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

by

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Dr. Robert E. Arnal, Coordinator



ERRATA:

Moss Landing Marine Laboratories' Technical Publication 72-2: A CHECKLIST
OF THE FISHES OF THE MONTEREY BAY AREA INCLUDING EELHORN SLOUGH, THE
SAN LORENZO, PAJARO AND SALINAS RIVERS.

Delete:

- Page 14 - Alectrias electrolophus - Stone cockscomb - MB
Page 17 - Liparis cyclopus - Ribbon snailfish - MB
Page 31 - Alectrias electrolophus - 87-89
Page 35 - Liparis cyclopus - 89

Add:

- Page 31 - Cebidichthys violaceus - 89
Page 35 - Liparis florae - 89

Change:

- Page 11 - Fundulus parvipinnis, add: Probable misidentification
Page 20 - Bathophilus flemingi, change to: Bathophilus flemingi
Page 54 - Fundulus parvipinnis, add: Probable misidentification
Page 60 - Item number 67, author should be Hubbs, Clark

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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 (Baron, 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 Baldridge, 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.

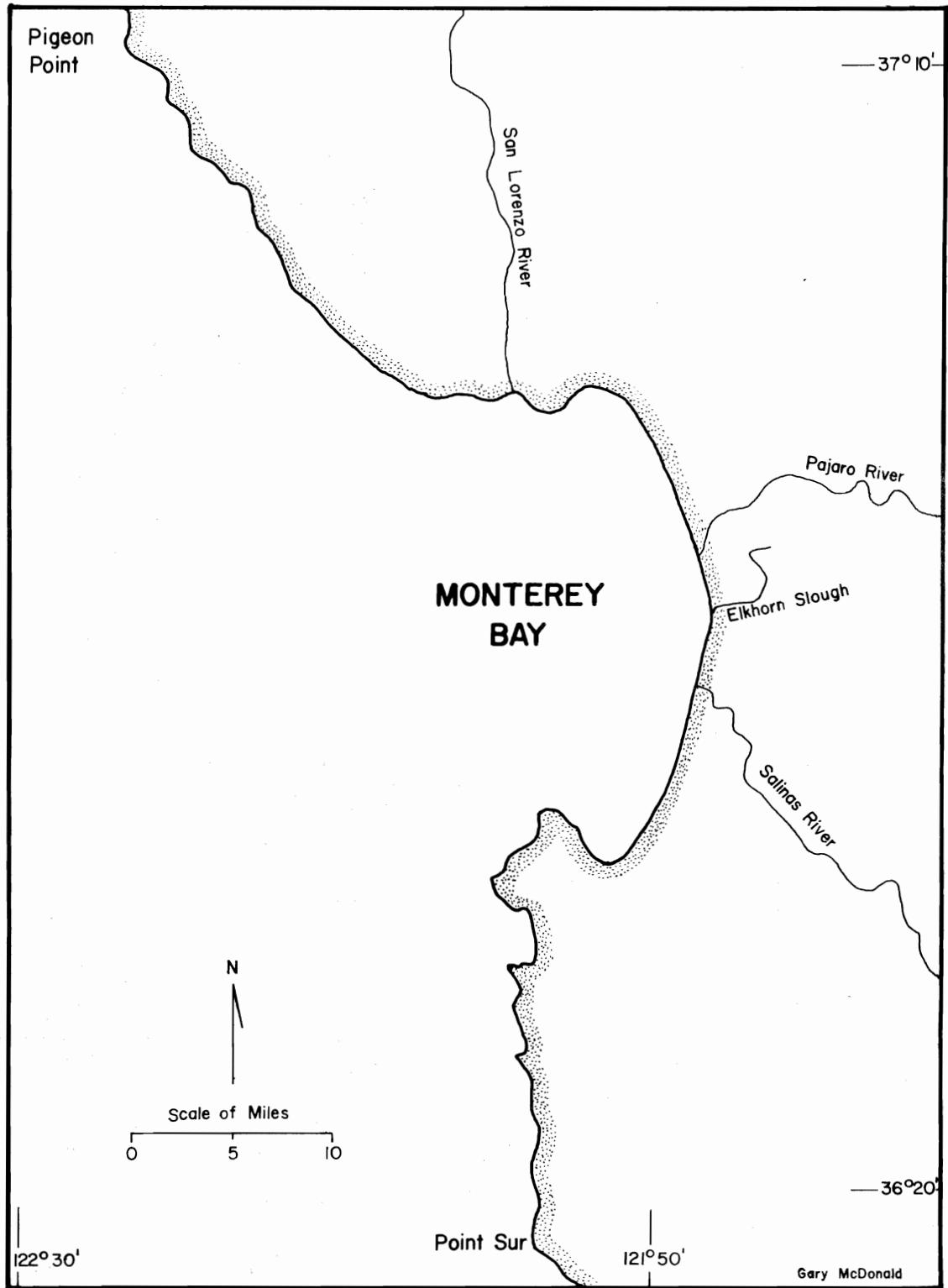


Figure 1. Map of Monterey Bay Area

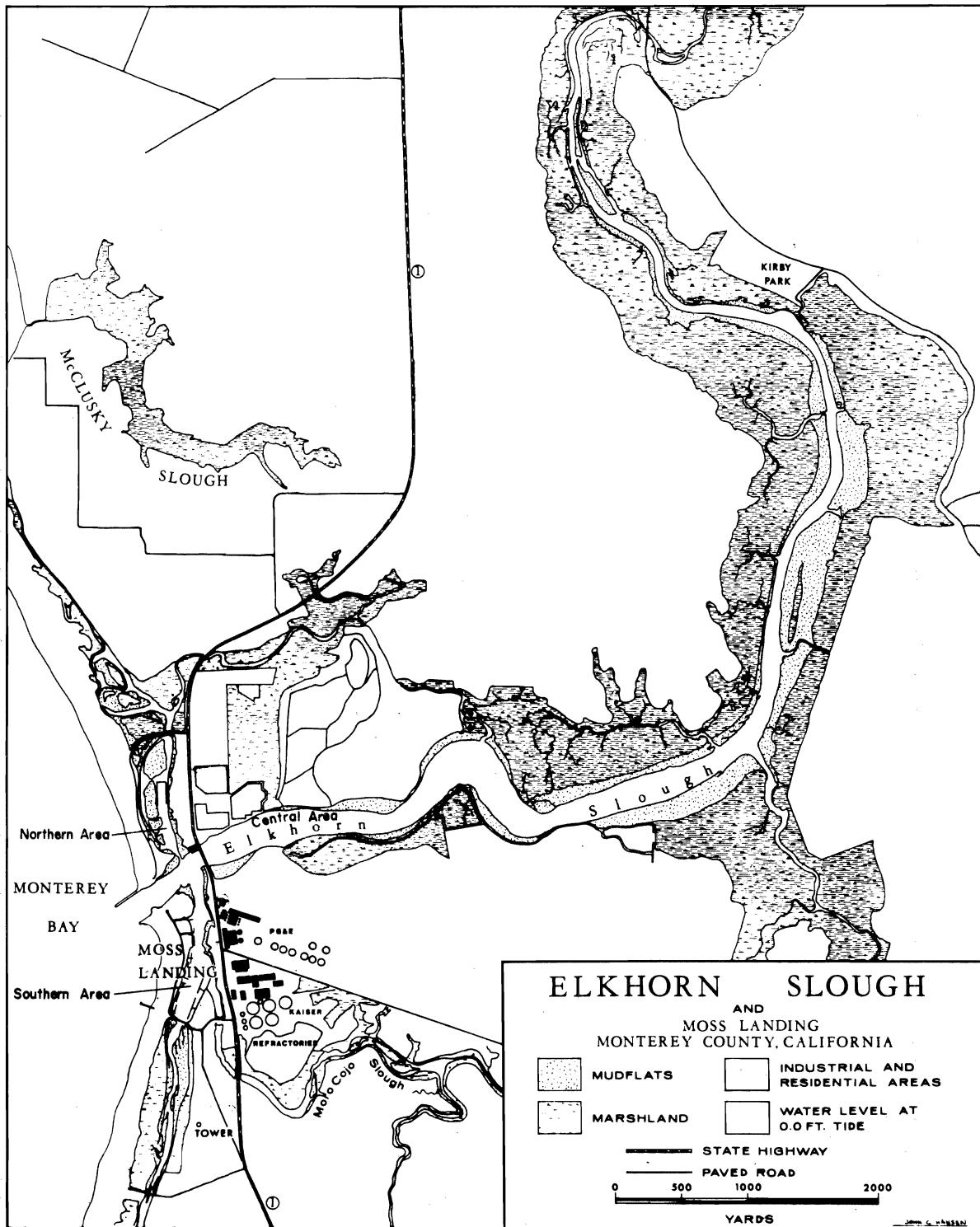


Figure 2. Map of Elkhorn Slough

TABLE 1

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

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>AREA OF OCCURRENCE</u>
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>Parmaturus xanthurus</u>	Filetail 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
Squatinaidae			
