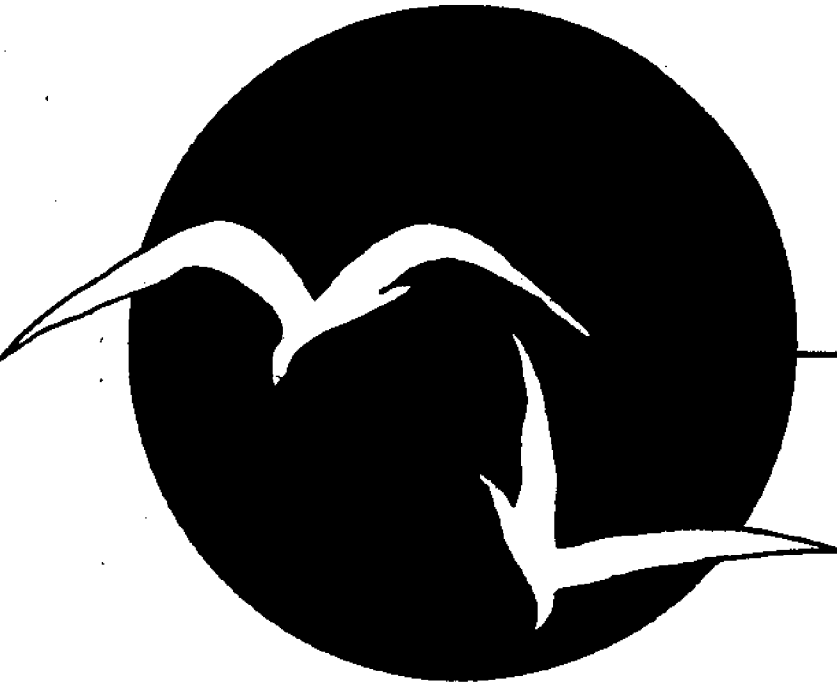


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A CHECKLIST OF THE FISHES OF THE MONTEREY BAY AREA INCLUDING ELKHORN
SLOUGH, THE SAN LORENZO, PAJARO AND SALINAS RIVERS

Annual Report, Part 2, July 1972

by

Gary E. Kukowski

Sea Grant Research Assistant

A NATIONAL SEA GRANT PROJECT

Supported by the
OFFICE OF SEA GRANT PROGRAMS
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
DEPARTMENT OF COMMERCE
Grant No. 2-35137

Robert E. Arnal, Sea Grant Project Coordinator

Moss Landing Marine Laboratories
of the
California State University
at

Fresno, Hayward, Sacramento, San Francisco, and San Jose

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CASUC-MLML-TP-72-02

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INTRODUCTION

An ichthyologist should be familiar with the literature on the regional distribution of fishes before he attempts identification of local collections. Occasionally specimens are captured that appear to be outside their geographic ranges; frequently research into the regional literature reveals that such individuals have been previously noted from the area and are thus within their reported ranges.

The present checklist hopefully will assist other researchers in the identification of the fishes of Monterey Bay. The reference list also provides a brief historical review of the ichthyological research on fishes in the area.

AREA OF COVERAGE

The Monterey Bay area was defined as the region south of Pigeon Point ($37^{\circ} 10' N$), north of Point Sur ($36^{\circ} 20' N$), and between $121^{\circ} 50' W$ and $122^{\circ} 30' W$. These limits were not rigidly maintained for deep water fishes that were collected near the boundaries.

The Elkhorn Slough, San Lorenzo, Pajaro and Salinas River areas include the complete drainage into the respective slough or rivers. Elkhorn Slough is further divided into three areas whenever it is possible to determine the site of fish collection. These three areas are the following: the north arm of Elkhorn Slough from a line drawn between Skipper's Cafe and the north jetty, to the north end of Bennett Slough; the south arm of Elkhorn Slough from a line drawn between the south side of the Highway 1 bridge and the south jetty to Potrero Road; the central part of the slough

is the region between the jetties and the remaining part of Elkhorn Slough east of the Highway 1 bridge.

METHODS OF LITERATURE SEARCH

Several different sources were used to compile the checklist. The Monterey Bay Bibliography (Garono, 1971) was the first source used to locate reports on the occurrence of the fishes in the area. The bibliographies of major works on the ichthyological fauna of the Pacific Coast were then consulted. All copies of California Fish and Game and the Stanford Ichthyological Bulletin were searched for pertinent references. Miller, et al. (in press) generously supplied data on fishes whose range encompassed the area, but that have not yet been recorded from the area. The review for this checklist did not include all the literature on fishes from the area, but hopefully included most of the pertinent literature. Other major sources of information were the fishes collections at San Jose State College and Moss Landing Marine Laboratories.

The information for each species was placed on Unisort Analysis Cards. The cards were punched for retrieval by species, family, location of occurrence, or the author reporting their occurrence. These cards are on file at the library at Moss Landing Marine Laboratories, and can be used to provide the same information as the checklist; the cards are more convenient than the checklist itself to determine the complete author listing.

EXPLANATION OF CHECKLIST

The scientific and common names of fishes reported in depths of less than 200 meters are those approved by the American Fisheries Society (1970).

Fitch (1968) was used as a secondary guide for the deep water fishes. Clemens and Wilby (1961) was used as a tertiary source for common names not listed by Fitch.

The phylogenetic arrangement of families is according to Greenwood, et al. (1966).

Table 1 presents all the species reported in the Monterey Bay area including the river and slough areas and indicates the collection site.

Tables 2 and 3 present additional data for Monterey Bay proper. Table 2 gives a list of fishes that have not yet been reported in Monterey Bay but whose ranges include the area. The numbers beside the common names refer to the author listing the range. Table 3 lists all the fishes reported to occur in Monterey Bay and the appropriate literature sources. The abundance of a species in the area is indicated roughly by the number of authors reporting the species.

A complete list of the fishes of Elkhorn Slough is presented together with data on the specific region of collection (Table 4). A list of the fishes from each of the three areas of the slough follows with the corresponding references (Tables 5, 6, 7). Table 8 indicates those fishes reported from unknown sites in Elkhorn Slough and the accompanying references.

The lists of the fishes of the San Lorenzo, Pajaro and Salinas Rivers follow (Tables 9, 10, 11) and are arranged in the format of the previous tables.

Immediately following the main reference list is a secondary listing of other references that may be helpful for identification or clarification.

Since this checklist is not necessarily a complete listing of all the fishes in the Monterey Bay area, and since ranges of fishes are constantly

changing, blank pages have been included at the rear of the book for additions to the checklist.

ACKNOWLEDGEMENTS

Many people have assisted in the assembly of the checklist. Probably most important were the librarians, Doris Baron, Moss Landing Marine Laboratories and Alan Baldrige, Hopkins Marine Station. Robert Lea, Daniel Miller, and Richard Parrish of California Fish and Game in Monterey, Robert Hassur at San Jose State College, and R. I. Smith from the University of California, Berkeley, are to be thanked for the time and effort they donated to the author. Mary Silver, Moss Landing Marine Laboratories, edited the manuscript, Camie Radakovich graciously typed the manuscript, and Jeri Boechler helped the author proofread the manuscript. Special thanks go to John Harville, Pacific Marine Fisheries Commission, Portland, who suggested the report, and to my roommate Dave Garrison and all the other students, faculty, and staff at the Moss Landing Marine Laboratories who put up with me during the compilation of this checklist.

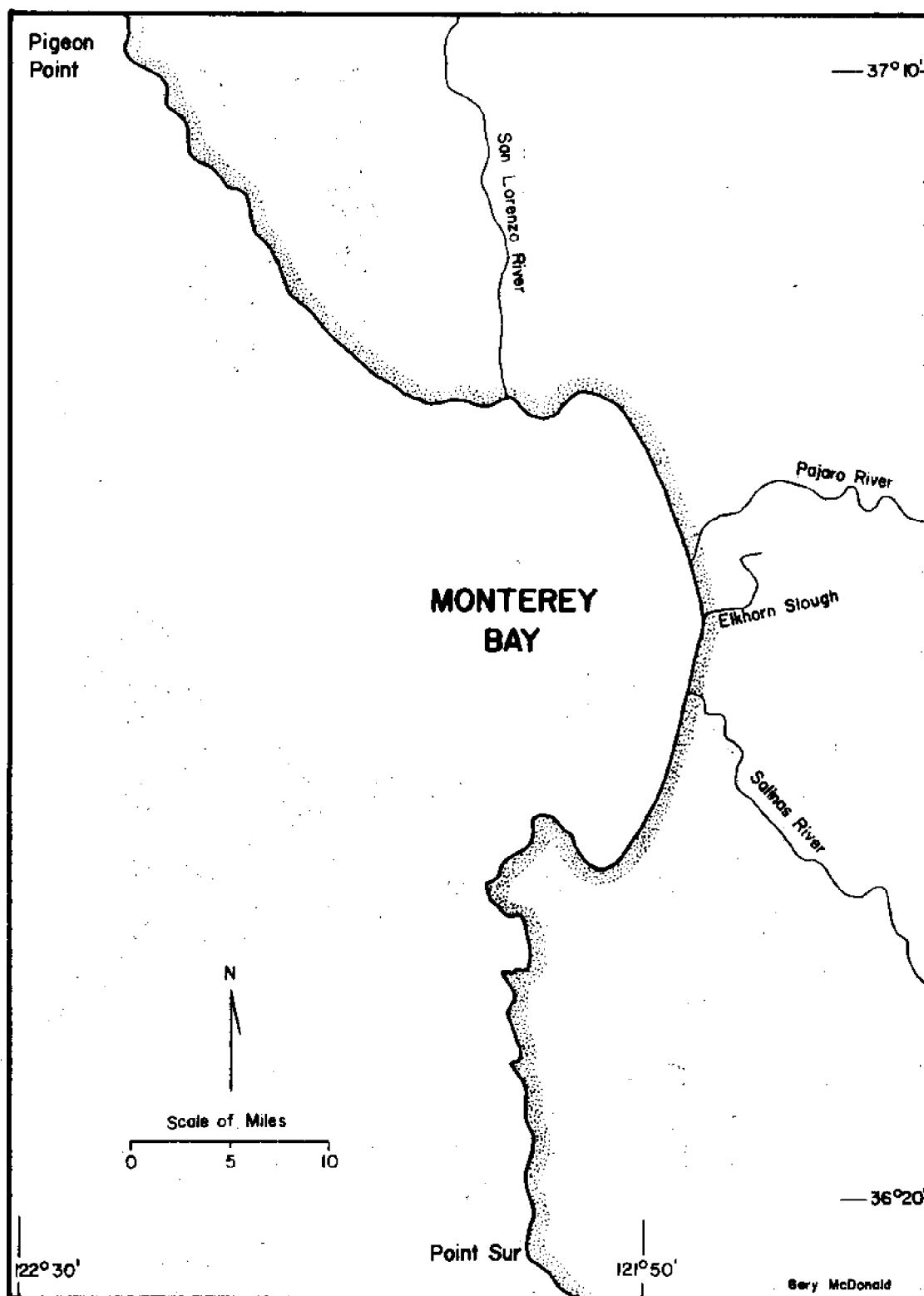


Figure 1. Map of Monterey Bay Area

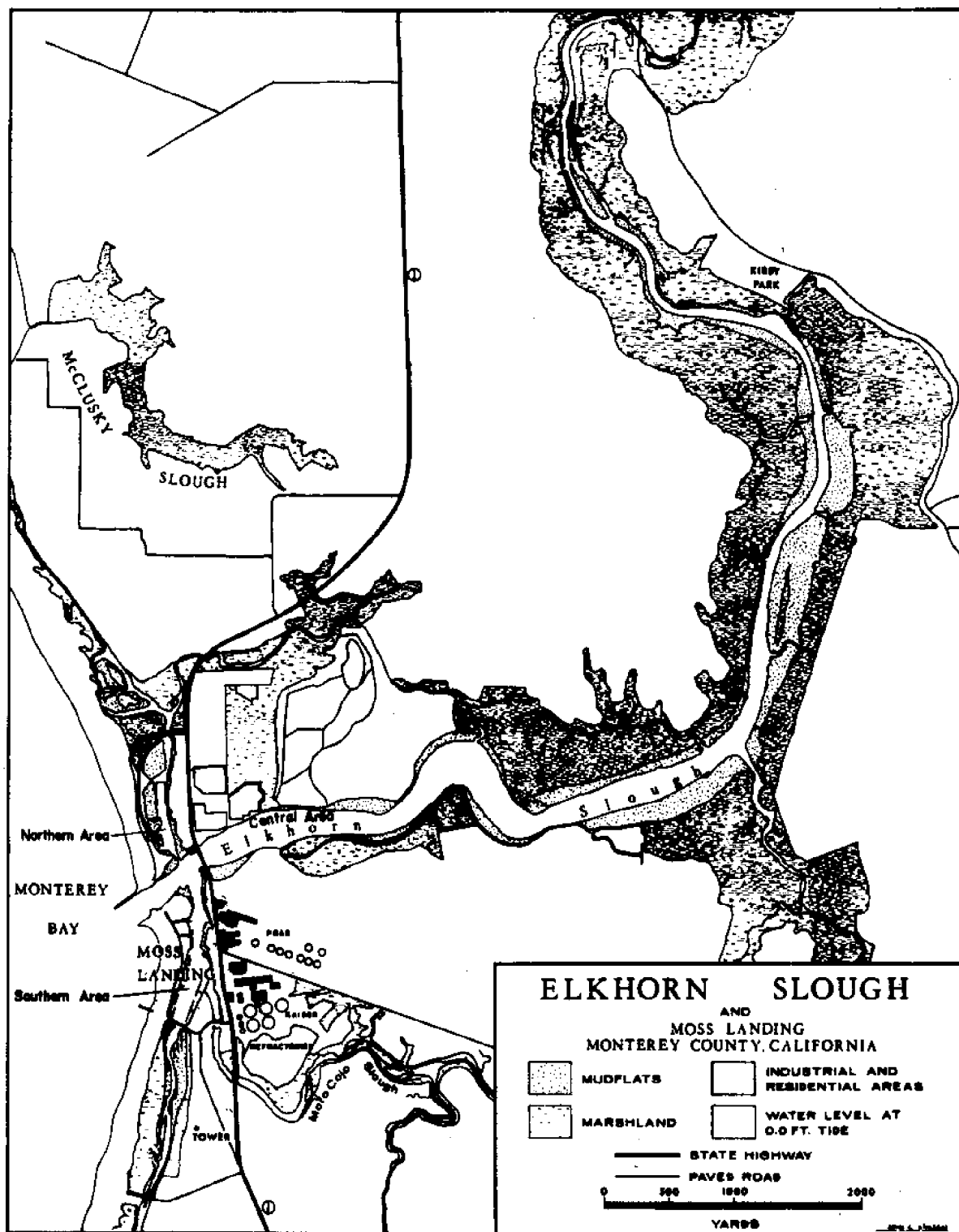


Figure 2. Map of Elkhorn Slough

TABLE 1

FISHES REPORTED FROM THE MONTEREY BAY AREA INCLUDING
THE RIVER AND SLOUGH AREAS

FAMILY		SCIENTIFIC NAME	COMMON NAME	AREA OF OCCURRENCE
Myxinidae		<u>Eptatretus deani</u>	Black hagfish	MB ¹
		<u>Eptatretus stouti</u>	Pacific hagfish	MB-ES ²
Petromyzontidae		<u>Entosphenus tridentatus</u>	Pacific lamprey	MB-SLR ³ -PR ⁴ -SR ⁵
Hexanchidae		<u>Hexanchus griseus</u>	Sixgill shark	MB
		<u>Notorynchus maculatus</u>	Sevengill shark	MB
Heterodontidae		<u>Heterodontus francisci</u>	Horn shark	MB
Alopiidae		<u>Alopias vulpinus</u>	Thresher shark	MB
Lamnidae		<u>Carcharodon carcharias</u>	White shark	MB
		<u>Cetorhinus maximus</u>	Basking shark	MB
		<u>Isurus oxyrinchus</u>	Shortfin mako	MB
		<u>Lamna ditropis</u>	Salmon shark	MB
Scyliorhinidae		<u>Apristurus brunneus</u>	Brown cat shark	MB
		<u>Cephaloscyllium ventriosum</u>	Swell shark	MB
		<u>Scorpaenopsis variata</u>	Clupeoid cat shark	MB
Carcharhinidae		<u>Galeorhinus zyopterus</u>	Soupfin shark	MB
		<u>Mustelus californicus</u>	Gray smoothhound	MB-ES
		<u>Mustelus henlei</u>	Brown smoothhound	MB-ES
		<u>Prionace glauca</u>	Blue shark	MB
		<u>Triakis semifasciata</u>	Leopard shark	MB-ES
Squalidae		<u>Echinorhinus cookei</u>	Prickly shark	MB
		<u>Squalus acanthias</u>	Spiny dogfish	MB
Squatinae		<u>Squatina californica</u>	Pacific angel shark	hark MB

TABLE 1 (Continued)

Rhinobatidae		
<u>Platyrrhinoidis triseriata</u>	Thornback	MB-ES
<u>Rhinobatos productus</u>	Shovelnose guitarfish	MB-ES
Torpedinidae		
<u>Torpedo californica</u>	Pacific electric ray	MB
Rajidae		
<u>Raja binoculata</u>	Big skate	MB
<u>Raja inornata</u>	California skate	MB
<u>Raja kincaidii</u>	Black skate	MB
<u>Raja rhina</u>	Longnose skate	MB
<u>Raja stellulata</u>	Starry skate	MB
Dasyatidae		
<u>Urolophus halleri</u>	Round stingray	MB-ES
Myliobatidae		
<u>Myliobatis californica</u>	Bat ray	MB-ES
Chimaeridae		
<u>Hydrolagus colliei</u>	Ratfish	MB
Acipenseridae		
<u>Acipenser medirostris</u>	Green sturgeon	MB
Albulidae		
<u>Albula vulpes</u>	Bonefish	MB
Ophichthidae		
<u>Ophichthus triserialis</u>	Pacific snake eel	ES
Clupeidae		
<u>Alosa sapidissima</u>	American shad	MB-ES
<u>Clupea harengus pallasii</u>	Pacific herring	MB-ES-SLR-PR-SR
<u>Dorosoma petenense</u>	Threadfin shad	ES-SR
<u>Sardinops sagax</u>	Pacific sardine	MB-ES
Engraulidae		
<u>Engraulis mordax</u>	Northern anchovy	MB-ES
Salmonidae		
<u>Oncorhynchus gorbusha</u>	Pink salmon	MB-SLR
<u>Oncorhynchus keta</u>	Chum salmon	MB-SLR
<u>Oncorhynchus kisutch</u>	Coho salmon	MB-SLR
<u>Oncorhynchus tshawytscha</u>	Chinook salmon	MB-SLR-PR
<u>Salmo gairdneri</u>	Steelhead	MB-SLR-PR-SR

TABLE 1 (Continued)

Osmeridae			
	<u>Allosmerus elongatus</u>	Whitebait smelt	MB
	<u>Hypomesus pretiosus</u>	Surf smelt	MB-ES
	<u>Spirinchus starksi</u>	Night smelt	MB-ES
Argentinidae			
	<u>Argentina sialis</u>	Pacific argentine	MB
Bathylagidae			
	<u>Bathylagus milleri</u>	Stout blacksmelt	MB
	<u>Bathylagus ochotensis</u>	N C N ⁶	MB
	<u>Bathylagus pacificus</u>	Pacific blacksmelt	MB
	<u>Bathylagus stilbius</u>	California smoothtongue	MB
	<u>Bathylagus wesethi</u>	N C N	MB
Opisthoproctidae			
	<u>Macropinna microstoma</u>	Barreleye	MB
Gonostomatidae			
	<u>Cyclothone acclinidens</u>	Benttooth bristlemouth	MB
	<u>Cyclothone pallida</u>	N C N	MB
	<u>Cyclothone pseudopallida</u>	N C N	MB
	<u>Cyclothone signata</u>	N C N	MB
Sternoptychidae			
	<u>Argyropelecus hawaiiensis</u>	N C N	MB
	<u>Argyropelecus lychnus</u>	N C N	MB
	<u>Argyropelecus pacificus</u>	Pacific hatchetfish	MB
	<u>Sternoptyx diaphana</u>	N C N	MB
Melanostomiidae			
	<u>Tactostoma macropus</u>	Longfin dragonfish	MB
Malacosteidae			
	<u>Aristostomias scintillans</u>	Shiny loosejaw	MB
Chauliodontidae			
	<u>Chauliodus macouni</u>	Pacific viperfish	MB
Idiacanthidae			
	<u>Idiacanthus antrostomus</u>	Pacific blackdragon	MB
Alepocephalidae			
	<u>Alepocephalus tenebrosus</u>	California stickleback	MB
	<u>Sagamichthys abei</u>	Shining tubeshoulder	MB
Synodontidae			
	<u>Synodus lucioceps</u>	California lizardfish	MB-ES

TABLE 1 (Continued)

Alepisauridae		
<u>Alepisaurus ferox</u>	Longnose lancetfish	MB
Myctophidae		
<u>Diaphus theta</u>	California headlightfish	MB
<u>Lampanyctus regalis</u>	Pinpoint lampfish	MB
<u>Lampanyctus ritteri</u>	Broadfin lanternfish	MB
<u>Protomyctophum crockeri</u>	Flashlightfish	MB
<u>Stenobrachius leucopsarus</u>	Northern lampfish	MB
<u>Symbolophorus californiensis</u>	California lanternfish	MB
<u>Tarletonbeania crenularis</u>	Blue lanternfish	MB
Cyprinidae		
<u>Carassius auratus</u>	Goldfish	PR
<u>Cyprinus carpio</u>	Carp	PR-SR
<u>Hesperoleucus symmetricus</u>	California roach	SLR-PR-SR
<u>Lavinia exilicauda</u>	Hitch	PR-SR
<u>Notemigonus crysoleucas</u>	Golden shiner	PR
<u>Orthodon microlepidotus</u>	Sacramento blackfish	PR-SR
<u>Ptychocheilus grandis</u>	Sacramento squawfish	PR-SR
<u>Rhinichthys osculus</u>	Speckled dace	SLR-PR-SR
Catostomidae		
<u>Catostomus occidentalis</u>	Sacramento sucker	SLR-PR-SR
Ictaluridae		
<u>Ictalurus melas</u>	Black bullhead	PR
<u>Ictalurus nebulosus</u>	Brown bullhead	PR
Batrachoididae		
<u>Porichthys notatus</u>	Plainfin midshipman	MB-ES
Gobiesocidae		
<u>Gobiesox maeandricus</u>	Northern clingfish	MB
<u>Rimicola muscarum</u>	Kelp clingfish	MB
Ceratiidae		
<u>Cryptopsaras couesi</u>	Warted seadevil	MB
Moridae		
<u>Antimora rostrata</u>	Flatnose codling	MB
Gadidae		
<u>Gadus macrocephalus</u>	Pacific cod	MB
<u>Merluccius productus</u>	Pacific hake	MB-ES
<u>Microgadus proximus</u>	Pacific tomcod	MB-ES
<u>Theragra chalcogramma</u>	Walleye pollock	MB

TABLE 1 (Continued)

Ophidiidae			
	<u>Otophidium taylori</u>	Spotted cusk-eel	MB-ES
Zoarcidae			
	<u>Aprodon cortezianus</u>	Bigfin eelpout	MB
	<u>Bothrocara brunneum</u>	Twoline eelpout	MB
	<u>Bothrocara molle</u>	Soft eelpout	MB
	<u>Bothrocara remigerum</u>	N C N	MB
	<u>Embryx parallela</u>	N C N	MB
	<u>Lycodapus attenuatus</u>	N C N	MB
	<u>Lycodapus lycodon</u>	N C N	MB
	<u>Lycodapus mandibularis</u>	Pallid eelpout	MB
	<u>Lycodes diapterus</u>	Black eelpout	MB
	<u>Lycodopsis pacifica</u>	Blackbelly eelpout	MB
	<u>Lycinema barbatum</u>	Bearded eelpout	MB
	<u>Melanostigma pammelae</u>	N C N	MB
Macrouridae			
	<u>Coryphaenoides acrolepis</u>	Roughscale rattail	MB
	<u>Coryphaenoides pectoralis</u>	N C N	MB
Exocoetidae			
	<u>Cypselurus californicus</u>	California flyingfish	MB
Belonidae			
	<u>Strongylura exilis</u>	California needlefish	MB
Scomberesocidae			
	<u>Cololabis saira</u>	Pacific saury	MB
Cyprinodontidae			
	<u>Fundulus parvipinnis</u>	California killifish	SR
Poeciliidae			
	<u>Gambusia affinis</u>	Mosquitofish	PR-SR
Atherinidae			
	<u>Atherinops affinis</u>	Topsmelt	MB-ES-PR
	<u>Atherinopsis californiensis</u>	Jacksmelt	MB-ES-SLR-PR
	<u>Leuresthes tenuis</u>	California grunion	MB
Melamphaidae			
	<u>Poromitra crassiceps</u>	Crested bigscale	MB
	<u>Scopelogadus mizolepis</u>		
	<u>bispinosus</u>	N C N	MB
Zeidae			
	<u>Zenopsis nebulosa</u>	Mirror dory	MB

TABLE 1 (Continued)

Lamprididae			
	<u>Lampris regius</u>	Opah	MB
Trachipteridae			
	<u>Trachipterus altivelis</u>	King-of-the-salmon	MB
Gasterosteidae			
	<u>Aulorhynchus flavidus</u>	Tube-snout	MB
	<u>Gasterosteus aculeatus</u>	Threespine stickleback	MB-ES-SLR-PR-SR
Syngnathidae			
	<u>Syngnathus arctus</u>	Snubnose pipefish	ES
	<u>Syngnathus californiensis</u>	Kelp pipefish	MB-ES-SLR-PR
	<u>Syngnathus griseolineatus</u>	Bay pipefish	MB-ES-SLR
Percichthyidae			
	<u>Morone saxatilis</u>	Striped bass	MB-ES-SLR-PR-SR
	<u>Stereolepis gigas</u>	Giant sea bass	MB
Serranidae			
	<u>Paralabrax clathratus</u>	Kelp bass	MB
	<u>Paralabrax maculatofasciatus</u>	Spotted sand bass	MB
	<u>Paralabrax nebulifer</u>	Barred sand bass	MB
Centrarchidae			
	<u>Archoplites interruptus</u>	Sacramento perch	PR-SR
	<u>Lepomis cyanellus</u>	Green sunfish	PR
	<u>Lepomis gulosus</u>	Warmouth	PR
	<u>Lepomis macrochirus</u>	Bluegill	PR-SR
	<u>Lepomis microlophus</u>	Redear sunfish	PR
	<u>Micropterus salmoides</u>	Largemouth bass	PR-SR
	<u>Pomoxis nigromaculatus</u>	Black crappie	PR
Branchiostegidae			
	<u>Caulolatilus princeps</u>	Ocean whitefish	MB
Echeneidae			
	<u>Remora remora</u>	Remora	MB
Carangidae			
	<u>Decapterus hypodus</u>	Mexican scad	MB
	<u>Naucrates ductor</u>	Pilotfish	MB
	<u>Seriola dorsalis</u>	Yellowtail	MB
	<u>Trachurus symmetricus</u>	Jack mackerel	MB-ES
Pomadasyidae			
	<u>Anisotremus davidsoni</u>	Sargo	MB
	<u>Xenistius californiensis</u>	Salema	MB

TABLE 1 (Continued)

Sciaenidae			
<u>Cynoscion nobilis</u>	White seabass	MB	
<u>Genyonemus lineatus</u>	White croaker	MB-ES	
<u>Seriphus politus</u>	Queenfish	MB-ES	
Kyphosidae			
<u>Girella nigricans</u>	Opaleye	MB	
<u>Hermosilla azurea</u>	Zebra perch	MB	
<u>Medialuna californiensis</u>	Halfmoon	MB	
Embiotocidae			
<u>Amphistichus argenteus</u>	Barred surfperch	MB-ES	
<u>Amphistichus koelzi</u>	Calico surfperch	MB-SL	
<u>Amphistichus rhodoterus</u>	Redtail surfperch	MB	
<u>Brachyistius frenatus</u>	Kelp perch	MB	
<u>Cymatogaster aggregata</u>	Shiner perch	MB-ES-SLR-PR-SR	
<u>Embiotoca jacksoni</u>	Black perch	MB-ES-SLR	
<u>Embiotoca lateralis</u>	Striped seaperch	MB	
<u>Hyperprosopon anale</u>	Spotfin surfperch	MB-ES	
<u>Hyperprosopon argenteum</u>	Walleye surfperch	MB-ES	
<u>Hyperprosopon ellipticum</u>	Silver surfperch	MB	
<u>Hypsurus caryi</u>	Rainbow seaperch	MB-ES	
<u>Hysterocarpus traski</u>	Tule perch	PR-SR	
<u>Micrometrus aurora</u>	Reef perch	MB-ES	
<u>Micrometrus minimus</u>	Dwarf perch	MB-ES	
<u>Phanerodon atripes</u>	Sharpnose seaperch	MB	
<u>Phanerodon furcatus</u>	White seaperch	MB-ES-SLR	
<u>Rhacochilus toxotes</u>	Rubberlip seaperch	MB-ES-SLR	
<u>Rhacochilus vacca</u>	Pile perch	MB-ES	
<u>Zalemblus rosaceus</u>	Pink seaperch	MB	
Pomacentridae			
<u>Chromis punctipinnis</u>	Blacksmith	MB	
<u>Hypsypops rubicunda</u>	Garibaldi	MB	
Labridae			
<u>Oxyjulis californica</u>	Señorita	MB	
<u>Pimelometopon pulchrum</u>	California sheephead	MB	
Mugilidae			
<u>Mugil cephalus</u>	Striped mullet	MB	
Sphyraenidae			
<u>Sphyraena argentea</u>	Pacific barracuda	MB	
Polynemidae			
<u>Polydactylus approximans</u>	Blue bobo	MB	

TABLE 1 (Continued)

Bathymasteridae			
	<u>Rathbunella alleni</u>	Rough ronquil	MB
	<u>Ronquilus jordani</u>	Northern ronquil	MB
Clinidae			
	<u>Gibbonsia metzi</u>	Striped kelpfish	MB-ES
	<u>Gibbonsia montereyensis</u>	Crevice kelpfish	MB
	<u>Heterostichus rostratus</u>	Giant kelpfish	MB
	<u>Neoclinus blanchardi</u>	Sarcastic fringehead	MB
	<u>Neoclinus uninotatus</u>	Onespot fringehead	MB-ES
Blenniidae			
	<u>Hypsoblennius gentilis</u>	Bay blenny	MB
Stichaeidae			
	<u>Alectrias alectrolophus</u>	Stone cockscomb	MB
	<u>Anoplarchus purpureus</u>	High cockscomb	MB
	<u>Cebidichthys violaceus</u>	Monkeyface prickleback	MB
	<u>Chirolophis nugator</u>	Mosshead warbonnet	MB
	<u>Phytichthys chirus</u>	Ribbon prickleback	MB
	<u>Plagiogrammus hopkinsi</u>	Crisscross prickleback	MB
	<u>Plectobanchus evides</u>	Bluebarred prickleback	MB
	<u>Xiphister atropurpureus</u>	Black prickleback	MB
	<u>Xiphister mucosus</u>	Rock prickleback	MB
Pholidae			
	<u>Apodichthys flavidus</u>	Penpoint gunnel	MB
	<u>Pholis ornata</u>	Saddleback gunnel	MB
	<u>Xerperes fucorum</u>	Rockweed gunnel	MB
Anarhichadidae			
	<u>Anarrhichthys ocellatus</u>	Wolf-eel	MB
Ammodytidae			
	<u>Ammodytes hexapterus</u>	Pacific sand lance	MB
Gobiidae			
	<u>Acanthogobius flavimanus</u>	Yellowfin goby	ES
	<u>Clevelandia ios</u>	Arrow goby	MB-ES-PR
	<u>Coryphopterus nicholsi</u>	Blackeye goby	MB
	<u>Eucyclogobius newberryi</u>	Tidewater goby	PR-SR
	<u>Gillichthys mirabilis</u>	Longjaw mudsucker	MB-ES-SR
	<u>Lepidogobius lepidus</u>	Bay goby	MB-ES
	<u>Lethops connectens</u>	Halfblind goby	MB

TABLE 1 (Continued)

Scombridae			
<u>Sarda chiliensis</u>	Pacific bonito	MB	
<u>Scomber japonicus</u>	Chub mackerel	MB	
<u>Scomberomorus concolor</u>	Monterey Spanish mackerel	MB	
<u>Thunnus alaiunga</u>	Albacore	MB	
<u>Thunnus albacares</u>	Yellowfin tuna	MB	
<u>Thunnus thynnus</u>	Bluefin tuna	MB	
Xiphiidae			
<u>Xiphias gladius</u>	Swordfish	MB	
Luvaridae			
<u>Luvarus imperialis</u>	Louvar	MB	
Stromateidae			
<u>Icichthys lockingtoni</u>	Medusafish	MB	
<u>Peprilus simillimus</u>	Pacific pompano	MB-ES	
<u>Tetragonurus cuvieri</u>	Smalleye squaretail	MB	
Icosteidae			
<u>Icosteus aenigmaticus</u>	Ragfish	MB	
Scorpaenidae			
<u>Scorpaena guttata</u>	California scorpionfish	MB	
<u>Sebastes aleutianus</u>	Rougheye rockfish	MB	
<u>Sebastes atrovirens</u>	Kelp rockfish	MB-ES	
<u>Sebastes auriculatus</u>	Brown rockfish	MB-ES	
<u>Sebastes aurora</u>	Aurora rockfish	MB	
<u>Sebastes babcocki</u>	Redbanded rockfish	MB	
<u>Sebastes brevispinis</u>	Silvergray rockfish	MB	
<u>Sebastes carnatus</u>	Gopher rockfish	MB	
<u>Sebastes caurinus</u>	Copper rockfish	MB	
<u>Sebastes chlorostictus</u>	Greenspotted rockfish	MB	
<u>Sebastes chrysomelas</u>	Black-and-yellow rockfish	MB	
<u>Sebastes constellatus</u>	Starry rockfish	MB	
<u>Sebastes crameri</u>	Darkblotched rockfish	MB	
<u>Sebastes diploproa</u>	Splitnose rockfish	MB	
<u>Sebastes elongatus</u>	Greenstriped rockfish	MB	
<u>Sebastes entomelas</u>	Widow rockfish	MB	
<u>Sebastes eos</u>	Pink rockfish	MB	
<u>Sebastes flavidus</u>	Yellowtail rockfish	MB	
<u>Sebastes gilli</u>	Bronzespotted rockfish	MB	
<u>Sebastes goodei</u>	Chilipepper	MB	
<u>Sebastes helvomaculatus</u>	Rosethorn rockfish	MB	
<u>Sebastes hopkinsi</u>	Squarespot rockfish	MB	
<u>Sebastes jordani</u>	Shortbelly rockfish	MB	
<u>Sebastes levis</u>	Cow rockfish	MB	
<u>Sebastes macdonaldi</u>	Mexican rockfish	MB	

TABLE 1 (Continued)

Scorpaenidae

<u>Sebastes maliger</u>	Quillback rockfish	MB
<u>Sebastes melanops</u>	Black rockfish	MB
<u>Sebastes melanostomus</u>	Blackgill rockfish	MB
<u>Sebastes miniatus</u>	Vermilion rockfish	MB
<u>Sebastes mystinus</u>	Blue rockfish	MB
<u>Sebastes nebulosus</u>	China rockfish	MB
<u>Sebastes nigrocinctus</u>	Tiger rockfish	MB
<u>Sebastes ovalis</u>	Speckled rockfish	MB
<u>Sebastes paucispinis</u>	Bocaccio	MB-ES-PR
<u>Sebastes phillipsi</u>	Chameleon rockfish	MB
<u>Sebastes pinniger</u>	Canary rockfish	MB
<u>Sebastes proriger</u>	Redstripe rockfish	MB
<u>Sebastes rastrelliger</u>	Grass rockfish	MB
<u>Sebastes rosaceus</u>	Rosy rockfish	MB
<u>Sebastes rosenblatti</u>	N C N	MB
<u>Sebastes ruberrimus</u>	Yelloweye rockfish	MB
<u>Sebastes rubrivinctus</u>	Flag rockfish	MB
<u>Sebastes saxicola</u>	Stripetail rockfish	MB
<u>Sebastes semicinctus</u>	Halfbanded rockfish	MB
<u>Sebastes serranoides</u>	Olive rockfish	MB
<u>Sebastes serripes</u>	Treefish	MB
<u>Sebastes umbrosus</u>	Honeycomb rockfish	MB
<u>Sebastes vexillaris</u>	Whitebelly rockfish	MB
<u>Sebastes wilsoni</u>	Pygmy rockfish	MB
<u>Sebastes zacentrus</u>	Sharpchin rockfish	MB
<u>Sebastolobus alascanus</u>	Shortspine thornyhead	MB
<u>Sebastolobus altivelis</u>	Longspine thornyhead	MB

Anoplopomatidae

<u>Anoplopoma fimbria</u>	Sablefish	MB
<u>Erilepis zonifer</u>	Skilfish	MB

Hexagrammidae

<u>Hexagrammos decagrammus</u>	Kelp greenling	MB
<u>Hexagrammos lagocephalus</u>	Rock greenling	MB
<u>Ophiodon elongatus</u>	Lingcod	MB-ES
<u>Oxylebius pictus</u>	Painted greenling	MB
<u>Pleurogrammus monopterygius</u>	Atka mackerel	MB
<u>Zaniolepis frenata</u>	Shortspine combfish	MB
<u>Zaniolepis latipinnis</u>	Longspine combfish	MB

Cottidae

<u>Artedius corallinus</u>	Coralline sculpin	MB
<u>Artedius creaseri</u>	Roughcheek sculpin	MB
<u>Artedius harringtoni</u>	Scalyhead sculpin	MB
<u>Artedius lateralis</u>	Smoothhead sculpin	MB
<u>Artedius notospilotus</u>	Bonehead sculpin	MB

TABLE 1 (Continued)

Cottidae

<u>Blepsias cirrhosus</u>	Silverspotted sculpin	MB
<u>Chitonotus pugetensis</u>	Roughback sculpin	MB
<u>Clinocottus acuticeps</u>	Sharpnose sculpin	MB
<u>Clinocottus analis</u>	Wooly sculpin	MB
<u>Clinocottus embryum</u>	Calico sculpin	MB
<u>Clinocottus globiceps</u>	Mosshead sculpin	MB
<u>Clinocottus recalvus</u>	Bald sculpin	MB
<u>Cottus aleuticus</u>	Coastrange sculpin	SLR-SR
<u>Cottus asper</u>	Prickly sculpin	SLR-PR-SR
<u>Cottus beldingi</u>	Piute sculpin	PR
<u>Cottus gulosus</u>	Riffle sculpin	SLR-PR-SR
<u>Enophrys bison</u>	Buffalo sculpin	MB
<u>Enophrys taurina</u>	Bull sculpin	MB
<u>Hemilepidotus hemilepidotus</u>	Red Irish lord	MB
<u>Hemilepidotus spinosus</u>	Brown Irish lord	MB
<u>Icelinus burchami</u>	Dusky sculpin	MB
<u>Icelinus cavifrons</u>	Pit-head sculpin	MB
<u>Icelinus filamentosus</u>	Threadfin sculpin	MB
<u>Icelinus fimbriatus</u>	Fringed sculpin	MB
<u>Icelinus quadriseriatus</u>	Yellowchin sculpin	MB
<u>Icelinus tenuis</u>	Spotfin sculpin	MB
<u>Jordania zonope</u>	Longfin sculpin	MB
<u>Leptocottus armatus</u>	Pacific staghorn sculpin	MB-ES- SLR-PR-SR
<u>Nautichthys oculofasciatus</u>	Sailfin sculpin	MB
<u>Oligocottus maculosus</u>	Tidepool sculpin	MB
<u>Oligocottus rimensis</u>	Saddleback sculpin	MB
<u>Oligocottus rubellio</u>	Rosy sculpin	MB
<u>Oligocottus snyderi</u>	Fluffy sculpin	MB
<u>Orthonopias triacis</u>	Snubnose sculpin	MB
<u>Radulinus asprellus</u>	Slim sculpin	MB
<u>Radulinus boleoides</u>	Darter sculpin	MB
<u>Scorpaenichthys marmoratus</u>	Cabezón	MB-ES
<u>Synchirus gilli</u>	Manacled sculpin	MB
<u>Zesticelus profundorum</u>	Flabby sculpin	MB

Agonidae

<u>Agonopsis emmelane</u>	Northern spearnose poacher	MB
<u>Asterotheca pentacanthus</u>	Bigeye poacher	MB
<u>Odontopyxis trispinosa</u>	Pygmy poacher	MB
<u>Stellerina xyosterna</u>	Pricklebreast poacher	MB
<u>Xeneretmus latifrons</u>	Blacktip poacher	MB
<u>Xeneretmus leiops</u>	Cutfin poacher	MB
<u>Xeneretmus triacanthus</u>	Bluespotted poacher	MB

Cyclopteridae

<u>Careproctus melanurus</u>	Blacktail snailfish	MB
<u>Liparis cyclopus</u>	Ribbon snailfish	MB

TABLE 1 (Continued)

Cyclopteridae

<u>Liparis florum</u>	Tidepool snailfish	MB
<u>Liparis mucosus</u>	Slimy snailfish	MB
<u>Liparis pulchellus</u>	Showy snailfish	MB
<u>Lipariscus nanus</u>	N C N	MB
<u>Nectoliparis pelagicus</u>	Tadpole snailfish	MB
<u>Paraliparis albescent</u>	N C N	MB
<u>Paraliparis caudatus</u>	N C N	MB
<u>Paraliparis cephalus</u>	N C N	MB
<u>Paraliparis dactylosus</u>	N C N	MB
<u>Paraliparis deani</u>	Prickly snailfish	MB
<u>Paraliparis mento</u>	N C N	MB
<u>Paraliparis ulochir</u>	N C N	MB
<u>Rhinoliparis attenuatus</u>	N C N	MB

Bothidae

<u>Citharichthys sordidus</u>	Pacific sanddab	MB-ES
<u>Citharichthys stigmaeus</u>	Speckled sanddab	MB-ES-PR
<u>Citharichthys xanthostigma</u>	Longfin sanddab	MB
<u>Hippoglossina stomata</u>	Bigmouth sole	MB
<u>Paralichthys californicus</u>	California halibut	MB-ES
<u>Xystreurus liolepis</u>	Fantail sole	MB

Pleuronectidae

<u>Atheresthes stomias</u>	Arrowtooth flounder	MB
<u>Embassichthys bathybius</u>	Deepsea sole	MB
<u>Eopsetta jordani</u>	Petrale sole	MB
<u>Glyptocephalus zachirus</u>	Rex sole	MB
<u>Hippoglossus stenolepis</u>	Pacific halibut	MB
<u>Hypsopsetta guttulata</u>	Diamond turbot	MB-ES
<u>Isopsetta isolepis</u>	Butter sole	MB
<u>Lepidopsetta bilineata</u>	Rock sole	MB
<u>Lyopsetta exilis</u>	Slender sole	MB
<u>Microstomus pacificus</u>	Dover sole	MB
<u>Parophrys vetulus</u>	English sole	MB-ES-PR
<u>Platichthys stellatus</u>	Starry flounder	MB-ES-SLR-PR-SR
<u>Pleuronichthys coenosus</u>	C-O sole	MB
<u>Pleuronichthys decurrens</u>	Curlfin sole	MB-ES
<u>Pleuronichthys verticalis</u>	Hornyhead turbot	MB
<u>Psettichthys melanostictus</u>	Sand sole	MB-ES

Cynoglossidae

<u>Symphurus atricauda</u>	California tonguefish	MB-ES
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Balistidae

<u>Balistes polylepis</u>	Finescale triggerfish	MB
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Molidae

<u>Mola mola</u>	Ocean sunfish	MB
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TABLE 1 (Continued)

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- 1 Monterey Bay - MB
 - 2 Elkhorn Slough - ES
 - 3 San Lorenzo River - SLR
 - 4 Pajaro River - PR
 - 5 Salinas River - SR
 - 6 No common name - N C N

TABLE 2

FISHES EXPECTED BUT NOT YET FOUND IN MONTEREY BAY AREA

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>REFERENCE</u>
Squalidae	<u>Somniosus pacificus</u>	Pacific sleeper shark	102
Rajidae	<u>Bathyraja spinosissima</u>	N C N	102
	<u>Raja abyssicola</u>	Deep sea skate	102
	<u>Raja trachura</u>	Roughtail skate	102
Dasyatidae	<u>Dasyatis dipterura</u>	Diamond stingray	102
Mobulidae	<u>Mobula japanica</u>	Spinetail mobula	102
Acipenseridae	<u>Acipenser transmontanus</u>	White sturgeon	102
Ophichthidae	<u>Ophichthus zophochir</u>	Yellow snake eel	102
Serrivomeridae	<u>Serrivomer sector</u>	Sawtooth snipe-eel	35
Nemichthyidae	<u>Nemichthys scolopaceus</u>	Slender snipe-eel	35
Cyemidae	<u>Cyema atrum</u>	Bobtail snipe-eel	35
Clupeidae	<u>Etrumeus teres</u>	Round herring	150
Gonostomatidae	<u>Danaphos oculatus</u>	Bigeye lightfish	102
Sternoptychidae	<u>Argyropelecus intermedius</u>	N C N	102
Melanostomiidae	<u>Bathophilus fleming</u>	Highfin dragonfish	102
Alepocephalidae	<u>Narcetes stomias</u>	N C N	7

TABLE 2 (Continued)

Paralepididae			
	<u>Lestidium ringens</u>	Slender barracudina	102
	<u>Paralepis atlantica</u>	N C N	91
Anotopteridae			
	<u>Anotopterus pharao</u>	Dagger tooth	102
Scopelarchidae			
	<u>Benthalbella dentata</u>	Northern pearleye	102
	<u>Benthalbella linguidens</u>	Longfin pearleye	35
Scopelosauridae			
	<u>Scopelosaurus harryi</u>	Scaly paperbone	35
Myctophidae			
	<u>Geratoscopelus townsendi</u>	Dogtooth lampfish	27
	<u>Notoscopelus resplendens</u>	Patchwork lampfish	27
	<u>Triphoturus mexicanus</u>	Mexican lampfish	102
Oneirodidae			
	<u>Oneirodes acanthias</u>	Pacific dreamer	35
Moridae			
	<u>Physiculus rastrelliger</u>	N C N	102
Ophidiidae			
	<u>Brosmophycis marginata</u>	Red brotula	102
Zoarcidae			
	<u>Embryx crotalina</u>	Snakehead eelpout	102
	<u>Lycodapus tetraserfer</u>	Blackmouth eelpout	102
Macrouridae			
	<u>Nezumia liolepis</u>	N C N	7
	<u>Nezumia stelgidolepis</u>	California rattail	102
Melamphidae			
	<u>Melamphaes lugubris</u>	Highsnout melamphid	7
Anoplogasteridae			
	<u>Anoplogaster cornuta</u>	Fangtooth	35
Oreosomatidae			
	<u>Allocyttus folletti</u>	Oxeye oreo	35
Syngnathidae			
	<u>Hippocampus ingens</u>	Pacific seahorse	102
Serranidae			
	<u>Mycteroperca xenarcha</u>	Broomtail grouper	102

TABLE 2 (Continued)

Apogonidae			
	<u>Howella brodiei</u>	Pelagic basslet	35
Echeneidae			
	<u>Remora australis</u>	Whalesucker	102
	<u>Remorina albescens</u>	White suckerfish	7
Coryphaenidae			
	<u>Coryphaena hippurus</u>	Dolphin	150
Bramidae			
	<u>Brama japonica</u>	Pacific pomfret	102
Caristiidae			
	<u>Caristius macropus</u>	Veilfin	35
Sciaenidae			
	<u>Umbrina roncadore</u>	Yellowfin croaker	7
Pentacerotidae			
	<u>Pentaceros richardsoni</u>	Pelagic armorhead	102
Clinidae			
	<u>Neoclinus stephensae</u>	Yellowfin fringehead	102
Stichaeidae			
	<u>Poroclinus rothrocki</u>	Whitebarred prickleback	102
Pholidae			
	<u>Pholis schultzi</u>	Red gunnel	102
Scytalinidae			
	<u>Scytalina cerdale</u>	Graveldiver	102
Gobiidae			
	<u>Ilypnus gilberti</u>	Cheekspot goby	102
	<u>Tridentiger trionocephalus</u>	Trident goby	102
Trichiuridae			
	<u>Lepidopus xantusi</u>	Scabbardfish	102
Scombridae			
	<u>Euthynnus pelamis</u>	Skipjack tuna	150
	<u>Thunnus obesus</u>	Bigeye tuna	150
Istiophoridae			
	<u>Istiophorus platypterus</u>	Sailfish	102
	<u>Tetrapturus angustirostris</u>	Shortbill spearfish	150

TABLE 2 (Continued)

Scorpaenidae			
	<u>Sebastes alutus</u>	Pacific ocean perch	102
	<u>Sebastes dalli</u>	Calico rockfish	102
	<u>Sebastes rufus</u>	Bank rockfish	102
Triglidae			
	<u>Prionotus stephanophrys</u>	Lumptail searobin	102
Cottidae			
	<u>Artedius fenestralis</u>	Padded sculpin	102
	<u>Icelinus oculatus</u>	Frogmouth sculpin	17
	<u>Paricelinus hopliticus</u>	Thornback sculpin	102
	<u>Rhamphocottus richardsoni</u>	Grunt sculpin	150
Agonidae			
	<u>Bothragonus swani</u>	Rockhead	102
Cyclopteridae			
	<u>Liparis fucensis</u>	Slipskin snailfish	102
Pleuronectidae			
	<u>Reinhardtius hippoglossoides</u>	Greenland halibut	69
Tetraodontidae			
	<u>Lagocephalus lagocephalus</u>	Oceanic puffer	150

TABLE 3

FISHES REPORTED FROM THE MONTEREY BAY AREA

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Myxinidae	<u>Eptatretus deani</u>	104-113-125
	<u>Eptatretus stouti</u>	43-44-54-87-89-90-99-113-125-153-161
Petromyzontidae	<u>Entosphenus tridentatus</u>	87-89-104
Hexanchidae	<u>Hexanchus griseus</u>	79-87-89-90-95-104-125
	<u>Notorynchus maculatus</u>	79-87-89-153
Heterodontidae	<u>Heterodontus francisci</u>	68-87
Alopiidae	<u>Alopias vulpinus</u>	87-89-125-153
Lamnidae	<u>Carcharodon carcharias</u>	31-87-88-89-171
	<u>Cetorhinus maximus</u>	6-24-31-87-88-89-90-125-135-155-171 178
	<u>Isurus oxyrinchus</u>	171
	<u>Lamna ditropis</u>	31-79-87-89
Scyliorhinidae	<u>Apristurus brunneus</u>	58-104-113-151
	<u>Cephaloscyllium ventriosum</u>	87-89-90
	<u>Parmaturus xaniurus</u>	43-58-104-111-113
Carcharhinidae	<u>Galeorhinus zyopterus</u>	58-87-88-89-90-111-112-113-125-153
	<u>Mustelus californicus</u>	87-88-89-153
	<u>Mustelus henlei</u>	87-89-90-104-112-113-125-153-161
	<u>Prionace glauca</u>	54-104-113-153-161
	<u>Triakis semifasciata</u>	1-54-87-89-95-106-112-113-125-153 161-183
Squalidae	<u>Echinorhinus cookei</u>	95-104-110
	<u>Squalus acanthias</u>	54-58-87-89-95-111-112-113-125-153 161-183
Squatinae	<u>Squatina californica</u>	87-89-95-104-125

TABLE 3 (Continued)

Rhinobatidae		
	<u>Platyrrhinoidis triseriata</u>	89
	<u>Rhinobatos productus</u>	68-89-95
Torpedinidae		
	<u>Torpedo californica</u>	58-87-89-90-104-114-153-161
Rajidae		
	<u>Raja binoculata</u>	58-81-87-89-95-112-113-125-161
	<u>Raja inornata</u>	1-43-46-54-58-87-89-90-106-111 114-125-153-161-184
	<u>Raja kincaidi</u>	54-58
	<u>Raja rhina</u>	43-46-54-58-80-87-89-90-95-111-114
	<u>Raja stellulata</u>	43-58-81-87-89-90
Dasyatidae		
	<u>Urolophus halleri</u>	161-183
Myliobatidae		
	<u>Myliobatis californica</u>	87-89-111-112-113-125-161
Chimaeridae		
	<u>Hydrolagus collieri</u>	44-58-87-89-90-95-104-107-114-115 153-161
Acipenseridae		
	<u>Acipenser medirostris</u>	95-104
Albulidae		
	<u>Albula vulpes</u>	87
Clupeidae		
	<u>Alosa sapidissima</u>	58-161
	<u>Clupea harengus pallasii</u>	44-54-58-87-89-100-104-107-122 153-161-183
	<u>Sardinops sagax</u>	87-89-96-107-122-134-153
Engraulidae		
	<u>Engraulis mordax</u>	10-44-54-87-89-107-109-122-153 161-183
Salmonidae		
	<u>Oncorhynchus gorbusha</u>	154
	<u>Oncorhynchus keta</u>	154
	<u>Oncorhynchus kisutch</u>	153-154
	<u>Oncorhynchus tshawytscha</u>	87-89-90-101-104-125-153-154-156 157-161-170
	<u>Salmo gairdneri</u>	87-90-156-158

TABLE 3 (Continued)

Osmeridae		
	<u>Allosmerus elongatus</u>	107-153
	<u>Hypomesus pretiosus</u>	44-54-89-109-132-153-183
	<u>Spirinchus starksi</u>	43-54-87-89-90-104-153-161-184
Argentinidae		
	<u>Argentina sialis</u>	37
Bathylagidae		
	<u>Bathylagus milleri</u>	94
	<u>Bathylagus ochotensis</u>	94
	<u>Bathylagus pacificus</u>	6
	<u>Bathylagus stilbius</u>	5-28-39-43-46-94-104-161
	<u>Bathylagus wesethi</u>	12-94
Opisthoproctidae		
	<u>Macropinna microstoma</u>	20
Gonostomatidae		
	<u>Cyclothone acclinidens</u>	94
	<u>Cyclothone pallida</u>	94
	<u>Cyclothone pseudopallida</u>	94
	<u>Cyclothone signata</u>	5-6-54-94-104
Sternoptychidae		
	<u>Argyropelecus hawaiiensis</u>	94
	<u>Argyropelecus lychnus</u>	94-104
	<u>Argyropelecus pacificus</u>	94
	<u>Sternoptyx diaphana</u>	43-94
Melanostomiidae		
	<u>Tactostoma macropus</u>	6-13-94
Malacosteidae		
	<u>Aristostomias scintillans</u>	46
Chauliodontidae		
	<u>Chauliodus macouni</u>	6-43-44-46-94-104
Idiacanthidae		
	<u>Idiacanthus antrostomus</u>	6
Alepocephalidae		
	<u>Alepocephalus tenebrosus</u>	43-104
	<u>Sagamichthys abei</u>	94
Synodontidae		
	<u>Synodus lucioceps</u>	54-87-89-90

TABLE 3 (Continued)

Alepisauridae	
<u>Alepisaurus ferox</u>	6-104-117-119-123-153-162
Myctophidae	
<u>Diaphus theta</u>	6-14-39-94-104
<u>Lampanyctus regalis</u>	14-46-94
<u>Lampanyctus ritteri</u>	14-39-46-94
<u>Protomyctophum crockeri</u>	94-104
<u>Stenobranchius leucopsarus</u>	5-6-14-39-43-46-54-94-104-153
<u>Symbolophorus californiensis</u>	94-104
<u>Tarletonbeania crenularis</u>	4-6-14-39-94-104-153
Batrachoididae	
<u>Porichthys notatus</u>	43-54-58-87-89-90-92-95-99-104 109-114-153-161-183-184
Gobiesocidae	
<u>Gobiesox maeandricus</u>	21-54-73-87-89-90-92-93-104-153 161-181-183
<u>Rimicola muscarum</u>	21-54-104-153
Ceratiidae	
<u>Cryptopsaras couesi</u>	32
Moridae	
<u>Antimora rostrata</u>	43-104-114
Gadidae	
<u>Gadus macrocephalus</u>	136-138
<u>Merluccius productus</u>	6-43-54-58-87-89-90-95-99-101-107 109-111-114-125-153-161
<u>Microgadus proximus</u>	54-87-89-104-109-153-161-184
<u>Theragra chalcogramma</u>	87-89-131
Ophidiidae	
<u>Otophidium taylori</u>	43-54-58-60-87-89-90-99-104-109 153-161-168-184
Zoarcidae	
<u>Aprodon cortezianus</u>	43
<u>Bothrocara brunneum</u>	46
<u>Bothrocara molle</u>	43
<u>Bothrocara remigerum</u>	46
<u>Embryx parallela</u>	46
<u>Lycodapus attenuatus</u>	46
<u>Lycodapus lycodon</u>	46
<u>Lycodapus mandibularis</u>	46-104

TABLE 3 (Continued)

Zoarcidae		
	<u>Lycodes diapterus</u>	43-44-46-99-104-161-180
	<u>Lycodopsis pacifica</u>	43-104-161
	<u>Lyconema barbatum</u>	43
	<u>Melanostigma pammelas</u>	43-46
Macrouridae		
	<u>Coryphaenoides acrolepis</u>	6-44-46-104-111-112-114-175
	<u>Coryphaenoides pectoralis</u>	114
Exocoetidae		
	<u>Cypselurus californicus</u>	68
Belonidae		
	<u>Strongylura exilis</u>	129
Scomberesocidae		
	<u>Cololabis saira</u>	39-87-89-90-94-104-122-153-161
Atherinidae		
	<u>Atherinops affinis</u>	25-44-54-87-89-109-110-153-183-184
	<u>Atherinopsis californiensis</u>	1-8-43-44-54-87-89-101-106-110-111 112-115-153-161-183
	<u>Leuresthes tenuis</u>	47-132-150-176
Melamphaidae		
	<u>Poromitra crassiceps</u>	43-46-94
	<u>Scopelogadus mizolepis</u>	
	<u>bispinosus</u>	94
Zeidae		
	<u>Zenopsis nebulosa</u>	51
Lamprididae		
	<u>Lampris regius</u>	33-150
Trachipteridae		
	<u>Trachipterus altivelis</u>	34-89-94-104-121-163
Gasterosteidae		
	<u>Aulorhynchus flavidus</u>	43-87-89-90
	<u>Gasterosteus aculeatus</u>	44-87
Syngnathidae		
	<u>Syngnathus californiensis</u>	43-54-59-87-89-90-92-110-153-161-183
	<u>Syngnathus griseolineatus</u>	44-59-153

TABLE 3 (Continued)

Percichthyidae	
<u>Morone saxatilis</u>	44-54-104-107-184
<u>Stereolepis gigas</u>	87-89-101-116-139
Serranidae	
<u>Paralabrax clathratus</u>	47-87-89-90-101-113-153-167
<u>Paralabrax maculatofasciatus</u>	102
<u>Paralabrax nebulifer</u>	68-87-89
Branchiostegidae	
<u>Caulolatilus princeps</u>	87-89-90-112
Echeneidae	
<u>Remora remora</u>	153
Carangidae	
<u>Decapterus hypodus</u>	41-153
<u>Naucrates ductor</u>	102
<u>Seriola dorsalis</u>	185
<u>Trachurus symmetricus</u>	54-58-87-89-101-107-120-152-153
	158-185
Pomadasyidae	
<u>Anisotremus davidsoni</u>	102
<u>Xenistius californiensis</u>	126
Sciaenidae	
<u>Cynoscion nobilis</u>	47-87-89-90-107-122-125-150-165-185
<u>Genyonemus lineatus</u>	1-38-43-58-87-89-90-95-101-104-106
	107-109-110-111-112-114-122-126
	153-161-165-183-185
<u>Seriphus politus</u>	87-89-122-165
Kyphosidae	
<u>Girella nigricans</u>	47-68-72-87-89-150-153
<u>Hermosilla azurea</u>	144
<u>Medialuna californiensis</u>	40-47-150-153
Embiotocidae	
<u>Amphistichus argenteus</u>	1-43-44-72-87-89-90-101-104-106-109
	110-112-153-174-183
<u>Amphistichus koelzi</u>	1-54-104-106-153-174
<u>Amphistichus rhodoterus</u>	1-87-89-90
<u>Brachyistius frenatus</u>	54-87-89-90-104-109-166-174
<u>Cymatogaster aggregata</u>	1-43-46-52-54-87-89-90-92-95-99-101
	106-109-110-153-161-174-183-184
<u>Embiotoca jacksoni</u>	1-54-87-89-90-106-153-166-174-183
<u>Embiotoca lateralis</u>	1-54-87-89-90-104-153-174

TABLE 3 (Continued)

Embiotocidae	
<u>Hyperprosopon anale</u>	43-46-87-89-90-99-104-106-109-110 153-161-174
<u>Hyperprosopon argenteum</u>	1-43-54-87-89-90-95-101-106-109-110 153-174-183-184
<u>Hyperprosopon ellipticum</u>	1-54-87-89-90-104-110-153-174-184
<u>Hypsurus caryi</u>	1-49-54-72-87-89-90-104-153-174
<u>Micrometrus aurora</u>	54-75-87-89-90-92-93-104-153-174-183
<u>Micrometrus minimus</u>	44-54-87-89-90-153-161-174-181-183
<u>Phanerodon atripes</u>	1-49-76-87-89-90-104-106-153-166-174
<u>Phanerodon furcatus</u>	1-43-87-89-90-95-109-110-153-161-166 174-183-184
<u>Rhacochilus toxotes</u>	54-87-89-90-95-109-153-161-174
<u>Rhacochilus vacca</u>	43-54-58-72-87-89-90-95-109-114-166 174-183
<u>Zalembeus rosaceus</u>	43-46-58-95-99-104-114-153-161-174-184
Pomacentridae	
<u>Chromis punctipinnis</u>	104-141-150-172
<u>Hypsypops rubicunda</u>	68
Labridae	
<u>Oxyjulis californica</u>	54-87-89-90-104-153
<u>Pimelometopon pulchrum</u>	87-89-122-150-153-185
Mugilidae	
	<u>Mugil cephalus</u> 87-89
Sphyraenidae	
	<u>Sphyraena argentea</u> 68-87-
Polynemidae	
	<u>Polydactylus approximans</u> 38-150
Bathymasteridae	
	<u>Rathbunella alleni</u> 168
	<u>Ronquilus jordani</u> 102
Clinidae	
	<u>Gibbonsia metzi</u> 43-54-
	<u>Gibbonsia montereyensis</u> 54-70-
	<u>Heterostichus rostratus</u> 54-70-
	<u>Neoclinus blanchardi</u> 71-87-
	<u>Neoclinus uninotatus</u> 63-71-
Blenniidae	
	<u>Hypsoblennius gentilis</u> 68

70-73-92-93-104-153-161-181-183
 87-89-90-104-153
 72-87-89-90-153
 89-90-168
 87-89-90-104-153-168.

