 83

grass rockfish 84  
 gray reef shark 154  
 gray shark 154  
 gray smoothhound 5  
 gray snapper 185  
 great barracuda 220  
 greater amberjack 172  
 greenback 75  
 green cod 112  
 greenling, fringed 111  
   kelp 110  
   painted 115  
   red 111  
   rock 111  
   whitespotted 114  
 greenling seatrout 110  
 green parrotfish 215  
 green snapper  
   for filoa 199  
   for yellowtail rockfish 85  
 greenspotted rockfish 103  
 greenstriped rockfish 102  
 green sturgeon 11  
 ground bass 35  
 grouper(s) 162-166  
   blue spotted 162  
   sea 97  
   union, California 30  
 guili 206  
 guitarfish(es) 7, 8

H

hagi 182  
 hahalalu 174  
 hake, Pacific 27  
 halalu 174  
 halfmoon 48  
 halibut, California 121  
   northern 123  
   Pacific 123  
   southern 121  
 hammerhead, scalloped 155  
 Hawaiian salmon 181  
 hawkfish, spotted 209  
 herring, Pacific 145  
   for quenefish 46  
 hinalea 213  
   for 'a'awa 210  
 hinalea lauili 214  
 hling 174  
 hollywood 107  
 hooigan 22  
 hornyhead turbot 126  
 horse mackerel 38  
 hoshi ulua 178  
 houndfish 160  
 humpback parrotfish 217  
 humpback salmon 14  
 humpy 66

I

i'a mania 166  
 i'a sina 201  
 ili'ilia segi 225  
 illioli 178  
 Irish lord, red 117  
   brown 119  
 ise 160

J

jack(s) 37, 38, 173-182  
   spotted 178  
   star 178  
 jack crevally 177  
 jack mackerel 38  
 jacksmelt 28  
 Japanese barracuda 220  
 johnnies 96  
 johnny cod 96  
 juarel 37



## K

kagami ulua 175  
 kahala 172  
 kakaka 196  
 kaku 220  
 kala 225  
 kalikali 189  
   pink 189  
   yellowtail 187  
 kama 181  
 kawalea 220  
 kawakawa 228  
 keeltail needlefish 160  
 kelp bass 33  
 kelpfish, giant 152  
   for kelp greenling 110  
 kelp greenling 110  
 kelp rockfish 83  
   for grass rockfish 84  
 kelp salmon 82  
 kelp surfperch 62  
 kelp yellowtail 82  
 kicho 222  
 kiluus 155  
 king 12  
 kingfish 45  
 king salmon 12  
 kumu 204  
 kupipi 208  
 kurokajiki 235

## L

ladyfish 156  
 lae 182  
 lai 182  
 lansi 171  
 leatherback 182  
 leatherjacket 182  
 lehi 192  
 lemon sole 129  
 leopard shark 6  
 liguan 218  
 lihlok 199  
 ling 112  
 lingcod 112  
 little mahimahi 184  
 little tunny 228  
 lizardfish, California 148  
 loaia 200  
 longfin smelt 23  
 longfin sole 131  
 longfin tuna 71  
 longnose skate 142  
 lupu, see jacks, 177-180

## M

ma'au 174  
 mackerel  
   Atka 113  
   chub 75  
   horse 38  
   jack 38  
   Pacific 75  
   Spanish  
     for jack mackerel 38  
     striped 75  
     for akule 174  
     for sablefish 109  
 mackerel scad 173  
 mahimahi 39, 183  
   little 184  
 makajiki 236  
 mako, shortfin 2  
 mala'i 198  
 malau 161  
 malauli 178  
 malie 154  
 malma trout 19  
 malu 203  
   gas 169  
   mu 200  
   207

manaloa 206  
 manini 222  
 mano 154  
 mano kihikihi 155  
 maomao 207  
 marbled sculpin 116  
 marlin  
   black 234  
   blue 235  
   striped 77, 236  
 masimasi 183  
 mata-i-taliga 155  
 matanhagon 200  
 mata-pula 169  
 mekajiki 232  
 mempachi ulua 179  
 mempachi 161  
 midshipman  
   northern 149  
   plainfin 149  
 milkfish 158  
 moano 205  
 moi 221  
 moi-li'i 221  
 monkeyface eel 70  
 monkeyface prickleback 70  
 moonlight Annie 171  
 moonlight fish 171  
 moray  
   California 144  
   (Pacific Islands) 159  
 mottled sanddab 122  
 mountain bass 167  
 mu

  for *Lutjanus bohar* 197  
   for *Monotaxis grandoculus* 200  
 mullet 218  
   false 219  
   striped 218  
 mumu moaga 200