	<u>Squatina californica</u>	Pacific angel shark	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 kincaidi</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 pallasi</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 gorbuscha</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 starksii</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>Cyclothona acclinidens</u>	Benttooth bristlemouth	MB
	<u>Cyclothona pallida</u>	N C N	MB
	<u>Cyclothona pseudopallida</u>	N C N	MB
	<u>Cyclothona signata</u>	N C N	MB
Sternopychidae			
	<u>Argyropelecus hawaiiensis</u>	N C N	MB
	<u>Argyropelecus lychnus</u>	N C N	MB
	<u>Argyropelecus pacificus</u>	Pacific hatchetfish	MB
	<u>Sternopyx diaphana</u>	N C N	MB
Melanostomiatidae			
	<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 slickhead	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>Stenobranchius 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>Lyconema barbatum</u>	Bearded eelpout	MB
	<u>Melanostigma pammelas</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 maculatusfasciatus</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
Pomadasytidae			
	<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>Brachystius 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 analis</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>Hysteroxanthus traski</u>	Tule perch	PR-SR
<u>Micrometrus aurora</u>	Reef perch	MB-ES
<u>Micrometrus minimus</u>	Dwarf perch	MB-ES
<u>Phanerodon astripes</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>Zalembius 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 allenii</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 electrophorus</u>	Stone cockscomb	MB
	<u>Anoplarchus purpureescens</u>	High cockscomb	MB
	<u>Cebidichthys violaceus</u>	Monkeyface prickleback	MB
	<u>Chiropogon nugator</u>	Mosshead warbonnet	MB