89-122-150-160

TABLE 3 (Continued)

Stichaeidae	
<u>Alectrias alectrolophus</u>	87-89
<u>Anoplarchus purpureus</u>	54-92-93-104-153-181-183
<u>Cebidichthys violaceus</u>	54-87-90-92-93-104-153
<u>Chirolophis nugator</u>	11
<u>Phytichthys chirus</u>	84-87-89-90-92
<u>Plagiogrammus hopkinsi</u>	102
<u>Plectobranhus evides</u>	46
<u>Xiphister atropurpureus</u>	2-54-73-84-87-89-90-92-93-104-153 181-183
<u>Xiphister mucosus</u>	54-73-87-89-90-92-93-153
Pholidae	
<u>Apodichthys flavidus</u>	87-89-153-161-181
<u>Pholis ornata</u>	102
<u>Xerperes fucorum</u>	43-54-73-84-87-89-90-92-93-104-153-183
Anarhichadidae	
<u>Anarrhichthys ocellatus</u>	1-58-72-87-89-90-112-114-153
Ammodytidae	
<u>Ammodytes hexapterus</u>	87-89-90
Gobiidae	
<u>Clevelandia ios</u>	92
<u>Coryphopterus nicholsi</u>	46-153-168
<u>Gillichthys mirabilis</u>	89
<u>Lepidogobius lepidus</u>	43
<u>Lethops connectens</u>	7
Scombridae	
<u>Sarda chiliensis</u>	32-47-87-89-101-107-122-150-153
<u>Scomber japonicus</u>	87-89-101-107-109-122-127-152-153-158
<u>Scomberomorus concolor</u>	68-87-89-90-120
<u>Thunnus alalunga</u>	5-87-89-101-104-107-118-122-159-185
<u>Thunnus albacares</u>	32-107
<u>Thunnus thynnus</u>	5-32-150
Xiphiidae	
<u>Xiphias gladius</u>	107-150
Luvaridae	
<u>Luvarus imperialis</u>	15
Stromateidae	
<u>Icichthys lockingtoni</u>	66-104-105-161
<u>Peprilus simillimus</u>	87-89-90-107-109-153-161
<u>Tetragonurus cuvieri</u>	150

TABLE 3 (Continued)

<u>Icosteidae</u>	
<u>Icosteus</u> <u>aenigmaticus</u>	16-46-104-168-177
<u>Scorpaenidae</u>	
<u>Scorpaena</u> <u>guttata</u>	68-104
<u>Sebastes</u> <u>aleutianus</u>	102
<u>Sebastes</u> <u>atrovirens</u>	72-86-87-89-90-104-128
<u>Sebastes</u> <u>auriculatus</u>	43-72-86-87-89-95-101-112-128-153-161
<u>Sebastes</u> <u>aurora</u>	43-58-113
<u>Sebastes</u> <u>paucispinis</u>	113-128-153-161
<u>Sebastes</u> <u>brevispinis</u>	72-86-87-89-90-104-128
<u>Sebastes</u> <u>carinatus</u>	44-54-82-86-87-89-90-101-114-128-153-181-183
<u>Sebastes</u> <u>caurinus</u>	54-95-101-110-112-113-128-153-161
<u>Sebastes</u> <u>chlorostictus</u>	43-44-58-78-85-86-87-89-90-101-114-125-128
<u>Sebastes</u> <u>chrysomelas</u>	87-89-90-101-104-128-153
<u>Sebastes</u> <u>constellatus</u>	54-78-86-87-89-90-101-112-113-128-181
<u>Sebastes</u> <u>crameri</u>	58-95-153-161
<u>Sebastes</u> <u>diploproa</u>	43-46-58-104-112-113-128-143
<u>Sebastes</u> <u>elongatus</u>	43-44-46-54-58-78-86-87-89-90-101-112-114-128-153
<u>Sebastes</u> <u>entomelas</u>	54-58-72-86-87-89-90-101-128-140-153
<u>Sebastes</u> <u>eos</u>	113
<u>Sebastes</u> <u>flavidus</u>	44-54-58-86-87-89-90-95-101-104-112-113-122-128-140-143-153-183-184
<u>Sebastes</u> <u>gilli</u>	102
<u>Sebastes</u> <u>goodei</u>	43-44-54-58-95-101-103-104-113-128-143-183
<u>Sebastes</u> <u>helvomaculatus</u>	43-86-87-89-90-101-113-128-153
<u>Sebastes</u> <u>hopkinsi</u>	101-104-128-153
<u>Sebastes</u> <u>jordani</u>	43-58-103-104-128-140
<u>Sebastes</u> <u>levis</u>	58-72-128
<u>Sebastes</u> <u>macdonaldi</u>	141-150
<u>Sebastes</u> <u>maliger</u>	44-77-86-87-89-90-128-153
<u>Sebastes</u> <u>melanops</u>	46-54-72-86-87-89-90-101-128-153-161-184
<u>Sebastes</u> <u>melanostomus</u>	58-111-114-128
<u>Sebastes</u> <u>miniatus</u>	44-46-54-58-83-86-87-89-90-101-112-113-128-140-183
<u>Sebastes</u> <u>mystinus</u>	44-50-54-72-87-89-90-101-104-112-113-128-153-181-183-184
<u>Sebastes</u> <u>nebulosus</u>	86-87-89-90-101-113-128-153-181
<u>Sebastes</u> <u>nigrocinctus</u>	87-89-90-128
<u>Sebastes</u> <u>ovalis</u>	58-72-86-87-89-90-101-113-128
<u>Sebastes</u> <u>paucispinis</u>	44-54-58-72-86-87-89-90-93-95-101-103-104-109-112-114-128-140-143-153-161-181-183

TABLE 3 (Continued)

Scorpaenidae

<u>Sebastes phillipsi</u>	102
<u>Sebastes pinniger</u>	44-46-54-58-86-87-89-90-101-112-113 128-153-181
<u>Sebastes proriger</u>	78-86-87-89-90-128
<u>Sebastes rastrelliger</u>	86-87-89-90-101-128-153
<u>Sebastes rosaceus</u>	54-78-86-87-89-90-101-112-113-128-153
<u>Sebastes rosenblatti</u>	113
<u>Sebastes ruberrimus</u>	44-46-86-87-89-90-101-104-113-128
<u>Sebastes rubrivinctus</u>	54-85-86-87-89-90-101-104-111-113 128-140
<u>Sebastes saxicola</u>	43-44-46-58-101-103-111-112-114-128-161
<u>Sebastes semicinctus</u>	46-101
<u>Sebastes serranoides</u>	101-112-113-128-153-183
<u>Sebastes serripes</u>	54-86-87-89-90-128
<u>Sebastes umbrosus</u>	102
<u>Sebastes vexillaris</u>	44-54-86-87-89-90-95-128-153
<u>Sebastes wilsoni</u>	46
<u>Sebastes zacentrus</u>	46-58
<u>Sebastes alascanus</u>	43-44-46-58-104-113-128-161
<u>Sebastes altivelis</u>	43-44-46-113

Anoplopomatidae

<u>Anoplopoma fimbria</u>	29-39-46-54-58-87-89-95-99-101-104-107 111-112-114-122-137-153-161-185
<u>Erilepis zonifer</u>	87-89-97-146-147

Hexagrammidae

<u>Hexagrammos decagrammus</u>	39-54-72-87-89-90-101-104-107-109 112-113-153-183-185
<u>Hexagrammos lagocephalus</u>	54-87-89-153-183
<u>Ophiodon elongatus</u>	1-44-46-54-58-72-87-89-90-95-101-104 106-107-112-114-122-125-153-161 183-184-185
<u>Oxylebius pictus</u>	46-54-72-87-89-90-92-104-153
<u>Pleuragrammus monopterygius</u>	19-46-54-72-87-89-90-92-104-153

4-58-99-104-114-153-161-184

<u>Zaniolepis frenata</u>	46
<u>Zaniolepis latipinnis</u>	43-46-5

Cottidae

04-153

4-87-89-104-153-161-183

53

5-104-153-161-184

<u>Artedius corallinus</u>	11-17
<u>Artedius creaseri</u>	17
<u>Artedius harringtoni</u>	17-54-1
<u>Artedius lateralis</u>	17-22-5
<u>Artedius notospilotus</u>	17-89-1
<u>Blepsias cirrhosus</u>	54
<u>Chitonotus pugetensis</u>	17-43-4
<u>Clinocottus acuticeps</u>	17

TABLE 3 (Continued)

Cottidae

<u>Clinocottus analis</u>	17-22-43-54-64-73-87-89-90-92-93-104 153-181-183
<u>Clinocottus embryum</u>	17
<u>Clinocottus globiceps</u>	17-54-87-89-93-104-153
<u>Clinocottus recalvus</u>	17-54-73-92-93-104-153-181-183
<u>Enophrys bison</u>	17-95-104
<u>Enophrys taurina</u>	17-45
<u>Hemilepidotus hemilepidotus</u>	17-106-113
<u>Hemilepidotus spinosus</u>	17-87-89-90-101-112-113-153
<u>Icelinus burchami</u>	17-46
<u>Icelinus cavifrons</u>	9-17
<u>Icelinus filamentosus</u>	17-43-46-54-58-104-113-153
<u>Icelinus fimbriatus</u>	9-17-104
<u>Icelinus guadalupensis</u>	17-43-46-104-161-168
<u>Icelinus tenuis</u>	17-43-46-54-153
<u>Jordania zonocephala</u>	11-17
<u>Leptocottus armatus</u>	1-17-54-87-89-90-92-95-104-106-109 110-153-161-184
<u>Nautichthys oculofasciatus</u>	17-112-113
<u>Oligocottus maculosus</u>	17-43-87-89-90-110-153
<u>Oligocottus rimensis</u>	17-54-92-104-153
<u>Oligocottus rubellio</u>	17-54-73-92-153
<u>Oligocottus snyderi</u>	17-54-73-92-93-104-153-161-181-183
<u>Orthonopias triacis</u>	17-45-153
<u>Radulinus asprellus</u>	17-46
<u>Radulinus boleoides</u>	17
<u>Scorpaenichthys marmoratus</u>	1-17-31-54-87-89-90-93-101-104 106-107-111-112-113-125-153 181-183-184-185
<u>Synchirus gilli</u>	18-54
<u>Zesticelus profundorum</u>	17-46

Agonidae

<u>Agonopsis emmelane</u>	46-104-168-184
<u>Asterotheca pentacanthus</u>	43-46-54
<u>Odontopyxis trispinosa</u>	43-46-89-104-153-161-184
<u>Stellerina xyosterna</u>	74-87-89-90-104-161-184
<u>Xeneretmus latifrons</u>	43-44-46-104-161
<u>Xeneretmus leiops</u>	11
<u>Xeneretmus triacanthus</u>	43-46-104-161

TABLE 3 (Continued)

Cyclopteridae

<u>Careproctus melanurus</u>	43
<u>Liparis cyclopus</u>	89
<u>Liparis florum</u>	54-92-104-153-181
<u>Liparis mucosus</u>	23-87
<u>Liparis pulchellus</u>	87-89-90-104-184
<u>Lipariscus nanus</u>	46
<u>Nectoliparis pelagicus</u>	46
<u>Paraliparis albescens</u>	46
<u>Paraliparis caudatus</u>	46
<u>Paraliparis cephalus</u>	43
<u>Paraliparis dactylosus</u>	43
<u>Paraliparis deani</u>	46
<u>Paraliparis mento</u>	46
<u>Paraliparis ulochir</u>	46
<u>Rhinoliparis attenuatus</u>	46

89-90-95-101-104	<u>Citharichthys sordidus</u>	3-43-44-54-58-72-87
14-153-161-183		109-110-111-112-113
110-153-161-183	<u>Citharichthys stigmaeus</u>	1-43-54-95-106-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200
01-107-109-114	<u>Citharichthys xanthostigma</u>	147
85	<u>Hippoglossina stomata</u>	145
	<u>Paralichthys californicus</u>	43-54-87-89-90-95-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200
	<u>Xystreurys liolepis</u>	43-46-142

Pleuronectidae

<u>Atheresthes stomias</u>	107
<u>Emmargichthys bathybius</u>	44

TABLE 3 (Continued)

Pleuronectidae

<u>Platichthys stellatus</u>	1-44-54-87-89-90-95-99-101-106-107 108-109-110-111-114-125-133-153 161-183-184
<u>Pleuronichthys coenosus</u>	22-87-89-90
<u>Pleuronichthys decurrens</u>	22-43-58-87-89-90-99-104-114-125 153-161-168-184
<u>Pleuronichthys verticalis</u>	22-46-87-89-90-104-109-114-125-153 161
<u>Psettichthys melanostictus</u>	43-44-46-54-87-89-90-101-104-106 107-109-110-111-114-125-153-161 183-184

Cynoglossidae

<u>Symphurus atricauda</u>	99-104-109-130-161-183-184
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Balistidae

<u>Balistes polylepis</u>	19-104-150
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Molidae

<u>Mola mola</u>	48-87-153-161
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TABLE 4

FISHES REPORTED FROM ELKHORN SLOUGH

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>AREA OF OCCURRENCE</u>
Myxinidae	<u>Eptatretus stouti</u>	Pacific hagfish	C ¹
Carcharhinidae	<u>Mustelus californicus</u>	Gray smoothhound	C-U ²
	<u>Mustelus henlei</u>	Brown smoothhound	C-U
	<u>Triakis semifasciata</u>	Leopard shark	N ³ -C-U
Rhinobatidae	<u>Platyrrhinoidis triseriata</u>	Thornback	U
	<u>Rhinobatos productus</u>	Shovelnose guitarfish	N-C-U
Dasyatidae	<u>Urolophus halleri</u>	Round stingray	N-C-U
Myliobatidae	<u>Myliobatis californica</u>	Bat ray	N-C-U
Ophichthidae	<u>Ophichthus triseriatis</u>	Pacific snake eel	S ⁴ -U
Clupeidae	<u>Alosa sapidissima</u>	American shad	N-C
	<u>Clupea harengus californica</u>	Pacific herring	N-C-S-U
	<u>Dorosoma petenense</u>	Threadfin shad	N-U
	<u>Sardinops sagax</u>	Pacific sardine	N-C-S
Engraulidae	<u>Engraulis mordax</u>	Northern anchovy	N-C-S-U
Osmeridae	<u>Hypomesus pretiosus</u>	Surf smelt	N-C-S-U
	<u>Spirinchus starksi</u>	Night smelt	S
Synodontidae	<u>Synodus lucioceps</u>	California lizardfish	N
Batrachoididae	<u>Porichthys notatus</u>	Plainfin midshipman	N-U
Cadidae	<u>Merluccius productus</u>	Pacific hake	S
	<u>Microgadus proximus</u>	Pacific tomcod	N

TABLE 4 (Continued)

Ophidiidae			
<u>Otophidium taylori</u>	Spotted cusk-eel	N-C	
Atherinidae			
<u>Atherinops affinis</u>	Topsmelt	N-C-S-U	
<u>Atherinopsis californiensis</u>	Jacksmelt	N-C-S-U	
Gasterosteidae			
<u>Gasterosteus aculeatus</u>	Threespine stickleback	N-S-U	
Syngnathidae			
<u>Syngnathus arctus</u>	Snubnose pipefish	U	
<u>Syngnathus californiensis</u>	Kelp pipefish	N-S-U	
<u>Syngnathus griseolineatus</u>	Bay pipefish	U	
Percichthyidae			
<u>Morone saxatilis</u>	Striped bass	N-C-S-U	
Carangidae			
<u>Trachurus symmetricus</u>	Jack mackerel	N-C-S-U	
Sciaenidae			
<u>Genyonemus lineatus</u>	White croaker	N-S-U	
<u>Seriphus politus</u>	Queenfish	N-C	
Embiotocidae			
<u>Amphistichus argenteus</u>	Barred surfperch	U	
<u>Gasterosteus aggregatus</u>	Shiner perch	N-C-S-U	
<u>Gasterosteus jacksoni</u>	Black perch	N-C-S-U	
<u>Prosopon anale</u>	Spotfin surfperch	U	
<u>Prosopon argenteum</u>	Walleye surfperch	N-C-U	
<u>Prosopon caryi</u>	Rainbow seaperch	U	
<u>Metropus aurora</u>	Reef perch	C-U	
<u>Metropus minimus</u>	Dwarf perch	N-C-U	
<u>Parodon furcatus</u>	White seaperch	N-C-S-U	
<u>Chilus toxotes</u>	Rubberlip seaperch	N-C-S-U	
<u>Chilus vacca</u>	Pile perch	N-C-U	
Clinidae			
<u>Engraulis metzi</u>	Striped kelpfish	U	
<u>Engraulis unnotatus</u>	Onespot fringehead	C	
Gobiidae			
<u>Gobiosoma flavimanus</u>	Yellowfin goby	N-C	
<u>Gobiosoma ios</u>	Arrow goby	N-C-S-U	
<u>Gobiosoma mirabilis</u>	Longjaw mudsucker	N-C-U	
<u>Gobiosoma lepidus</u>	Bay goby	C	
Stromateidae			
<u>Pomatomus simillimus</u>	Pacific pompano	N-C-S	

TABLE 4 (Continued)

Scorpaenidae			
	<u>Sebastes atrovirens</u>	Kelp rockfish	S
	<u>Sebastes auriculatus</u>	Brown rockfish	N-C-S-U
	<u>Sebastes paucispinis</u>	Bocaccio	N-C-S-U
Hexagrammidae			
	<u>Ophiodon elongatus</u>	Lingcod	N-S-U
Cottidae			
	<u>Leptocottus armatus</u>	Pacific staghorn sculpin	N-C-S-U
	<u>Scorpaenichthys marmoratus</u>	Cabezon	N-C-S-U
Bothidae			
	<u>Citharichthys sordidus</u>	Pacific sanddab	N-C-U
	<u>Citharichthys stigmaeus</u>	Speckled sanddab	N-C-U
	<u>Paralichthys californicus</u>	California halibut	N-C-U
Pleuronectidae			
	<u>Hypsopsetta guttulata</u>	Diamond turbot	N-C-U
	<u>Parophrys vetulus</u>	English sole	N-C-S-U
	<u>Platichthys stellatus</u>	Starry flounder	N-C-S-U
	<u>Pleuronichthys decurrens</u>	Curlfin sole	C
	<u>Psettichthys melanostictus</u>	Sand sole	N
Cynoglossidae			
	<u>Symphurus atricauda</u>	California tonguefish	C-U

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- 1 Central Area - C
 - 2 Unknown Sites - U
 - 3 Northern Area - N
 - 4 Southern Area - S

TABLE 5

FISHES REPORTED FROM THE NORTHERN AREA OF ELKHORN SLOUGH

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Carcharhinidae	<u>Triakis semifasciata</u>	93-183
Rhinobatidae	<u>Rhinobatos productus</u>	104-153-181
Dasyatidae	<u>Urolophus halleri</u>	153
Myliobatidae	<u>Myliobatis californica</u>	181-184
Clupeidae	<u>Alosa sapidissima</u>	181
	<u>Clupea harengus pallasii</u>	65-93-115-161-181-183-184
	<u>Dorosoma petenense</u>	153
	<u>Sardinops sagax</u>	181
Engraulidae	<u>Engraulis mordax</u>	65-93-115-161-181-183
Osmeridae	<u>Hypomesus pretiosus</u>	104-153-181-183
Synodontidae	<u>Synodus luciocephalus</u>	93
Batrachoididae	<u>Porichthys notatus</u>	93-98-104-161-181-183
Gadidae	<u>Microgadus proximus</u>	153
Ophidiidae	<u>Otophidium taylori</u>	184
Atherinidae	<u>Atherinops affinis</u>	65-93-104-115-153-161-183-184
	<u>Atherinopsis californiensis</u>	98-161-181-183
Gasterosteidae	<u>Gasterosteus aculeatus</u>	42-93-181-183

TABLE 5 (Continued)

Syngnathidae		
	<u>Syngnathus californiensis</u>	42-65-93-104-115-161-181-183-184
Percichthyidae		
	<u>Morone saxatilis</u>	181-183
Carangidae		
	<u>Trachurus symmetricus</u>	153-181-184
Sciaenidae		
	<u>Genyonemus lineatus</u>	184
	<u>Seriphus politus</u>	153
Embiotocidae		
	<u>Cymatogaster aggregata</u>	42-93-104-161-181-183-184
	<u>Embiotoca jacksoni</u>	93-161-181-183-184
	<u>Hyperprosopon argenteum</u>	93-161-181-183-184
	<u>Micrometrus minimus</u>	93-153-161-184
	<u>Phanerodon furcatus</u>	65-93-104-115-181-183-184
	<u>Rhacochilus toxotes</u>	181-184
	<u>Rhacochilus vacca</u>	184
Gobiidae		
	<u>Acanthogobius flavimanus</u>	104-153-184
	<u>Clevelandia ios</u>	42-93-161-183
	<u>Gillichthys mirabilis</u>	42-104
Stromateidae		
	<u>Peprilus simillimus</u>	153-181
Scorpaenidae		
	<u>Sebastes auriculatus</u>	104-161
	<u>Sebastes paucispinis</u>	93-153-181-183-184
Hexagrammidae		
	<u>Ophiodon elongatus</u>	161-183
Cottidae		
	<u>Leptocottus armatus</u>	42-65-93-115-161-181-184
	<u>Scorpaenichthys marmoratus</u>	65-104-115-161-181-183
Bothidae		
	<u>Citharichthys sordidus</u>	161-181
	<u>Citharichthys stigmaeus</u>	52-65-115-161-181-183-184
	<u>Paralichthys californicus</u>	93-104-161-181

TABLE 5 (Continued)

Pleuronectidae

<u>Hypsopsetta guttulata</u>	93-104-161-183
<u>Parophrys vetulus</u>	93-183-184
<u>Platichthys stellatus</u>	42-52-65-93-104-115-149-161-181-183 184
<u>Psettichthys melanostictus</u>	181-183

TABLE 6

FISHES REPORTED FROM THE CENTRAL AREA OF ELKHORN SLOUGH

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Myxinidae	<u>Eptatretus stouti</u>	104
Carcharhinidae	<u>Mustelus californicus</u>	65-104-161-183
	<u>Mustelus henlei</u>	93
	<u>Triakis semifasciata</u>	65-93-104-110-115-149-161-181-182 183-184
Rhinobatidae	<u>Rhinobatos productus</u>	93-104-181-182
Dasyatidae	<u>Urolophus halleri</u>	93-104-110-161-182
Myliobatidae	<u>Myliobatis californica</u>	93-98-110-161-181-182-183
Clupeidae	<u>Alosa sapidissima</u>	104
	<u>Clupea harengus pallasii</u>	65-115-161-181-182-183-184
	<u>Sardinops sagax</u>	93
Engraulidae	<u>Engraulis mordax</u>	65-93-110-115-181-182-184
Osmeridae	<u>Hypomesus pretiosus</u>	54-115
Ophidiidae	<u>Otophidium taylori</u>	104-161
Atherinidae	<u>Atherinops affinis</u>	65-110-115-161-183
	<u>Atherinopsis californiensis</u>	65-104-115-161-181-182-184
Percichthyidae	<u>Morone saxatilis</u>	65-115-161-182-183-184
Carangidae	<u>Trachurus symmetricus</u>	104-181
Sciaenidae	<u>Seriphus politus</u>	104-181

TABLE 6 (Continued)

<u>Embiotocidae</u>	
<u>Cymatogaster aggregata</u>	65-93-104-110-115-149-161-181-182 183-184
<u>Embiotoca jacksoni</u>	52-65-93-104-110-115-161-181-182 183-184
<u>Hyperprosopon argenteum</u>	93-104-161-181-182
<u>Micrometrus aurora</u>	181
<u>Micrometrus minimus</u>	161
<u>Phanerodon furcatus</u>	110-161-181-182
<u>Rhacochilus toxotes</u>	161
<u>Rhacochilus vacca</u>	104-161
<u>Clinidae</u>	
<u>Neoclinus uninotatus</u>	153-161
<u>Gobiidae</u>	
<u>Acanthogobius flavimanus</u>	104
<u>Clevelandia ios</u>	181
<u>Gillichthys mirabilis</u>	52-93-104-181-184
<u>Lepidogobius lepidus</u>	104-184
<u>Stromateidae</u>	
<u>Peprilus simillimus</u>	104-181
<u>Scorpaenidae</u>	
<u>Sebastes auriculatus</u>	93-153-161
<u>Sebastes paucispinis</u>	93
<u>Cottidae</u>	
<u>Leptocottus armatus</u>	65-93-104-110-115-153-161-181-182 183-184
<u>Scorpaenichthys marmoratus</u>	93-161
<u>Bothidae</u>	
<u>Citharichthys sordidus</u>	161-181
<u>Citharichthys stigmaeus</u>	65-104-115-161-181
<u>Paralichthys californicus</u>	93-104-110-181-182
<u>Pleuronectidae</u>	
<u>Hypsopsetta guttulata</u>	161
<u>Parophrys vetulus</u>	161-183
<u>Platichthys stellatus</u>	65-115-161-181-182-183-184
<u>Pleuronichthys decurrens</u>	182
<u>Cynoglossidae</u>	
<u>Symphurus atricauda</u>	65-104-115-181-183

TABLE 7

FISHES REPORTED FROM THE SOUTHERN AREA OF ELKHORN SLOUGH

FAMILY	SCIENTIFIC NAME	AUTHOR	REPORTING OCCURRENCE
Ophichthidae	<u>Ophichthus triserialis</u>	104	
Clupeidae			
	<u>Clupea harengus pallasii</u>		161
	<u>Sardinops sagax</u>		104
Engraulidae			
	<u>Engraulis mordax</u>		93-161
Osmeridae			
	<u>Hypomesus pretiosus</u>		104-161
	<u>Spirinchus starksi</u>		104
Gadidae			
	<u>Merluccius productus</u>		93
Atherinidae			
	<u>Atherinops affinis</u>		93-153
	<u>Atherinopsis californiensis</u>		93
Gasterosteidae			
	<u>Gasterosteus aculeatus</u>		93
Syngnathidae			
	<u>Syngnathus californiensis</u>		93-161
Percichthyidae			
	<u>Morone saxatilis</u>		93
Carangidae			
	<u>Trachurus symmetricus</u>		161
Sciaenidae			
	<u>Genyonemus lineatus</u>		93-104
Embiotocidae			
	<u>Cymatogaster aggregata</u>		93-161
	<u>Embiotoca jacksoni</u>		93
	<u>Phanerodon furcatus</u>		93
	<u>Rhacochilus toxotes</u>		93
Gobiidae			
	<u>Clevelandia ios</u>		93

TABLE 7 (Continued)

Stromateidae

<u>Peprilus</u> <u>simillimus</u>	104
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Scorpaenidae

<u>Sebastes</u> <u>atrovirens</u>	93
<u>Sebastes</u> <u>auriculatus</u>	93-104
<u>Sebastes</u> <u>paucispinis</u>	93-153-161

Hexagrammidae

<u>Ophiodon</u> <u>elongatus</u>	93-104
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Cottidae

<u>Leptocottus</u> <u>armatus</u>	52-93-161
<u>Scorpaenichthys</u> <u>marmoratus</u>	93

Pleuronectidae

<u>Parophrys</u> <u>vetulus</u>	93
<u>Platichthys</u> <u>stellatus</u>	93-161

TABLE 8

FISHES REPORTED FROM UNKNOWN SITES IN ELKHORN SLOUGH

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Carcharhinidae		
	<u>Mustelus californicus</u>	61-63-104
	<u>Mustelus henlei</u>	63
	<u>Triakis semifasciata</u>	61-62-63-173
Rhinobatidae		
	<u>Platyrhinoidis triseriata</u>	61-63-104
	<u>Rhinobatos productus</u>	61-62-63-104-173
Dasyatidae		
	<u>Urolophus halleri</u>	61-63-173
Myliobatidae		
	<u>Myliobatis californica</u>	26-61-62-63-104-153-173
Ophichthidae		
	<u>Ophichthus triserialis</u>	63
Clupeidae		
	<u>Clupea harengus pallasii</u>	53-100-153
	<u>Dorosoma petenense</u>	53-153
Engraulidae		
	<u>Engraulis mordax</u>	53-153
Osmeridae		
	<u>Hypomesus pretiosus</u>	53
Batrachoididae		
	<u>Porichthys notatus</u>	63-153
Atherinidae		
	<u>Atherinops affinis</u>	53-98
	<u>Atherinopsis californiensis</u>	53-63
Gasterosteidae		
	<u>Gasterosteus aculeatus</u>	153
Syngnathidae		
	<u>Syngnathus arctus</u>	68
	<u>Syngnathus californiensis</u>	53-59-98-153

TABLE 8 (Continued)

Syngnathidae		
	<u>Syngnathus griseolineatus</u>	59-153
Percichthyidae		
	<u>Morone saxatilis</u>	53-63-98-173
Carangidae		
	<u>Trachurus symmetricus</u>	53
Sciaenidae		
	<u>Genyonemus lineatus</u>	153
Embiotocidae		
	<u>Amphistichus argenteus</u>	53
	<u>Cymatogaster aggregata</u>	53-153-174
	<u>Embiotoca jacksoni</u>	53-153-174
	<u>Hyperprosopon anale</u>	153
	<u>Hyperprosopon argenteum</u>	53-153-174
	<u>Hypsurus caryi</u>	53-174
	<u>Micrometrus aurora</u>	53
	<u>Micrometrus minckleyi</u>	53-63-98-174
	<u>Phanerodon furcatus</u>	53-153
	<u>Rhacochilus toxostomus</u>	53-153
	<u>Rhacochilus vacca</u>	53-174
		Clinidae
	70	<u>Gibbonsia metzi</u>
		Gobiidae
	53-63-98-148-153	<u>Clevelandia ios</u>
<u>ilis</u>	98	<u>Gillichthys mirabilis</u>
		Scorpaenidae
<u>tus</u>	53	<u>Sebastes auriculatus</u>
<u>nis</u>	53	<u>Sebastes paucispinus</u>
		Hexagrammidae
<u>s</u>	53-153	<u>Ophiodon elongatus</u>
		Cottidae
<u>us</u>	17-53-63-98	<u>Leptocottus armatus</u>
<u>nmuratus</u>	17-53	<u>Scorpaenoides</u>
		Bothidae
<u>lidus</u>	53	<u>Citharichthys sordidus</u>
<u>maeus</u>	53	<u>Citharichthys stigmatus</u>
<u>ornicus</u>	53-63-153	<u>Paralichthys californicus</u>

TABLE 9
FISHES REPORTED FROM THE SAN LORENZO RIVER

FAMILY	SCIENTIFIC NAME	AUTHOR REPORTING OCCURRENCE
Petromyzontidae		
	<u>Entosphenus tridentatus</u>	30-57-153-169
Clupeidae		
	<u>Clupea harengus pallas</u>	57
Salmonidae		
	<u>Oncorhynchus gorbuscha</u>	154
	<u>Oncorhynchus keta</u>	154
	<u>Oncorhynchus kisutch</u>	57-153-154-156-157-169
	<u>Oncorhynchus tshawytscha</u>	154-169
	<u>Salmo gairdneri</u>	57-153-164-169
Cyprinidae		
	<u>Hesperoleucus symmetricus</u>	169
	<u>Rhinichthys osculus</u>	169
Catostomidae		
	<u>Catostomus occidentalis</u>	57-153-169
Atherinidae		
	<u>Atherinopsis californiensis</u>	57
Gasterosteidae		
	<u>Gasterosteus aculeatus</u>	169
Syngnathidae		
	<u>Syngnathus californiensis</u>	57
	<u>Syngnathus griseolineatus</u>	59
Percichthyidae		
	<u>Morone saxatilis</u>	57-153
Embiotocidae		
	<u>Amphistichus koelzi</u>	57
	<u>Cymatogaster aggregata</u>	57-153
	<u>Embiotoca jacksoni</u>	57
	<u>Phanerodon furcatus</u>	57
	<u>Rhacochilus toxotes</u>	57
Cottidae		
	<u>Cottus aleuticus</u>	153-169
	<u>Cottus asper</u>	57-153-169

TABLE 9 (Continued)

Cottidae

<u>Cottus gulosus</u>	169
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<u>Leptocottus armatus</u>	57
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Pleuronectidae

<u>Platichthys stellatus</u>	57
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TABLE 10
FISHES REPORTED FROM THE PAJARO RIVER

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Petromyzontidae		
	<u>Entosphenus tridentatus</u>	169
Clupeidae		
	<u>Clupea harengus pallasii</u>	161-181
Salmonidae		
	<u>Oncorhynchus tshawytscha</u>	169
	<u>Salmo gairdneri</u>	104-149-161-164-169
Cyprinidae		
	<u>Carassius auratus</u>	104-183
	<u>Cyprinus carpio</u>	52-55-93-153-161-183
	<u>Hesperoleucus symmetricus</u>	169
	<u>Lavinia exilicauda</u>	52-55-93-104-153-161-169-181-183
	<u>Notemigonus crysoleucas</u>	153
	<u>Orthodon microlepidotus</u>	30-149-153-169
	<u>Ptychocheilus grandis</u>	55-104-161-169-179-181-183
	<u>Rhinichthys osculus</u>	169
Catostomidae		
	<u>Catostomus occidentalis</u>	55-93-104-153-161-169-179-181-183
Ictaluridae		
	<u>Ictalurus melas</u>	179
	<u>Ictalurus nebulosus</u>	93-104-153-179
Poeciliidae		
	<u>Gambusia affinis</u>	55-93-104-181
Atherinidae		
	<u>Atherinops affinis</u>	93-149-161
	<u>Atherinopsis californiensis</u>	181
Gasterosteidae		
	<u>Gasterosteus aculeatus</u>	52-93-161-169-181-183
Syngnathidae		
	<u>Syngnathus californiensis</u>	93-104-161-181
Percichthyidae		
	<u>Morone saxatilis</u>	149-161

TABLE 10 (Continued)

Centrarchidae

<u>Archoplites interruptus</u>	30-153-169
<u>Lepomis cyanellus</u>	153
<u>Lepomis gulosus</u>	153
<u>Lepomis macrochirus</u>	55-153-179
<u>Lepomis microlophus</u>	153
<u>Micropterus salmoides</u>	55-153
<u>Pomoxis nigromaculatus</u>	153

Embiotocidae

<u>Cymatogaster aggregata</u>	149-161-181-183
<u>Hysterothorax traski</u>	153-169

Gobiidae

<u>Clevelandia ios</u>	104-181-183
<u>Eucyclogobius newberryi</u>	93-153

Scorpaenidae

<u>Sebastes paucispinis</u>	181
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Cottidae

<u>Cottus asper</u>	55-104-153-169-181
<u>Cottus beldingi</u>	183
<u>Cottus gulosus</u>	93-169
<u>Leptocottus armatus</u>	52-55-93-149-161-181-183

Bothidae

<u>Citharichthys stigmaeus</u>	183
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Pleuronectidae

<u>Parophrys vetulus</u>	104-181-183
<u>Platichthys stellatus</u>	55-93-149-161-181-183

TABLE 11

FISHES REPORTED FROM THE SALINAS RIVER

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Petromyzontidae		
	<u>Entosphenus tridentatus</u>	169-183
Clupeidae		
	<u>Clupea harengus pallasii</u>	56-67-100-153-184
	<u>Dorosoma petenense</u>	104-181
Salmonidae		
	<u>Salmo gairdneri</u>	56-169-184
Cyprinidae		
	<u>Cyprinus carpio</u>	56-67-104-181-183-184
	<u>Hesperoleucus symmetricus</u>	30-169
	<u>Lavinia exilicauda</u>	56-169-181-183-184
	<u>Orthodon microlepidotus</u>	56-67-104-153-169-181-183-184
	<u>Ptychocheilus grandis</u>	30-67-181-183-184
	<u>Rhinichthys osculus</u>	67-169
Catostomidae		
	<u>Catostomus occidentalis</u>	56-67-153-169-183-184
Cyprinodontidae		
	<u>Fundulus parvipinnis</u>	181
Peociliidae		
	<u>Gambusia affinis</u>	36-104
Gasterosteidae		
	<u>Gasterosteus aculeatus</u>	56-67-104-169-181-183-184

Percichthyidae

<u>Alburnus reticulatus</u>	67	Centrarchidae
<u>Ambloplites interruptus</u>	67	Archo
<u>Ambloplites macrochilus</u>	36	Lebon
<u>Ambloplites salmoides</u>	36	Micro
<u>Agostostomus aggregata</u>	67	Embiotocidae
<u>Ambloplites traski</u>	169-174	Gymn
<u>Ambloplites newberryi</u>	67	Hyste
		Cobitidae
		Eucyc

TABLE 11 (Continued)

Gobiidae	<u>Gillichthys mirabilis</u>	184
Cottidae	<u>Cottus aleuticus</u>	169
	<u>Cottus asper</u>	67-169
	<u>Cottus gulosus</u>	169
	<u>Leptocottus armatus</u>	67-184
Pleuronectidae	<u>Platichthys stellatus</u>	56-67-108-184

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