## N

narangi 236  
 needlefish(es) 160  
   keeltail, 160  
 nenue 206  
 nenue pari 206  
 nero 80  
 night smelt 21  
 nohu 237  
 nohu amakaha 237  
 northern anchovy 147  
 northern halibut 123  
 northern midshipman 149

## O

oama 201  
 ocean whitefish 36  
 o'io 157  
 oliveback rockfish 105  
 olive rockfish 82  
 omaka 176  
 omilu 178  
 omilumilu 178  
 onaga 190  
 onespot fringehead 153  
 ono 201  
 o'opu-kai 209  
 opakapaka 186  
   yelloweye 188  
 opaleye 49  
 opelu 173  
 opelu-mama 173  
 orange rockfish 98  
 orange-spotted rockfish 90  
 Oregon char 19  
 oshi 178

Pacific barracuda 69  
 Pacific bonito 74  
 Pacific cod 25

Pacific hake 27  
 Pacific halibut 123  
 Pacific herring 145  
 Pacific mackerel 75  
 Pacific pompano 78  
 Pacific sanddab 122  
 Pacific sardine 146  
 Pacific staghorn sculpin 118  
 Pacific sturgeon 10  
 Pacific threadfin 221  
 Pacific tomcod 26  
 painted greenling 115  
 paka, pink 186  
 pake'awa 156  
 pake ulua 179  
 palani 224  
 palu 190  
 papio, see jacks, 177-180  
 parrotfish, green 215  
   humpback 217  
 pa'u'u 177  
 perch

  bay 55  
   black  
   for black surfperch 55  
   for opaleye 49  
   blue  
   for blue rockfish 79  
   for halfmoon 48  
   blue-eye 49  
   button 49  
   Catalina  
   for halfmoon 48  
   for opaleye 49  
   silver  
   for aholehole 167  
   for silver surfperch 54  
   see also surfperch(es)

  petrale sole 127  
   pile surfperch 58  
   pink kalikali 189  
   pink paka 186  
   pink salmon 14  
   pink snapper 186  
   pink surfperch 65  
   plainfin midshipman 149  
   pointed-nose flounder 129  
   pompano dolfin 184  
   pompano, Pacific 78  
   po'o-pa'a 209  
   po'ou 211  
   popeye rockfish 105  
   porgy 50  
   potbelly 99  
   prickleback, monkeyface 70  
   priestfish 79  
   pualu 223  
   puhi 159  
   puhi-paka 159  
   pulus 160  
   pusi 159

## Q

queenfish 46  
 quillback rockfish 90  
 Quinnt salmon 12

## R

rabbitfish 226  
 rainbow runner 181  
 rainbow surfperch 60  
 rainbow trout (sea-run) 18  
 rasher 95  
 rasphead rockfish 99  
 ray, bat 9  
 redbanded rockfish 107  
 red bigeye 169  
 redfish 66  
 red goatfish  
   for kumu 204  
   for weke'ula 202

red greenling 111  
red Irish lord 117  
red-margined sea perch 195  
red rock cod (see rockfishes, red)  
red salmon 15  
red snapper  
    for mala'i 198  
    for onaga 190  
    for vermilion rockfish 95  
    for yelloweye rockfish 99  
    for canary rockfish 98  
redtail surfperch 50  
red-spotted trout 19  
red weke 202  
reina 102  
rex sole 131  
rock bass  
    for striped bass 31  
rock cod (see rockfishes)  
rockfish(es) 79-106  
    barberpole 107  
    for treefish 106  
    bass  
        for olive rockfish 82  
        for black rockfish 80  
    bigeye 105  
    black 80  
    blue 79  
    bocaccio 97  
    brown 89  
        for quillback rockfish 90  
    calico 87  
    canary 98  
    chilipepper 96  
    china 86  
    copper 81  
    cow 104  
    dusky 92  
    flag 107  
    flesh-colored 93  
    gopher 93  
        for kelp rockfish 83  
    grass 84  
    greenspotted 103  
    greenstriped 102  
    hollywood 107  
    kelp 83  
        for grass rockfish 84  
    olive 82  
    oliveback 105  
    orange 98  
    orange-spotted 90  
    popeye 105  
    quillback 90  
    rasphead 99  
    red  
        for canary rockfish 98  
        for vermilion rockfish 95  
        for yelloweye rockfish 99  
    redbanded 107  
    rosy 101  
    silvergray 91  
    smallmouth 94  
    Spanish flag 107  
    speckled 90  
    spotted 100  
    squarespot 94  
    starry 100  
    stripetail 105  
    turkey-red 99  
    vermilion 95  
    widow 88  
    whitebelly 81  
    yellow-backed 90  
    yelloweye 99  
    yellowtail 85  
rock greenling 111  
rock sole 128  
rock trout 110  
rock wrasse 67  
    152

roosterfish  
    for cow rockfish 104  
rosy rockfish 101  
roundnose flounder 127  
round stingray 143  
rubberhp surfperch 57  
rudderfish 206  
runner, rainbow 181  
    for lae 182

S

sablefish 109  
saddle wrasse 214  
sailfish 233  
salema 150  
salmon, blackmouth 12  
    blueback 15  
    Catalina 41  
    chinook 12  
    chum 16  
    coho 13  
    dog 16  
    fall 16  
    Hawaiian 181  
    humpback 14  
    king 12  
    pink 14  
    Quinnat 12  
    red 15  
    silver 13  
    sockeye 15  
    spring 12  
    tyee 12  
    white 37  
salmonete 201  
salmonete, acho 203  
salmonete manining 202  
salmon grouper 97  
salmon trout  
    for coho salmon 13  
    for Dolly Varden 19  
    for steelhead (rainbow trout) 18  
sand bass 35  
    spotted 34  
    barred 35  
sanddab  
    mottled 122  
    Pacific 122  
sand shark 154  
sand sole 130  
Santa Maria 103  
sapatu 220  
sardine, Pacific 146  
sargo 40  
sasag 161  
sasele 168  
saula 235  
saula-lele 233  
saurel 38  
savani 194  
scacciatale 101  
scad  
    bigeye 174  
    mackerel 173  
scaleless tuna 230  
scalloped hammerhead 155  
scomoda 84  
scooter 69  
scorpionfish 237  
    California 108  
scratch-tail 101  
sculpin  
    buffalo 120  
    marbled 116  
    Pacific staghorn 118  
    smooth 118  
    for California scorpionfish 108  
seabass  
    white 41  
    see also bass  
sea chub 48-49, 206

sea perch  
    red margined 195  
    yellow-and-blue 194  
    see also surfperch(es)  
sea-run cutthroat trout 17  
sea-run rainbow trout 18  
seatrout  
    for cutthroat trout 17  
    for Dolly Varden 19  
    for greenling 110  
    for steelhead 18  
    for white seabass 41  
señorita 68  
serena 102  
sergeant major 208  
sesjun 226  
shark  
    blue 3  
    bonito 2  
    brown smoothhound 4  
    cat 6, 138  
    fox 1  
    gray 154  
    gray reef 154  
    gray smoothhound 5  
    leopard 6  
    sand 154  
    scalloped hammerhead 155  
    shortfin mako 2  
    shovelnose 7  
    swell 138  
    swiveltail 1  
    thresher 1  
    whaler 154  
sharpnose surfperch 64  
sheephead, California 66  
shiner surfperch 64  
shiner, yellow 61  
shirokajiki 234  
shoffies 107  
shortfin mako 2  
shovelnose guitarfish 7  
shovelnose shark 7  
silvergray rockfish 91  
silver perch  
    for aholehole 167  
    for silver surfperch 54  
silver salmon 13  
silversides  
    for coho salmon 13  
    for rainbow trout (steelhead) 18  
    see also smelt(s)  
silver smelt 20  
silver surfperch 54  
skate  
    big 140  
    California 141  
    longnose 142  
skil 109  
skipjack tuna 229  
    black 228  
slender sole 136  
smallmouth rockfish 94  
smelt(s) 20-24  
    day 20  
    longfin 23  
    night 21  
    silver 20  
    surf 20  
    whitebait 24  
    for eulachon 22  
    for jacksmelt 28  
    for topsmelt 29  
smooth sculpin 118  
snapper(s) 185-198  
    black  
        for black rockfish 80  
    blue-lined 194  
    gray 185  
    green  
        for filoa 199  
        for yellowtail rockfish 85

pink 186  
 red  
   for canary rockfish 98  
   for mala'i 198  
   for onaga 190  
   for vermilion rockfish 95  
   for yelloweye rockfish 99  
 yellow  
   for canary rockfish 98  
   see also rockfish(es)  
 sockeye salmon 15  
 sole  
   butter 135  
   C-O 134  
   curlfin 132  
   Dover 137  
   English 129  
   lemon 129  
   longfin 131  
   petrale 127  
   rex 131  
   rock 128  
   sand 130  
   slender 136  
   southern halibut 121  
   Spanish flag 107  
   Spanish mackerel  
     for jack mackerel 38  
   \*speckled rockfish 90  
   spiny dogfish 139  
   spotfin croaker 44  
   spotfin surfperch 63  
   spot goatfish 201  
   spotted hawkfish 209  
   spotted jack 178  
   spotted rockfish 100  
   spotted sand bass 34  
   spotted turbot 133  
   spot weke 201  
   spot wrasse 210  
   spring salmon 12  
   \*squarespot rockfish 94  
   squirrelfish(es) 161  
   staghorn sculpin, Pacific 118  
   star jack 178  
   starry flounder 124  
   starry rockfish 100  
   steelhead 18  
   \*stingray, round 143  
   strawberry rock cod 102  
   striped bass 31  
   striped mackerel 75  
   striped marlin 77, 236  
   striped mullet 218  
   striped surfperch 56  
   striper 31  
   stripetail rockfish 105  
   sturgeon  
     green 11  
     Pacific 10  
     white 10  
 sugar bass  
   for barred sand bass 35  
   for olive rockfish 82  
 surffish  
   for California corbina 43  
   for smelt 20, 21  
 surfperch  
   barred 51  
   black 55  
   calico 52  
   kelp 62  
   pile 58  
   pink 65  
   rainbow 60  
   redtail 50  
   rubberlip 57  
   sharpnose 64  
   shiner 61  
   silver 54

spotfin 63  
 striped 56  
 walleye 53  
 white 59  
 surf smelt 20  
 surgeonfish(es) 222-225  
 swell shark 138  
 swiveltail 1  
 swordfish 76, 232

T

ta'ape 194  
 tagi 230  
 tagafi 197  
 taiva uli'uli 196  
 tambor 99  
 tang, convict 222  
 tangisun 212  
 tanifa 154  
 tarakityos 177, 178-180  
   see jacks  
 tarakito 177, 178-180  
   see jacks  
 tataga 225  
 teau 201  
 ten-pounder 156  
 thornback 8  
 thread crevally 175  
 threadfin, Pacific 221  
 thresher shark 1  
 tiger 107  
 titugi 159  
 toau 195  
 tomcod  
   Pacific 26  
   for young bocaccio 97  
   for white croaker 45  
 topsmelt 29  
 tosun 231  
 treefish 106  
 trout  
   blueback 17  
   bull 19  
   Columbia River 17  
   cutthroat (sea-run) 17  
   Dolly Varden 19  
   malma 19  
   rainbow (sea-run) 18  
   red-spotted 19  
   rock 110  
   salmon  
     for coho salmon 13  
     for Dolly Varden 19  
     for steelhead (rainbow trout) 18  
   steelhead 18

true cod 25  
 tuna

albacore 71  
 Allison 72  
 black skipjack 228  
 bluefin 73  
 dogtooth 230  
 longfin 78  
 scaleless 230  
 skipjack 229  
 white 230  
 yellowfin 72, 227  
 tunny, little 228  
 turbot  
   diamond 125  
   hornyhead 126  
   spotted 133  
 turkey-red rockfish 99  
 turkey rock 99  
 tyee 12

U

ugupao  
   for palani 224  
   for pualu 223

uhu

  for *Scarus perspicillatus* 215  
   for *Scarus dubius* 216  
 uku 185  
 ula oa 202  
 'ula'ula 191  
 'ula'ula koae 190  
 ulua  
   black 180  
   blue 178  
   hoshi 178  
   kagami 175  
   mempachi 179  
   pake 179  
   white 175  
 ulua kihikihi 175  
 umatan 168  
 ume 225  
 unicornfish 225  
 uouoa 219  
 'upapalu 171  
 'u'u 161

V

vava sui 196  
 vermilion rockfish 95  
 vete 202  
 viuva 88

W

wahoo 231  
 walleye surfperch 53  
 weke  
   red 202  
   spot 201  
 weke-a'a 201  
 weke-ula 202  
 whaler 154  
 whitebait smelt 24  
 whitebelly rockfish 81  
 white croaker 45  
 whitefish, ocean 36  
 white salmon 37  
 white seabass 41  
 whitespotted greenling 114  
 whitesurfperch 59  
 white sturgeon 10  
 white tuna 230  
 white ulua 175  
 whitening  
   for ocean whitefish 36  
   for California corbina 43  
 widow rockfish 88  
 wrasse(s) 66-68, 210-214  
   blackspot 210  
   rock 67  
   saddle 214  
   spot 210

Y

yellow-and-blue seaperch 194  
 yellow-backed rockfish 90  
 yelloweye opakapaka 188  
 yelloweye rockfish 99  
 yellowfin croaker 42  
 yellowfin tuna 72, 227  
 yellow shiner 61  
 yellow snapper  
   for canary rockfish 98  
 yellowtail 37  
   kelp 85  
   for yellowtail rockfish 85  
 yellowtail rockfish 85  
 yellowtail kalikali 187

Z

zebra 75

## Acknowledgments

We acknowledge with appreciation the assistance of the following agencies and persons in the development of this publication. Much of the information was assembled during the period 1960-63 and published in 1963 by the U.S. Bureau of Sport Fisheries and Wildlife as the "Atlas of Eastern Pacific Marine Game Fishing" (Circular #174). This information has been updated and supplemented. Major contributors of information for the previous "Atlas" and for this Guide are listed as follows: Alaska Fish and Game Department, American Samoa Office of Marine Resources, California Department of Fish

and Game, Guam Division of Fish and Wildlife, Hawaii Division of Fish and Game, Oregon Fish Commission, Washington Department of Fisheries, and Washington Department of Game. Individuals assisting are listed below.