	<u>Phytichthys chirurgus</u>	Ribbon prickleback	MB
	<u>Plagiogrammus hopkinsi</u>	Crisscross prickleback	MB
	<u>Plectobranchus 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>Xeropeltes 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 alalunga</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</u>	<u>maliger</u>	Quillback rockfish	MB
<u>Sebastes</u>	<u>melanops</u>	Black rockfish	MB
<u>Sebastes</u>	<u>melanostomus</u>	Blackgill rockfish	MB
<u>Sebastes</u>	<u>miniatus</u>	Vermilion rockfish	MB
<u>Sebastes</u>	<u>mystinus</u>	Blue rockfish	MB
<u>Sebastes</u>	<u>nebulosus</u>	China rockfish	MB
<u>Sebastes</u>	<u>nigrocinctus</u>	Tiger rockfish	MB
<u>Sebastes</u>	<u>ovalis</u>	Speckled rockfish	MB
<u>Sebastes</u>	<u>paucispinis</u>	Bocaccio	MB-ES-PR
<u>Sebastes</u>	<u>phillipsi</u>	Chameleon rockfish	MB
<u>Sebastes</u>	<u>pinniger</u>	Canary rockfish	MB
<u>Sebastes</u>	<u>proriger</u>	Redstripe rockfish	MB
<u>Sebastes</u>	<u>rastrelliger</u>	Grass rockfish	MB
<u>Sebastes</u>	<u>rosaceus</u>	Rosy rockfish	MB
<u>Sebastes</u>	<u>rosenblatti</u>	N C N	MB
<u>Sebastes</u>	<u>ruberrimus</u>	Yelloweye rockfish	MB
<u>Sebastes</u>	<u>rubrivinctus</u>	Flag rockfish	MB
<u>Sebastes</u>	<u>saxicola</u>	Stripetail rockfish	MB
<u>Sebastes</u>	<u>semicinctus</u>	Halfbanded rockfish	MB
<u>Sebastes</u>	<u>serranoides</u>	Olive rockfish	MB
<u>Sebastes</u>	<u>serriceps</u>	Treefish	MB
<u>Sebastes</u>	<u>umbrosus</u>	Honeycomb rockfish	MB
<u>Sebastes</u>	<u>vexillaris</u>	Whitebelly rockfish	MB
<u>Sebastes</u>	<u>wilsoni</u>	Pygmy rockfish	MB
<u>Sebastolobus</u>	<u>zacentrus</u>	Sharpchin rockfish	MB
<u>Sebastolobus</u>	<u>alascanus</u>	Shortspine thornyhead	MB
<u>Sebastolobus</u>	<u>altivelis</u>	Longspine thornyhead	MB

Anoplopomatidae

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

Hexagrammidae

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

Cottidae

<u>Artedius</u>	<u>corallinus</u>	Coralline sculpin	MB
<u>Artedius</u>	<u>creaseri</u>	Roughcheek sculpin	MB
<u>Artedius</u>	<u>harringtoni</u>	Scalyhead sculpin	MB
<u>Artedius</u>	<u>lateralis</u>	Smoothhead sculpin	MB
<u>Artedius</u>	<u>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>	Cabezon	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>	Picklebreast 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 florate</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 albescens</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 stigmatus</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
Sternopychidae	<u>Argyropelecus intermedius</u>	N C N	102
Melanostomiataidae	<u>Bathophilus flemingi</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>Anoptopterus 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>Ceratoscopelus 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 fiersafer</u>	Blackmouth eelpout	102
Macrouridae			
	<u>Nezumia liolepis</u>	N C N	7
	<u>Nezumia stelgidolepis</u>	California rattail	102
Melamphaidae			
	<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 roncador</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
Scythalinidae			
	<u>Scytalina cerdale</u>	Graveldiver	102
Gobiidae			
	<u>Ilypnus gilberti</u>	Cheekspot goby	102
	<u>Tridentiger trigonocephalus</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

FAMILY	SCIENTIFIC NAME	AUTHOR REPORTING OCCURRENCE
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>	54-58-87-89-95-111-112-114-125-153 161-183
Squatiniidae		
	<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 colliei</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 pallasi</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 gorbuscha</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 starksii</u>	43-54-87-89-90-104-153-161-184	
Argentinidae		
<u>Argentina sialis</u>	37	
Bathyagidae		
<u>Bathyagus milleri</u>	94	
<u>Bathyagus ochotensis</u>	94	
<u>Bathyagus pacificus</u>	6	
<u>Bathyagus stilbius</u>	5-28-39-43-46-94-104-161	
<u>Bathyagus wesethi</u>	12-94	
Opisthoproctidae		
<u>Macropinna microstoma</u>	20	
Gonostomatidae		
<u>Cyclothona acclinidens</u>	94	
<u>Cyclothona pallida</u>	94	
<u>Cyclothona pseudopallida</u>	94	
<u>Cyclothona signata</u>	5-6-54-94-104	
Sternopychidae		
<u>Argyropelecus hawaiiensis</u>	94	
<u>Argyropelecus lychnus</u>	94-104	
<u>Argyropelecus pacificus</u>	94	
<u>Sternopyx diaphana</u>	43-94	
Melanostomiatidae		
<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>Stenobrachius 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 parallelia</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)

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<u>Stereolepis gigas</u>	87-89-101-116-139	
Serranidae		
<u>Paralabrax clathratus</u>	47-87-89-90-101-113-153-167	
<u>Paralabrax maculatusfasciatus</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>Brachystiatus 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		
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<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>Zalembius 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>	68-87-89-122-150-160	
Polynemidae		
<u>Polydactylus approximans</u>	38-150	
Bathymasteridae		
<u>Rathbunella allenii</u>	168	
<u>Ronquilus jordani</u>	102	
Clinidae		
<u>Gibbonsia metzi</u>	43-54-70-73-92-93-104-153-161-181-183	
<u>Gibbonsia montereyensis</u>	54-70-87-89-90-104-153	
<u>Heterostichus rostratus</u>	54-70-72-87-89-90-153	
<u>Neoclinus blanchardi</u>	71-87-89-90-168	
<u>Neoclinus uninotatus</u>	63-71-87-89-90-104-153-168.	
Blenniidae		
<u>Hypsoblennius gentilis</u>	68	

TABLE 3 (Continued)

Stichaeidae		
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	<u>Anoplarchus purpurescens</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>Plectobranchus 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>Xererpes 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>Peprius simillimus</u>	87-89-90-107-109-153-161
	<u>Tetragonurus cuvieri</u>	150

TABLE 3 (Continued)

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

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<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 serriceps</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>Sebastolobus alascanus</u>	43-44-46-58-104-113-128-161
<u>Sebastolobus 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>Eriolepis 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>Pleurogrammus monopterygius</u>	19
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<u>Zaniolepis latipinnis</u>	43-46-54-58-99-104-114-153-161-184
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<u>Artedius corallinus</u>	11-17
<u>Artedius creaseri</u>	17
<u>Artedius harringtoni</u>	17-54-104-153
<u>Artedius lateralis</u>	17-22-54-87-89-104-153-161-183
<u>Artedius notospilotus</u>	17-89-153
<u>Blepsias cirrhosus</u>	54
<u>Chitonotus pugetensis</u>	17-43-46-104-153-161-184
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Cottidae

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<u>Clinocottus globiceps</u>	17-54-87-89-93-104-153
<u>Clinocottus recalvus</u>	17-54-73-92-93-104-153-181-183
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<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 quadriseriatus</u>	17-43-46-104-161-168
<u>Icelinus tenuis</u>	17-43-46-54-153
<u>Jordania zonope</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>Orthopias 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

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

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<u>Careproctus melanurus</u>	43
<u>Liparis cyclopus</u>	89
<u>Liparis florate</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
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<u>Rhinoliparis attenuatus</u>	46

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<u>Citharichthys sordidus</u>	3-43-44-54-58-72-87-89-90-95-101-104 109-110-111-112-114-153-161-183 184
<u>Citharichthys stigmaeus</u>	1-43-54-95-106-109-110-153-161-183 184
<u>Citharichthys xanthostigma</u>	147
<u>Hippoglossina stomata</u>	145
<u>Paralichthys californicus</u>	43-54-87-89-90-95-101-107-109-114 125-133-161-184-185
<u>Xystreurus liolepis</u>	43-46-142

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<u>Embassichthys bathybius</u>	44
<u>Eopsetta jordani</u>	43-44-54-58-87-89-90-95-101-104-107 114-125-153-161-181-183-184
<u>Glyptocephalus zachirus</u>	43-44-54-58-87-89-90-99-104-107-114 153-161-184
<u>Hippoglossus stenolepis</u>	124-125-172
<u>Hypsopsetta guttulata</u>	89-109-125
<u>Isopsetta isolepis</u>	89-90-99
<u>Lepidopsetta bilineata</u>	46-58-87-89-90-101-104-111-112-114 161-183-184
<u>Lyopsetta exilis</u>	43-44-46-58-72-87-90-104-110-114-161
<u>Microstomus pacificus</u>	39-43-44-54-58-87-89-90-95-104-107 114-153-161
<u>Parophrys vetulus</u>	1-22-43-44-46-54-58-87-89-90-95-99 101-104-107-109-114-125-153-161 183-184

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>Sympodus atricauda</u>	99-104-109-130-161-183-184	
Balistidae		
<u>Balistes polylepis</u>	19-104-150	
Molidae		
<u>Mola mola</u>	48-87-153-161	



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 triserialis</u>	Pacific snake eel	S ⁴ -U
Clupeidae	<u>Alosa sapidissima</u>	American shad	N-C
	<u>Clupea harengus pallasi</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 starksii</u>	Night smelt	S
Synodontidae	<u>Synodus lucioceps</u>	California lizardfish	N
Batrachoididae	<u>Porichthys notatus</u>	Plainfin midshipman	N-U
Gadidae	<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>Cymatogaster aggregata</u>	Shiner perch	N-C-S-U
	<u>Embiotoca jacksoni</u>	Black perch	N-C-S-U
	<u>Hyperprosopon analis</u>	Spotfin surfperch	U
	<u>Hyperprosopon argenteum</u>	Walleye surfperch	N-C-U
	<u>Hypsurus caryi</u>	Rainbow seaperch	U
	<u>Micrometrus aurora</u>	Reef perch	C-U
	<u>Micrometrus minimus</u>	Dwarf perch	N-C-U
	<u>Phanerodon furcatus</u>	White seaperch	N-C-S-U
	<u>Rhacochilus toxotes</u>	Rubberlip seaperch	N-C-S-U
	<u>Rhacochilus vacca</u>	Pile perch	N-C-U
Clinidae			
	<u>Gibbonsia metzi</u>	Striped kelpfish	U
	<u>Neoclinus uninotatus</u>	Onespot fringehead	C
Gobiidae			
	<u>Acanthogobius flavimanus</u>	Yellowfin goby	N-C
	<u>Clevelandia ios</u>	Arrow goby	N-C-S-U
	<u>Gillichthys mirabilis</u>	Longjaw mudsucker	N-C-U
	<u>Lepidogobius lepidus</u>	Bay goby	C
Stromateidae			
	<u>Peprilus 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>Sympodus atricauda</u>	California tonguefish	C-U

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 pallasi</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 lucioceps</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>Gilllichthys 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 pallasi</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>Seriphis politus</u>	104-181

TABLE 6 (Continued)

Embiotocidae		
<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	
Clinidae		
<u>Neoclinus uninotatus</u>	153-161	
Gobiidae		
<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	
Stromateidae		
<u>Peprilus simillimus</u>	104-181	
Scorpaenidae		
<u>Sebastes auriculatus</u>	93-153-161	
<u>Sebastes paucispinis</u>	93	
Cottidae		
<u>Leptocottus armatus</u>	65-93-104-110-115-153-161-181-182 183-184	
<u>Scorpaenichthys marmoratus</u>	93-161	
Bothidae		
<u>Citharichthys sordidus</u>	161-181	
<u>Citharichthys stigmatus</u>	65-104-115-161-181	
<u>Paralichthys californicus</u>	93-104-110-181-182	
Pleuronectidae		
<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	
Cynoglossidae		
<u>Syphurus atricauda</u>	65-104-115-181-183	

TABLE 7

FISHES REPORTED FROM THE SOUTHERN AREA OF ELKHORN SLOUGH

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Ophichthidae		
	<u>Ophichthus triserialis</u>	104
Clupeidae		
	<u>Clupea harengus pallasi</u>	161
	<u>Sardinops sagax</u>	104
Engraulidae		
	<u>Engraulis mordax</u>	93-161
Osmeridae		
	<u>Hypomesus pretiosus</u>	104-161
	<u>Spirinchus starksii</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 simillimus</u>		104
Scorpaenidae		
<u>Sebastes atrovirens</u>	93	
<u>Sebastes auriculatus</u>	93-104	
<u>Sebastes paucispinis</u>	93-153-161	
Hexagrammidae		
<u>Ophiodon elongatus</u>	93-104	
Cottidae		
<u>Leptocottus armatus</u>	52-93-153	
<u>Scorpaenichthys marmoratus</u>	93	
Pleuronectidae		
<u>Parophrys vetulus</u>	93	
<u>Platichthys stellatus</u>	93-161	

TABLE 8
FISHES REPORTED FROM UNKNOWN SITES IN ELKHORN SLOUGH

FAMILY	SCIENTIFIC NAME	AUTHOR REPORTING OCCURRENCE
Carcharhinidae		
	<u>Mustelus californicus</u>	61-63-104
	<u>Mustelus henlei</u>	63
	<u>Triakis semifasciata</u>	61-62-63-173
Rhinobatidae		
	<u>Platyrrhinoidis 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 pallasi</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 analis</u>	153
	<u>Hyperprosopon argenteum</u>	53-153-174
	<u>Hypsurus caryi</u>	53-174
	<u>Micrometrus aurora</u>	53
	<u>Micrometrus minimus</u>	53-68-104-174
	<u>Phanerodon furcatus</u>	53-153
	<u>Rhacochilus toxotes</u>	53-153
	<u>Rhacochilus vacca</u>	53-174
Clinidae		
	<u>Gibbonsia metzi</u>	70
Gobiidae		
	<u>Clevelandia ios</u>	53-63-98-148-153
	<u>Gillichthys mirabilis</u>	98
Scorpaenidae		
	<u>Sebastodes auriculatus</u>	53
	<u>Sebastodes paucispinis</u>	53
Hexagrammidae		
	<u>Ophiodon elongatus</u>	53-153
Cottidae		
	<u>Leptocottus armatus</u>	17-53-63-98
	<u>Scorpaenichthys marmoratus</u>	17-53
Bothidae		
	<u>Citharichthys sordidus</u>	53
	<u>Citharichthys stigmaeus</u>	53
	<u>Paralichthys californicus</u>	53-63-153

TABLE 8 (Continued)

Pleuronectidae

<u>Hypsopsetta guttulata</u>	68
<u>Parophrys vetulus</u>	53-153
<u>Platichthys stellatus</u>	53-63-98-108-153

Cynoglossidae

<u>Sympodus atricauda</u>	153
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TABLE 9

FISHES REPORTED FROM THE SAN LORENZO RIVER

<u>FAMILY</u>	<u>SCIENTIFIC NAME</u>	<u>AUTHOR REPORTING OCCURRENCE</u>
Petromyzontidae		
	<u>Entosphenus tridentatus</u>	30-57-153-169
Clupeidae		
	<u>Clupea harengus pallasi</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
<u>Leptocottus armatus</u>	57

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 pallasi</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>Hystericarpus 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 pallasi</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
Poeciliidae		
	<u>Gambusia affinis</u>	36-104
Gasterosteidae		
	<u>Gasterosteus aculeatus</u>	56-67-104-169-181-183-184
Percichthyidae		
	<u>Morone saxatilis</u>	184
Centrarchidae		
	<u>Archoplites interruptus</u>	67
	<u>Lepomis macrochirus</u>	36
	<u>Micropterus salmoides</u>	36
Embiotocidae		
	<u>Cymatogaster aggregata</u>	67
	<u>Hystericarpus traski</u>	169-174
Gobiidae		
	<u>Eucyclogobius newberryi</u>	67

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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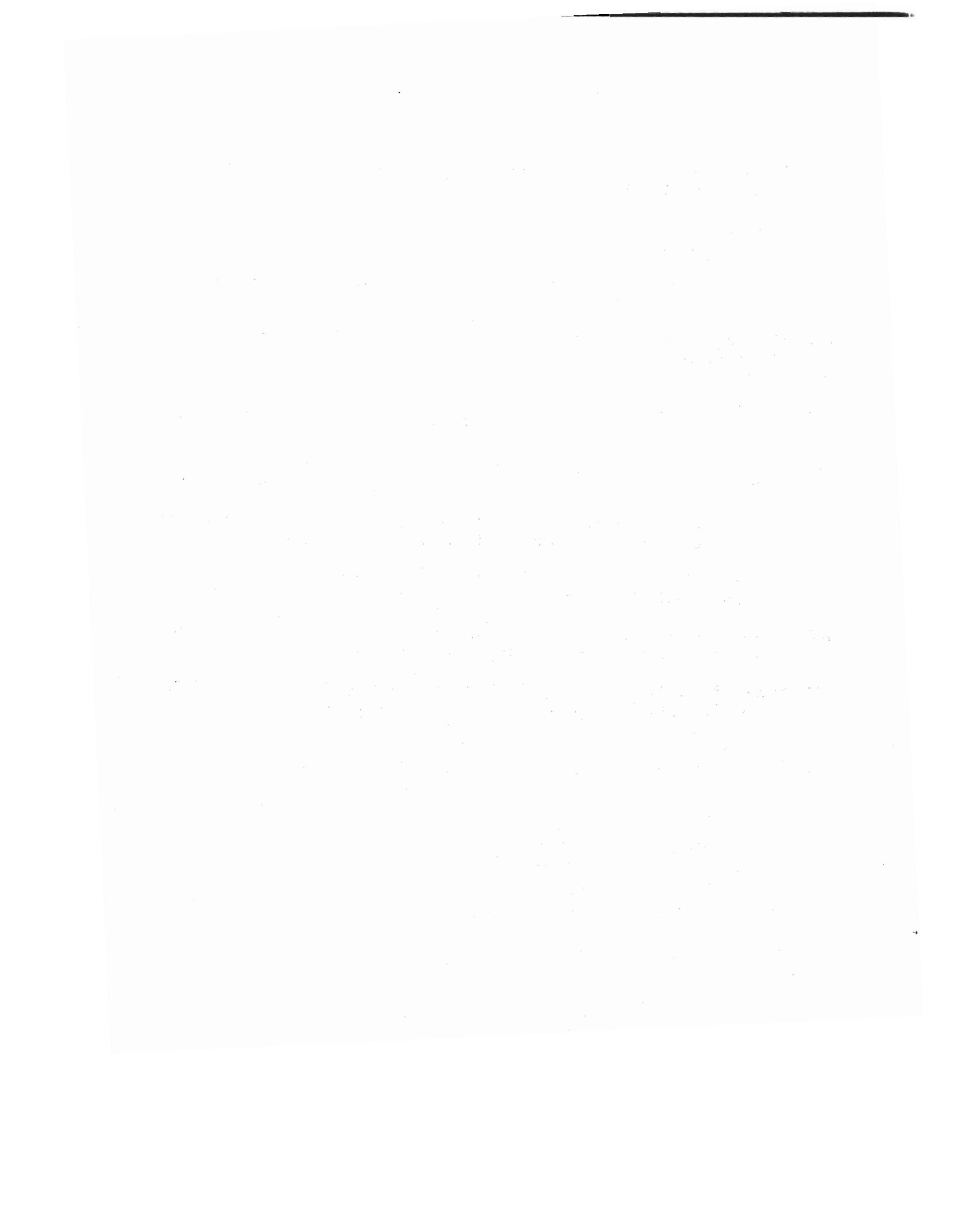
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