

REPORT ON FISHES FROM ALLAN HANCOCK
EXPEDITIONS IN THE CALIFORNIA
ACADEMY OF SCIENCES

(PLATES 1-5)

ALVIN SEALE

Superintendent of Steinhart Aquarium

Most of this collection of fishes was obtained by the Allan Hancock Pacific Expeditions of the *Velero III* off the coast of Mexico, Central America, and the Galapagos Islands in 1931-32. Additional specimens were sent to the author from the 1934 expedition.

These collections were made by members of the scientific staff and crew of the *Velero III*. Numbers of young fishes and larval crustaceans were obtained by the use of the submerged electric light. Traps, nets, and derris powders were also used with success.

The following species are described as new in this paper:

<i>Uropterygius galapagensis</i> , family Muraenidae . . .	Page 7
<i>Aseraggodes herrei</i> , family Soleidae	Page 13
<i>Callionymus garthi</i> , family Callionymidae	Page 37
<i>Ophioblennius lanieri</i> , family Blenniidae	Page 41
<i>Stathmonotus culebrai</i> , family Chaenopsidae	Page 43

Eptatretidae Hagfish

**Polistotrema stoutii* (Lockington)

One from Prisoners Harbor, Santa Cruz Island, California, April 24, 1934. Length 490 mm. Caught on a fishhook.

Carchariidae Gray Sharks

Scoliodon longurio (Jordan and Gilbert)

One from Tangola-Tangola, Mexico, December 15, 1931. Length 490 mm. This species has a sharp-pointed snout. Lips with a distinct groove. Many flat serrated teeth placed obliquely in the jaws.

Galeorhinus zyopterus Jordan and Gilbert

* For the most part the author has followed Jordan, Evermann and Clark's *Check List of Fishes and Fishlike Vertebrates of North and Middle America*, Doc. 1055, Rept. Comm. Fish., 1928.

Numerous large specimens of this species were examined at a shark fishery on Cerros Island, where they were secured for their oil and fins. They are known locally as the "Soup-fin Shark."

Sphyrnidae Hammer-headed Sharks

Sphyrna zygaena (Linnaeus)

Perhaps the most abundant species of shark in the Galapagos Islands. Specimens were taken measuring up to 12 feet in length.

Rhinobatidae Guitarfishes

Rhinobatos leucorhynchus (Günther)

One from Tenacatita, Mexico, December 10, 1931. Length 140 mm. A row of distinct spines down the back, a pair of spines on each shoulder, and spines on the orbital ridge. Color in alcohol grayish without distinct markings.

Torpedinidae Torpedoes

Discopyge ommata Jordan and Gilbert

One from Port Culebra, Costa Rica, February 25, 1932. Length 165 mm. Back mottled with ocellated spots and with a black ring in the center of the disk.

One from Port Culebra, Costa Rica, February 25, 1934. Length 65 mm. This specimen is mottled and marbled with brown over the back with a distinct round white spot surrounded by rings of black and white on the center of the back.

Elopidae Tenpounders

Elops affinis Regan

One from Tenacatita, Mexico, December 10, 1931. Length 305 mm. Silvery with the dorsal, anal, and caudal washed with yellowish color.

Albulidae Ladyfishes

Albula vulpes (Linnaeus)

One from Acapulco, Mexico, December 15, 1931. Length 64 mm. Grayish, with about 12 dark bands over the back.

Clupeidae Herrings and Sardines*Clupea pallasii* Cuvier and Valenciennes

Two from Tenacatita, Mexico, March 4, 1934. Length 80-90 mm. Dorsal with 20 rays, anal with 17, scutes 35, depth 3.5, head 3.5 in standard length, eye 3 in head, being slightly more than length of snout, ventrals inserted under 7th dorsal ray. Color blue above, silvery below.

Sardinia caerulea (Girard)

Two from Tagus Cove, Albemarle Island, Galapagos, January 12, 1934. Length 75-76 mm. Grooves on opercles distinct.

Lile stolifera (Jordan and Gilbert)

Three from Corinto, Nicaragua, February 8, 1932. Length 65-100 mm. Fifteen from Tenacatita, Mexico, December 10, 1931. Length 65-75 mm. Two from Port Utria, Colombia, February 14, 1934. Length 39-42 mm. Silvery on sides with a more or less distinct darker stripe from head to tail. Tip of fins uncolored.

Harengula thrissina (Jordan and Gilbert)

Four from Tangola-Tangola, Mexico, December 6, 1931. Length 52-104 mm. Three from Tenacatita, Mexico, December 10, 1931. Length 53-90 mm. Dorsal 16, anal 16, scales 37, scutes 16 x 14.

Opisthonema libertate (Günther)

Five from Post Office Bay, Charles Island, Galapagos, January 2, 1931. Length 180-250 mm. Great schools were seen at this place.

Ilisha furthii (Steindachner)

One from Guayas River, Guayaquil, Ecuador, February 6, 1939. Length 196 mm. Dorsal with 17 rays, anal with 45. Tips of all fins black, body uniform silvery.

Opisthopecterus macrops (Günther)

Three from Sihuatanejo, Mexico, December 11, 1931. Length 90-102 mm. No ventral fins, anal with about 60 rays. Color silvery on sides, darker on back.

Pliosteostoma lutipinnis (Jordan and Gilbert)

Four from Mazatlan, Mexico, December 8, 1931. Length 55-65 mm.

Dussumieriidae Round Herrings*Stolephorus delicatulus* (Bennett)

Two from Wreck Bay, Chatham Island, Galapagos, January 21, 1934. Length 83-90 mm. Belly rounded, no scutes, origin of ventrals

entirely posterior of dorsal, maxillary extending to anterior margin of orbit, dorsal 11, anal 10. Caudal forked. Origin of the dorsal nearer to tip of snout than to caudal.

Engraulidae Anchovies

Anchoviella miarchus (Jordan and Gilbert)

Twenty-two from Corinto, Nicaragua, February, 1932. Length to 46 mm. Dorsal 14, anal 22 rays. Depth 5.6 in length from tip of snout to end of caudal vertebra. Head 3.5. Young, without stripe.

Anchoviella exigua (Jordan and Gilbert)

Four from Tangola-Tangola Bay, Mexico, December 16, 1931. