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— GUIDE TO —
CALIFORNIA'S
MARINE LIFE
MANAGEMENT ACT
SECOND EDITION

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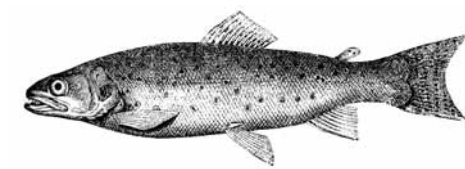
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— CHAPTER 1 —

CALIFORNIA'S OCEAN FISHERIES

THE SETTING

FOR 1,100 MILES, the spectacular mass of California's land meets the Pacific Ocean. In many areas of the state, mountains plunge into the ocean. On the coast, ancient shorelines stand as terraces above the surf. Elsewhere, streams and rivers break through the coastal mountains and flow into bays and lagoons rimmed with wetlands. Offshore, islands and rocks break the surface.

This is what we can easily see. But beneath the surface of the 5,767 square statute miles of ocean and bay waters, California's dramatic geological formations continue. Unlike the Atlantic or Gulf coasts, California's shallow continental shelf is quite narrow, generally no wider than five miles. At its broadest point off San Francisco, the shelf extends 30 miles offshore before plunging from 600 feet to the abyssal region at 6,000 feet. Here and there, peaks called seamounts rise from the depths to the photic zone where sunlight spurs plant growth and attracts life.

Whether near or far from shore, the ocean bottom may be rocky, sandy, or silty. It may be flat or formed of rocky reefs. In many areas along the coast, great canyons cut into the continental shelf, some quite close to shore. For example, the Monterey Submarine Canyon, which is larger than the Grand Canyon of the Colorado, begins within miles of the shoreline. There, as at other submarine canyons, marine life normally found far offshore is drawn close to land by the deep waters. Off southern California, the ocean bottom consists of basins, troughs, canyons, peaks, and cliffs alternating in a checkerboard pattern.

Ocean currents introduce other dimensions to California's coastal waters. For much of the year, the California Current brings cool northern waters southward along the shore as far as southern California. There,

where the coastline juts eastward, the California Current moves offshore. In the gap between the California Current and the mainland, the Southern California Countercurrent flows into the Santa Barbara Channel. Around Point Conception, these two currents meet, creating a rich transition zone. Closer to shore and deeper, the California Undercurrent also carries warmer water northward.

Seasonal changes in wind direction commonly create seasonal patterns for these currents. In March, for instance, northwesterly winds usually begin and combine with the rotation of the Earth to drive surface waters offshore, triggering the upwelling of cold, nutrient-rich water from the depths. Fueled by sunlight and the nutrients, single-celled algae bloom and create a rich soup that fuels a blossoming of marine life, attracting larger animals from seabirds and swordfish to humpback and blue whales.

By September, as the northwesterly winds die down, the cold water sinks again and warmer waters return to the coast. This oceanic period typically lasts into October, when the winds move to the southwesterly direction. These winds drive a surface current, called the Davidson Current, which flows north of Point Conception and inside the California Current, generally lasting through February.

Laid over this general pattern are both short-term and long-term shifts. Local winds, topography, tidal motions, and discharge from rivers create their own currents in nearshore waters. Less frequently, a massive change in atmospheric pressure off Australia floods the eastern Pacific with warm water, which suppresses the normal pattern of upwelling. These short-term climatic changes, called El Niño, reduce the productivity of coastal waters, causing some fisheries and seabirds and marine mammal populations to decline. El Niños can also increase the abundance of other species. For instance, warm waters that flow north in an El Niño carry the larva of sheephead and lobster from the heart of their geographical range in Mexico into the waters off California.

Other oceanographic changes last for a decade or more. In these regime shifts, water temperatures rise or fall significantly, causing dramatic changes in the distribution and abundance of marine life. The collapse of the California sardine fishery occurred when heavy fishing continued on sardine populations that were greatly reduced by a cooling of offshore waters in the late 1940s and early 1950s. In response to the decline in sardines, California law severely curtailed the catch. In 1977, waters off California

began warming and remained relatively warm. The warmer water temperatures were favorable for sardines, whose abundance greatly increased. But the warmer waters also reduced the productivity of other fish, including many rockfish, lingcod, sablefish, and most flatfish, which favor cold water for successful reproduction.