To the many sport fishing boat and party boat skippers and operators, members of government agencies, and interested sport fishermen who have contributed, and to John Gottschalk for his support and guidance, we wish to express our sincere appreciation. We also acknowledge the invaluable assistance of John Smiles and NOAA Visual Services cartographers Jim Schick and Jim Goodlin, who prepared the detailed fishing charts. Special thanks go to Dan Miller who took time out from his busy schedule to review the complete and very lengthy manuscript.

Norman Abramson  
Johanna Alban  
Charles Anderson  
Tom Arcoleo  
Robert Ayers  
Orville Ball  
Fred Berry  
Peter Boxford  
Robert Brown  
Raymond Breuser  
Raymond Buckley  
Eugene Burke  
Jerry Butler  
Charles Campbell  
Larry Carrola  
William Craig  
Roland Crisafi  
Lillian Dempster  
Gene Deschamps  
Jim Dixon  
Kenji Ego  
Frank Felter  
John Fortune  
Ronald Garvey  
Wally Giguère  
Daniel Gotshall

Richard Haley  
Frank Haw  
Dave Heanes  
Frank Hester  
Thomas Hida  
Edmund Hobson  
Albert Ignacio  
Isaac Ikehara  
Robert Iversen  
Harry Kami  
Richard Kanayama  
Susumu Kato  
James Kikuchi  
Stanley Kubik  
Al Lasater  
Clayton Lewis  
Blake Eightfoot  
Robert Loeffel  
Rufo Lujan  
Mike Lund  
Thomas Manar  
Sharon Marchese  
Ervin Martingale  
Chester Mattson  
Robert Meigs  
John McCosker

Eddie McEwen  
Alan McGie  
Daniel Miller  
Howard Minor  
Charles Morgan  
Ed Neal  
Nancy Nelson  
Edwin Niska  
William Nott  
Henry Okamoto  
Eric Onizuka  
Russ Orrell  
Jay Quast  
John Randall  
Russell Redick  
Harry Rietze  
Tom Riley  
Ron Rogers  
Henry Sakuda  
John Severa  
Paul Shiota  
Richard Shomura  
Robert Simpson  
Rose Simpson  
William Smoker  
C. Dale Snow

Joseph Souza  
Don Stevens  
Shirley Stribling  
Jeannette Struhsaker  
Paul Struhsaker  
Barbara Sumida  
Stanley Swerdloff  
Gerald Talbot  
Michio Takata  
Richard Thompson  
Spencer Tinker  
Frank Van Hulle  
Jack Van Hying  
William Ver Brugge  
Bill Vogler  
Charles Walters  
Ron Warner  
Percy Washington  
Ray Welsh  
Henry Wendler  
Sigrid Westerheim  
Ed Whitesel  
Francis Williams  
Charles Yamamoto  
Howard Yoshida  
Parke Young  
Barbara Zimmer

## References

- ALASKA DEPARTMENT OF FISH AND GAME.**  
(undated). Alaska sport fishing guide. Sport Fish Div., Alaska Dep. Fish Game. 84 p.
- ANDREWS, R.**  
1965. Investigation of the Sitka area saltwater sport fish harvest. In Annu. Rep. Prog. 1964 - 1965. Fed. Aid Fish Restor. 6:9-21 Alaska Dep. Fish Game. Proj. F5-R-6. Sport Fish. Invest. Alaska.
- APLIN, J. A.**  
1967. Biological survey of San Francisco Bay 1963-1966. Calif. Dep. Fish Game. MRO (Marine Resources Operations) Ref. No. 67-4. 131 p.
- BAADE, R. T.**  
1965. Investigation of the lower southeast Alaska saltwater sport fish harvest. In Annu. Rep. Prog. 1964 - 1965. Fed. Aid Fish Restor. 6:89-96. Alaska Dep. Fish Game. Proj. F5-R-6. Sport Fish Invest. Alaska.
- BAILEY, R. M., J. E. FITCH, E. S. HERALD, E. A. LACHNER, C. C. LINDSAY, C. R. ROBINS, and W. B. SCOTT.**  
1970. A list of common and scientific names of fishes from the United States and Canada. 3rd ed. Am. Fish. Soc., Spec. Publ. 6. 150 p.
- BARNHART, P. S.**  
1936. Marine fishes of southern California. Univ. Calif. Press. Berkeley. 209 p.
- BAXTER, J. L.**  
1960. Inshore fishes of California. Calif. Dep. Fish Game. Sacramento. 80 p.
- CALIFORNIA DEPARTMENT OF FISH AND GAME.**  
1973. Ocean fishing map of Orange and San Diego Counties. Calif. Dep. Fish Game. Sacramento. Map. text, tables.
- CAMPBELL, C. J., and F. E. LOCKE.** (editors).  
1960. 1959 Annual Report. Oregon State Game Comm., Fish. Div., 320 p.  
1961. 1960 Annual Report. Oregon State Game Comm., Fish. Div., 355 p.  
1970. 1969 Annual Report. Oregon State Game Comm., Fish. Div., 149 p.
- CANNON, R.**  
1953. How to fish the Pacific coast. Lane Publ. Co., Menlo Park. 337 p.
- CARTER, B.**  
1969. Fishing in Hawaii. Hawaii Visit. Bur., Honolulu. (pam.)
- CLEMENS, W. A., and G. V. WILBY.**  
1961. Fishes of the Pacific coast of Canada, 2nd ed., revised. Fish. Res. Board Can., Bull. 68. 443 p.
- de SYLVA, D. P.**  
1974. A review of the world sport fishery for billfishes (Istiophoridae and Xiphiidae). In R. S. Shomura and F. W. Williams (editors). Proceedings of the International Billfish Symposium, Kailua-Kona, Hawaii, 9-12 August 1972, Part 2. Review and Contributed Papers. p. 12-33. NOAA Tech. Rep., NMFS SSRF-675.
- ERIKSON, C. E.**  
1960. Sunset sportsman's atlas. San Francisco Bay and Delta area. Lane Book Co., Menlo Park. 32 p.
- FITCH, J. E.**  
1958. Offshore fishes of California. Calif. Dep. Fish Game. Sacramento. 79 p.
- FITCH, J. E., and R. J. LAVENBERG.**  
1971. Marine food and game fishes of California. Univ. Calif. Press. Berkeley. 179 p.
- FREEMAN, B. L., and L. A. WALFORD.**  
1974. Anglers' guide to the United States Atlantic coast. Fish. fishing grounds & fishing facilities. Section I. Passamaquoddy Bay, Maine to Cape Cod. U.S. Dep. Commer., NOAA. Natl. Mar. Fish. Serv., 15 p.
- FREUND, G.** (undated). Sport fishing guide to Hawaii. Distributed by Pacific Sports, Honolulu. 75 p.
- GILBERT, C. H.**  
1905. The aquatic resources of the Hawaiian Islands. Section II. The deep-sea fishes. Bull. U.S. Fish Comm. 23:577-713.
- GOADBY, P.**  
1970. Big fish and blue water. Angus and Robertson Ltd., Sidney. 334 p.
- GOSLINE, W. A., and V. E. BROCK.**  
1960. Handbook of Hawaiian fishes. Univ. Hawaii Press. Honolulu. 372 p.
- HART, J. L.**  
1973. Pacific fishes of Canada. Fish. Res. Board Can., Bull. 180. 740 p.
- HARVILLE, J. P.** (editor).  
1971. Environmental studies of Monterey Bay and the central California coastal zone. Moss Landing Mar. Lab., Annu. Rep., 190 p.
- HAW, F., and R. M. BUCKLEY.**  
1971. Saltwater fishing in Washington. Stan Jones Publ. Co., Seattle. 192 p.  
1972. Oregon saltwater fishing guide. Stan Jones Publ. Co., Seattle. 200 p.
- HAWAII VISITORS BUREAU.**  
1972. Fishing in Hawaii. Hawaii Visit. Bur., Honolulu. 4 p. (mimeogr.)
- HECKART, L. J., D. E. JONES, and R. T. BAADE.**  
1969. Saltwater sport fish harvest studies in southeast Alaska. In Annu. Rep. Prog. 1968 - 1969. Fed. Aid Fish Restor. 10:21-44. Alaska Dep. Fish Game. Proj. F-9-1. Sport Fish. Invest. Alaska.
- HELSTROM, H., and V. HELSTROM** (editors).  
1973. Henning's guide to fishing and vacationing in California. Helstrom Publ. Inc., Portland. 322 p.
- HOBSON, E. S., and E. H. CHAVE.**  
1972. Hawaiian reef animals. Univ. Press Hawaii, Honolulu. 135 p.
- HOLM, D.**  
1972. Fishing the Pacific. Winchester Press, N.Y., 241 p.
- HOSAKA, E. Y.**  
1944. Sport fishing in Hawaii. Bond's Publ., Honolulu. 198 p.
- KEHARA, I. I., H. T. KAMI, and R. K. SAKAMOTO.**  
1970. Exploratory fishing survey of the inshore fisheries resources of Guam. In Proc. 2nd CSK (Cooperative Study of the Kuroshio) Symp., Tokyo. p. 425-437.
- INTERNATIONAL GAME FISH ASSOCIATION.**  
1974. World record marine fishes. Int. Game Fish Assoc., Fort Lauderdale, Fla., 80 p.
- JORDAN, D. S., and B. W. EVERMANN.**  
1905. The aquatic resources of the Hawaiian Islands. Part 1.—The shore fishes. Bull. U.S. Fish. Comm. 23. 574 p.
- JORDAN, D. S., and A. SEALE.**  
1906. The fishes of Samoa. Bull. U.S. Bur. Fish. 25:175-488.
- JOSEPH, J.**  
1958. Guide to Pacific surf fishing. Sports Afield, distributed by California Department of Fish and Game. 7 p.
- JUDD, H. P.**  
1939. The Hawaiian language and Hawaiian English dictionary. Hawaiian Service, Inc., Honolulu. 117 p.
- KAMI, H. T.**  
1973. The Pristipomoides (Pisces: Lutjanidae) of Guam with notes on their biology. Micronesica 9:97-117.
- KAMI, H. T., I. I. KEHARA, and F. P. DE LEON.**  
1968. Check-list of Guam fishes. Micronesica 4:95-131.
- KENNEDY, T. F.**  
1968. A descriptive atlas of the Pacific Islands. F. A. Prager, N.Y., Wellington, New Zealand. 45 p.
- LA MONTE, F.**  
1945. North American game fishes. Doubleday & Co., N.Y., 206 p.  
1952. Marine game fishes of the world. Doubleday & Co., N.Y., 190 p.

LOGAN, S. M.

1970. Inventory and cataloging of Kenai Peninsula, Cook Inlet and Prince William Sound drainages and fish stocks. In Annu. Rep. Prog. 1969 - 1970. Fed. Aid Fish Restor. 11:65-73. Alaska Dep. Fish Game. Proj. F-9-2. Sport Fish. Invest. Alaska
1971. Inventory and cataloging of Kenai Peninsula, Cook Inlet, and Prince William Sound drainages and fish stocks. In Annu Rep Prog. 1970 - 1971. Fed Aid Fish Restor. 12:53-63. Alaska Dep. Fish Game. Proj. F-9-3. Sport Fish. Invest. Alaska: Study G-I.

McCLANE, A. J

1965. McClane's standard fishing encyclopedia. Holt, Rinehart and Winston, Inc., N.Y., 105 p.

McHENRY, E. T

1970. Silver salmon studies in the Resurrection Bay area. In Annu. Rep. Prog. 1969 - 1970. Fed. Aid Fish Restor. 11:75-89. Alaska Dep. Fish Game. Proj. F-9-2. Sport Fish. Invest. Alaska.
1971. Silver salmon studies in the Resurrection Bay area. In Annu Rep Prog. 1970 - 1971. Fed. Aid Fish Restor. 12:1-19. Alaska Dep. Fish Game. Proj. F-9-2. Sport Fish. Invest. Alaska. Study G-II

McHUGH, M. J., D. E. JONES,

and R. T. BAUDE.

1970. Saltwater sport fish harvest studies in southeast Alaska. In Annu. Rep. Prog. 1969 - 1970. Fed. Aid Fish Restor. 11:15-36. Alaska Dep. Fish Game. Proj. F-9-2. Sport Fish. Invest. Alaska.
1971. Inventory and cataloging of the sport fish and sport fish waters in southeast Alaska. In Annu. Rep. 1970 - 1971. Fed. Aid Fish Restor 12:1-27. Alaska Dep. Fish Game. Proj. F-9-3. Sport Fish. Invest. Alaska. Study G-I.
1971. Saltwater sport fish harvest studies in southeast Alaska. In Annu. Rep. 1970 - 1971. Fed. Aid Fish Restor. 12:1-18. Alaska Dep. Fish Game. Proj. F-9-3. Sport Fish. Invest. Alaska. Study G-IV.

McKECHNIE, R. J., and L. W. MILLER.

1971. The striped bass party boat fishery: 1960-1968. Calif. Fish Game 57:4-16.

MIGDALSKI, E. C.

1958. Angler's guide to the salt water game fishes. Atlantic and Pacific. Ronald Press Co., N.Y., 506 p.

MILLER, D. J.

1960. A field guide to some common ocean sport fishes of California: Part 1. Revised. Calif. Dep. Fish Game. Sacramento. 40 p.

MILLER, D. J., and D. GOTSHALL.

1963. Ocean fishing map of San Francisco, San Mateo and Santa Cruz Counties and the Elkhorn Slough area of Monterey County Calif. Dep. Fish Game. Sacramento. Map, text, tables.
1964. Ocean fishing map of Del Norte, Humboldt, and Mendocino Counties. Calif. Dep. Fish Game. Sacramento. Map, Text, tables.
1964. Ocean fishing map of Monterey and San Luis Obispo Counties. Calif. Dep. Fish Game. Sacramento. Map, text, tables.
1964. Ocean fishing map of Sonoma and Marin Counties. Calif. Dep. Fish Game. Sacramento. Map, text, tables.
1965. Ocean sportfish catch and effort from Oregon to Point Arguello, California. July 1, 1957-June 30, 1961. Calif. Dep. Fish Game. Fish. Bull. 130. 135 p.

MILLER, D. J., D. GOTSHALL,

and R. NITSOS.

1961. A field guide to some common ocean sport fishes of California: Part 2. Calif. Dep. Fish Game. Sacramento. 40 p.

MILLER, D. J., and M. W. ODEMAR.

1968. Ocean sportfish catch and effort from the Golden Gate to Yankee Point, Monterey County, California for the year 1966. Calif. Dep. Fish Game. MRO (Marine Resources Operations) Ref. No. 68-15. 70 p.

MILLER, D. J., and R. N. LEA.

1972. Guide to the coastal marine fishes of California. Calif. Dep. Fish Game. Fish. Bull. 157. 235 p.

MILLER, L. W.

1972. Migrations of sturgeon tagged in the Sacramento and San Joaquin estuary. Calif. Fish Game 58:102-106.

NELSON, D. C.

1971. Population studies of anadromous fish populations - southeast Kenai Peninsula. In Annu. Rep. Prog. 1970 - 1971. Fed. Aid Fish Restor. 12:35-53. Alaska Dep. Fish Game. Proj. F-9-3. Sport Fish. Invest. Alaska. Study G-II.

OTSU, T., and H. O. YOSHIDA.

1971. American Samoa fisheries. In Sidney Shapiro (editor). Our changing fisheries. p. 310-323. U.S. Dep. Commer., NOAA. Natl. Mar. Fish. Serv., Wash., D.C.

PACIFIC NORTHERN AIRLINES.

1963. Guide book to Alaska game fishing. Pacific Northern Airlines, Inc., Seattle. 24 p.

PHILLIPS, J. B.

1957. A review of the rockfishes of California (family Scorpaenidae). Calif. Dep. Fish Game. Fish Bull. 104. 158 p.

PYCHA, R. L.

1956. Progress report on white sturgeon studies. Calif. Fish Game 42:23-34.

RANDALL, J. E., and R. K. KANAYAMA.

1972. Hawaiian fish immigrants. Sea Front. 18:144-153.

REED, R. D., and R. H. ARMSTRONG.

1971. Dolly Varden sport fishery - Juneau Area. In Annu. Rep. Prog. 1970 - 1971. Fed. Aid Fish Restor. Vol. 12. 105 p. Alaska Dep. Fish Game. Proj. F-9-3. Sport Fish. Invest. Alaska. Study R-IV.

ROEDEL, P. M.

1953. Common ocean fishes of the California coast. Calif. Dep. Fish Game. Fish Bull. 91. 184 p.

SMITH, J. L. B.

1953. The sea fishes of southern Africa. Central News Agency, Ltd. S. Afr., 564 p.

SQUIRE, J. L., JR.

1963. Atlas of eastern Pacific marine game fishing. U.S. Dep. Inter., U.S. Fish Wildl. Serv., Bur. Sport Fish. Wildl., Circ 174. 8 p. + 21 charts.

STRASBURG, D. W.

1969. Billfishes of the Central Pacific Ocean. U.S. Fish Wildl. Serv., Circ. 311. 11 p.

SWERDLOFF, S. N.

1972. A determination of the feasibility of developing offshore commercial fishing in American Samoa. Job Completion Report. Commercial Fisheries Research and Development Act. Proj. H-8-D. 14 p.

TARP, F. H.

1952. A revision of the family Embiotocidae (the surfperches). Calif. Dep. Fish Game. Fish Bull. 88. 99 p.

WADMAN, R. D.

1965. Investigations of the upper southeast Alaska saltwater sport fish harvest. In Annu. Rep. Prog. 1964 - 1965. Fed. Aid Fish Restor. 6:57-72. Alaska Dep. Fish Game. Proj. F5-R-6. Sport Fish. Invest. Alaska.

WALFORD, L. A.

1931. Handbook of common commercial and game fishes of California. Calif. Div. Fish Game. Fish Bull. 28. 183 p.
1937. Marine game fishes of the Pacific coast from Alaska to the equator. Univ. Calif. Press, Berkeley. 205 p.

WHITESSEL, L. B.

1957. Catch distribution, composition and size structure salt water sport fishing S.E. Alaska. Alaska Game Commission. In Alaska Dep. Fish Game. Fed. Aid Fish Restor., Completion Rep., Proj. F-1-R-5. 15 p.