Since the MLMA was passed, the impacts of climate change, and more recently of ocean acidification, have made themselves felt ever more dramatically. In 2016, the West Coast Ocean Acidification and Hypoxia Panel, convened by the California Ocean Science Trust (OST) at the request of the Ocean Protection Council (OPC), released its report outlining likely impacts of ocean acidification on west coast ocean ecosystems. Among other things, the panel found that increasing acidification will jeopardize shell-forming species, ranging from oysters to plankton upon which ocean food webs are based.

In 2014–2016, an unprecedented “blob” of warm water expanded and persisted along the west coast of North America, disrupting coastal ecosystems. The Dungeness crab fishery, one of California’s most valuable, was closed for much of the 2015–2016 season due to an unprecedented harmful algal bloom. Populations of market squid, which previously were rarely found north of San Francisco, shifted as far north as Oregon and beyond. Along the coast north of San Francisco, kelp beds vanished in the warm water, leaving abalone and urchins without forage and important finfish species without shelter.

Concerns about the economic dislocation caused by these events and about possible recurrence in the future spurred engagement by the legislature’s Joint Committee on Fisheries and Aquaculture. The OPC responded by requesting that the California OST work with counterparts in Oregon, Washington, and British Columbia to convene a task force on climate change and ocean acidification. The OPC also directed its Science Advisory Team to develop guidance for managing fisheries in the face of climate change and ocean acidification.

MARINE LIFE OF CALIFORNIA

The waters off California are host to 544 species of fish from 144 families. Thousands of species of marine invertebrates inhabit the sea floor from tidepools along the shoreline to muddy plains 8,000 feet deep. Dozens of species of coastal and offshore birds spend some part of the year in

**TABLE 2: TOP 20 COMMERCIAL FISHERIES
BY VOLUME AND VALUE IN 2000**

SPECIES	POUNDS	VALUE	PRICE/LB
Market squid	261,940,567	\$27,105,225	\$0.10
Red sea urchin	15,166,155	\$14,917,308	\$0.98
Dungeness crab	6,492,910	\$13,732,227	\$2.11
Swordfish	4,048,187	\$11,705,551	\$2.89
Chinook salmon	5,134,588	\$10,274,675	\$2.00
Pacific sardine	118,192,953	\$5,460,211	\$0.05
Sablefish	4,136,065	\$5,257,110	\$1.27
Spiny lobster	705,704	\$4,679,999	\$6.63
Albacore tuna	4,150,686	\$3,826,186	\$0.92
Spot prawn	447,124	\$3,814,915	\$8.53
Nearshore finfish*	908,535	\$3,533,739	\$3.89
Pacific mackerel	48,316,798	\$2,923,940	\$0.06
Dover sole	7,307,213	\$2,482,097	\$0.34
California halibut	847,521	\$2,443,480	\$2.88
Pacific herring roe	7,604,982	\$2,283,839	\$0.30
Longspine thornyhead	1,964,031	\$1,943,291	\$0.99
Ridgeback prawn	1,565,009	\$1,780,712	\$1.14
Petrale sole	1,411,037	\$1,443,559	\$1.02
Rock crab	1,088,160	\$1,390,479	\$1.28
Northern anchovy	25,911,754	\$1,352,218	\$0.05
<i>Total top 20 species</i>	517,339,979	\$122,350,761	
<i>Total all CA species</i>	553,462,949	\$136,320,339	

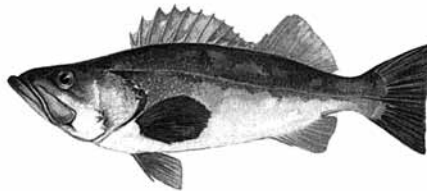


TABLE 3: VOLUME AND VALUE OF COMMERCIAL LANDINGS BY PORT AREA IN 2014

PORT AREA	POUNDS	VALUE
San Francisco	40,760,733	\$45,925,122
Santa Barbara	82,197,796	\$44,500,906
Monterey	130,747,079	\$40,317,638
Eureka	25,301,099	\$31,625,251
Los Angeles	55,862,018	\$24,312,130
Fort Bragg	8,857,427	\$14,356,515
Bodega Bay	4,311,471	\$13,416,636
Morro Bay	7,185,470	\$10,458,256
San Diego	2,343,754	\$10,307,038
<i>Total</i>	357,566,848	\$235,219,493

The general ranking of the ports has not changed much since 2000, with the exception of the Los Angeles port area, which led all others in 2000 by a wide margin but now ranks fifth—a shift reflecting a dramatic decline in landings of market squid and Pacific sardine at Los Angeles area ports. The lumping of individual ports into port areas obscures significant differences in scale. For example, in the Eureka port area, commercial landings in Eureka generated \$14.5 million in 2014 compared to \$357,613 in Shelter Cove. Port areas and ports differ in the species that dominate landings as well. In the Eureka port area, Dungeness crab landings accounted for more than half of the revenues from commercial fisheries. By contrast, in the Santa Barbara port area, market squid dominated, accounting for nearly half of the revenues. Landings of species such as market squid and Dungeness crab at individual ports can vary dramatically from year to year. In 2014, landings of Dungeness crab at Eureka generated \$6.1 million at the dock, compared to \$1.8 million in 2000. See Appendix F for more detail on landings at individual ports in 2014.

CALIFORNIA'S RECREATIONAL FISHERIES

Recreational fishing in California began soon after the Gold Rush. During the 1800s, sail-powered boats carried anglers to fish rockfish, Pacific halibut, salmon, and tuna. Commercial passenger fishing vessels (CPFVs)

enabled anglers to access deep-sea fishing in the 1910s, and live-bait boats soon appeared in Southern California. From the 1800s through the early 1900s, recreational fishermen could catch surf perch, mackerel, white seabass, and even yellowtail from piers. California's population expansion in the mid-20th century led to a corresponding boom in marine recreational fishing, particularly in Southern California. During this period, angling evolved into a year-round activity, and technological innovations made recreational fishing more sophisticated and CPFVs more comfortable.

In 2011, the American Sportfishing Association ranked California fifth in the nation in total money spent by freshwater and saltwater anglers. A U.S. Fish and Wildlife Service survey from the same year reported 1,674,000 anglers in California, of which 775,000 were saltwater anglers. In total, saltwater anglers had almost 7.2 million fishing days in 2011. These statistics represent a decline over the preceding decade; in 2001, California had 2.4 million anglers including 932,000 saltwater fishers. The overall economic impact of recreational fishing, including both freshwater and saltwater angling, is greater than that of commercial fishing because of anglers' expenditures for goods and services such as transportation, fishing equipment, clothing, and boats. Saltwater recreational fisheries alone generated 12,134 jobs and over \$1.7 billion in revenue in California in 2012, according to the *Fisheries Economics of the United States* report published by the National Oceanic and Atmospheric Administration (NOAA).

Recreational fishermen most commonly use rod and reel with artificial lures, live bait, or dead bait. Fishermen may also use hoop nets to catch crabs, lobsters, or shrimp. Divers catch a wide variety of finfish with spears, and may catch crabs, lobsters, abalone, urchins, and scallops by hand. Shore pickers gather mussels, clams, or crabs at low tide, or California grunion by moonlight. Rockfish, salmon, barracuda, bass, bonito, and several tuna species are all important recreational species in California. Data on California's recreational fisheries catch is recorded by the California Recreational Fisheries Survey (CRFS) and available online via the Recreational Fisheries Information Network (RecFIN), a division of the Pacific States Marine Fisheries Commission (PSMFC).

In 2012–2014, 31% of all fish landed or released recreationally were caught on charter or party boats, and another 39% by private or rental boats. (See Table 4.) The remainder was caught by anglers fishing on the

— APPENDIX A —

THE MARINE LIFE
MANAGEMENT ACT

*Unless indicated otherwise, all sections were added to the
Fish and Game Code in 1998, and became effective on January 1, 1999.*

90

The definitions in this chapter govern the construction of Chapter 7 (commencing with Section 1700) of Division 2 and Division 6 (commencing with Section 5500) and all regulations adopted pursuant to those provisions.

90.1

“Adaptive management,” in regard to a marine fishery, means a scientific policy that seeks to improve management of biological resources, particularly in areas of scientific uncertainty, by viewing program actions as tools for learning. Actions shall be designed so that even if they fail, they will provide useful information for future actions. Monitoring and evaluation shall be emphasized so that the interaction of different elements within the system can be better understood.

90.5

“Bycatch” means fish or other marine life that are taken in a fishery but which are not the target of the fishery. “Bycatch” includes discards.

90.7

“Depressed,” with regard to a marine fishery, means the condition of a fishery for which the best available scientific information, and other relevant information that the commission or department possesses or receives, indicates a declining population trend has occurred over a period of time appropriate to that fishery. With regard to fisheries for which management is based on maximum sustainable yield, or in which a natural mortality rate is available, “depressed” means the condition of a fishery that exhibits declining fish population abundance levels below those consistent with maximum sustainable yield.

91

“Discards” means fish that are taken in a fishery but are not retained because they are of an undesirable species, size, sex, or quality, or because they are required by law not to be retained.

93

“Essential fishery information,” with regard to a marine fishery, means information about fish life history and habitat requirements; the status and trends of fish populations, fishing effort, and catch levels; fishery effects on fish age structure and on other marine living resources and users, and any other information related to the biology of a fish species or to taking in the fishery that is necessary to permit fisheries to be managed according to the requirements of this code.

94

“Fishery” means both of the following:

- (a) One or more populations of marine fish or marine plants that may be treated as a unit for purposes of conservation and management and that are identified on the basis of geographical, scientific, technical, recreational, and economic characteristics.
- (b) Fishing for, harvesting, or catching the populations described in (a).

(Amended January 1, 2003.)

96

“Marine living resources” includes all wild mammals, birds, reptiles, fish, and plants that normally occur in or are associated with salt water, and the marine habitats upon which these animals and plants depend for their continued viability.

96.5

“Maximum sustainable yield” in a marine fishery means the highest average yield over time that does not result in a continuing reduction in stock abundance, taking into account fluctuations in abundance and environmental variability.

97

“Optimum yield,” with regard to a marine fishery, means the amount of fish taken in a fishery that does all of the following:

- (a) Provides the greatest overall benefit to the people of California, particularly with respect to food production and recreational opportunities, and takes into account the protection of marine ecosystems.
- (b) Is the maximum sustainable yield of the fishery, as reduced by relevant economic, social, or ecological factors.
- (c) In the case of an overfished fishery, provides for rebuilding to a level consistent with producing maximum sustainable yield in the fishery.

97.5

“Overfished,” with regard to a marine fishery, means both of the following:

- (a) A depressed fishery.
- (b) A reduction of take in the fishery is the principal means for rebuilding the population.

98

“Overfishing” means a rate or level of taking that the best available scientific information, and other relevant information that the commission or department possesses or receives, indicates is not sustainable or that jeopardizes the capacity of a marine fishery to produce the maximum sustainable yield on a continuing basis.

98.2

“Participants” in regard to a fishery means the sportfishing, commercial fishing, and fish receiving and processing sectors of the fishery.

98.5

“Population” or “stock” means a species, subspecies, geographical grouping, or other category of fish capable of management as a unit.

99

“Restricted access,” with regard to a marine fishery, means a fishery in which the number of persons who may participate, or the number of

- (c) The commission shall require an annual accounting from the department on the deposits into, and expenditures from, the Fish and Game Preservation Fund, as related to the revenues generated pursuant to Section 8587. Notwithstanding Section 7550.5 of the Government Code, a copy of the accounting shall be provided to the Legislature for review by the Joint Committee on Fisheries and Aquaculture, and if that committee is not in existence at the time, by the appropriate policy committee in each house of the Legislature.
- (d) Unencumbered fees collected pursuant to Section 8587 during any previous calendar year shall remain in the fund and expended for the purposes of subdivision (a). All interest and other earnings on the fees received pursuant to Section 8587 shall be deposited in the fund and shall be used for the purposes of subdivision (a).



— A P P E N D I X B —

MANAGEMENT ROLES IN SELECT WEST COAST FISHERIES

FISHERY	SECTOR	FISHERY MGT. PLAN	INTERNATIONAL MGT. ORG.	NATL OCEANIC & ATMOS. ADMIN.	PACIFIC FISHERY MGT. COUNCIL	CALIFORNIA LEGISLATURE	FISH AND GAME COMMISSION	DEPARTMENT OF FISH AND WILDLIFE
Abalone	Rec	Abalone Recovery and Management Plan, State FMP in development				Penalties for violations	Area and season closures, bag and annual limit, size limit, gear restrictions, conforming actions	Issuing and tracking report cards, status reports, enforcement, monitoring
Anchovy, Northern	Comml	Federal Coastal Pelagic Species FMP		Research and stock assessments, enforcement, FMP approval	Total allowable catch (TAC), FMP preparation, permits	Area restrictions, gear limitations	Permits for reduction fishery	Data collection, enforcement
Bass, Kelp and Sand	Rec	None					Size limit, bag limit, gear restrictions	Data collection, status report, enforcement, monitoring
Bonito	Comml	None				Minimum size and weight limit		Data collection, status report, enforcement, monitoring
Bonito	Rec	None					Minimum size limit, bag limit	Data collection, status report, enforcement, monitoring
Crab, Dungeness	Comml	None		Research		Season and area restrictions, Task Force authorization, permits, trap and size limits		Data collection, trap recovery program, monitoring, enforcement, trap tags and fee collection, season start/end dates
Crab, Dungeness	Rec	None		Research			Season and area restrictions; bag, size, and gear limits	Data collection, monitoring, season start/end dates, licensing fee collection, enforcement
Crab, Rock (all species)	Comml	None				Area restrictions, gear requirements, incidental take	Permits, size limits, gear restrictions, health closures	Data collection, status report, enforcement, monitoring, permit processing
Crab, Rock (all species)	Rec	None					Size, bag limits, health closures, FMP approval	Data collection, FMP preparation, status report development, enforcement, monitoring
Dorado/mahi-mahi	Comml	Federal Highly Migratory Species FMP	Western and Central Pacific Fisheries Commission monitors	FMP approval, stock assessments, WCPFC participation	FMP preparation			Enforcement
Dorado/mahi-mahi	Rec	Federal Highly Migratory Species FMP		FMP approval, stock assessments, WCPFC participation	FMP preparation		Conforming actions	Enforcement

B. MANAGEMENT ROLES IN SELECT WEST COAST FISHERIES (CONT.)

FISHERY	SECTOR	FISHERY MGT. PLAN	INTERNATIONAL MGT. ORG.	NAT'L OCEANIC & ATMOS. ADMIN.	PACIFIC FISHERY MGT. COUNCIL	CALIFORNIA LEGISLATURE	FISH AND GAME COMMISSION	DEPARTMENT OF FISH AND WILDLIFE
Hake (Pacific Whiting)	Comm'l	Federal Groundfish FMP	US-Canada Pacific Whiting Treaty	Stock assessment and TAC recommendation with Canada's Department of Fisheries and Oceans; FMP approval	FMP preparation, management of individual transferable quota program	Area and season restrictions, gear limits, permits	Permits, area and gear restrictions for California Halibut Trawl Grounds	Enforcement
Halibut, California	Comm'l	None						Stock assessment, monitoring, status reports, enforcement
Halibut, California	Rec	None					Gear restrictions, bag and size limits	Stock assessment, monitoring, status reports, enforcement
Halibut, Pacific	Rec	None	International Pacific Halibut Commission; management, establish TAC for regions, stock assessment	Implementation of international management measures, division of TAC between states	Recommendations regarding TAC allocations, area closures, division of TAC between Pacific states		Gear restrictions, bag limits, season closures, conforming actions	Data collection, enforcement
Halibut, Pacific	Comm'l	None	IPHC - Coordinate management, establish TAC for region, stock assessment, set season dates, trip limits,	Implement international management measures, divide TAC between states	Recommendations regarding TAC allocations, area closures, division of TAC among Pacific states; in-season adjustments to bycatch limits			Enforcement
Herring, Pacific	Comm'l	in development					TAC approval	Research and monitoring, TAC proposals, permits, annual rule-making, enforcement
Lobster, Spiny	Comm'l	Spiny Lobster FMP					FMP approval, permits	Data collection, FMP preparation, status reports, trap tags and fees, enforcement, monitoring,
Lobster, Spiny	Rec	Spiny Lobster FMP					FMP approval, report cards, season closures, bag limits, size limit, gear specifications	Data collection, FMP preparation, status reports, enforcement, monitoring
Prawn, Spot	Comm'l	None					Permit allocation, gear restrictions, area restrictions	Data collection, permit/license processing and fee collection, monitoring, enforcement

FISHERY	SECTOR	FISHERY MGT. PLAN	INTERNATIONAL MGT. ORG.	NATL OCEANIC & ATMOS. ADMIN.	PACIFIC FISHERY MGT. COUNCIL	CALIFORNIA LEGISLATURE	FISH AND GAME COMMISSION	DEPARTMENT OF FISH AND WILDLIFE
Federal Groundfish*	Comml	Federal Groundfish FMP		Research and stock assessments, monitoring, FMP approval	Federal FMP preparation, area closures, TACs, manage ITQ, gear restrictions, species specific bag/trip limits, limited entry permits		Species-specific season and area restriction	Biological sampling, population assessments, monitoring, vessel permits/licenses, enforcement
Federal Groundfish*	Rec	Federal Groundfish FMP		Research and stock assessments, FMP approval	FMP preparation, season and area closures, bag and trip limits		Species-specific season and area restrictions and bag limits; prohibited species, conforming actions	Enforcement, monitoring
Nearshore Rockfish**	Comml	Federal Groundfish FMP		Federal FMP approval, stock assessments	Federal FMP preparation, area closures, TACs, manage ITQ, gear restrictions, species specific bag/trip limits, limited entry permits	Area closures, gear restrictions	Implement PFMC regulations; state FMP approval	FMP development, data collection, enforcement, monitoring, status report development, issue vessel permits/licenses
Nearshore Rockfish**	Rec	Federal Groundfish FMP		Federal FMP approval, stock assessments	Federal FMP preparation, season and area closures, bag and trip limits	Area closures	Implement PFMC regulations; state FMP approval	State FMP development, data collection, enforcement, monitoring, status report development
Nearshore Finfish Species***	Comml	Nearshore Fisheries FMP				Area closures, gear restrictions, limited entry permitting	FMP approval, area closures, TACs	FMP development, determine TACs, data collection, enforcement, monitoring, status reports
Nearshore Finfish Species***	Rec	Nearshore Fisheries FMP				Area closures	FMP approval, gear restrictions, seasons, area closures, approval of TACs	State FMP development, TACs, data collection, enforcement, monitoring, status reports
Salmon	Comml	Federal Salmon FMP	Pacific Salmon Commission; management recommendations to US and Canada	Research and stock assessments, in-season management, FMP approval	FMP preparation, TACs, stock assessments, species-specific gear restrictions, season closures	Permits, species-specific area, size restrictions, sea-son closures		Data collection, enforcement, log book and fee collection
Salmon	Rec	Federal Salmon FMP	Pacific Salmon Commission; management recommendations to US and Canada	Research and stock assessments, in-season management, FMP approval	FMP preparation, species-specific area, bag, size, gear restrictions, season closures		Gear restrictions, size limits, species specific bag limits, season restrictions, conforming actions	Data collection, enforcement
Sardine, Pacific	Comml	Federal Coastal Pelagic Species FMP		Research and stock assessments, FMP approval	FMP preparation, TAC, limited entry permits		Permits for collection as bait	Data collection, enforcement

FISHERY	SECTOR	FISHERY MGT. PLAN	INTERNATIONAL MGT. ORG.	NAT'L OCEANIC & ATMOS. ADMIN.	PACIFIC FISHERY MGT. COUNCIL	CALIFORNIA LEGISLATURE	FISH AND GAME COMMISSION	DEPARTMENT OF FISH AND WILDLIFE
Sea Cucumber	Comml	None				Limited entry permits, bag limits		Data collection, enforcement, monitoring, status reports
Seabass, White	Comml	White Seabass FMP				Gear restrictions and specifications, season closures, size limits	FMP approval	FMP preparation, research, stock assessment, facilitate White Seabass Advisory Committee, hatchery oversight, enforcement
Seabass, White	Rec	White Seabass FMP					FMP approval, bag and size limits	FMP preparation, facilitate White Seabass Advisory Committee, hatchery oversight, enforcement
Shrimp, Pink	Comml	None				Gear requirements	Seasons, area closures, gear requirements, FMP approval	Data collection, enforcement, FMP preparation, monitoring, status report development
Squid, Market	Comml	Market Squid FMP and Federal Coastal and Pelagic Species FMP				Restrictions on light use	Catch limit, FMP approval, permits, season closures, gear restrictions	Stock assessment, FMP preparation, data collection, management recommendations, in-season management, permit fee collection and processing, enforcement
Swordfish	Comml	Federal Highly Migratory Species FMP	Western and Central Pacific Fisheries Commission monitors	Research on gear types, manage ESA/MMPA interactions, FMP approval	FMP preparation, new management measures	Gear restrictions, permits	Gear restrictions, permits	Permits, data collection, enforcement
Tuna, all species	Comml	Federal Highly Migratory Species FMP	Inter-American Tropical Tuna Commission; TAC, stock assessment	Implement international management measures, permits and logbooks	Recommends TAC allocations, FMP preparation		Minimum size limit	Data collection, enforcement
Tuna, all species	Rec	Federal Highly Migratory Species FMP	Inter-American Tropical Tuna Commission; TAC, stock assessment	Implement international management measures, issue and process logbooks, FMP approval	Some species-specific bag limits, FMP preparation		Species-specific bag limits, conforming actions	Enforcement
Urchin, Red	Comml	None					Permits, season and area closures, size limits, FMP approval	FMP preparation, status report, permit fee collection and processing, enforcement
Urchin, Red	Rec	None					General invertebrate bag limit, FMP approval	FMP preparation, report card, data collection, enforcement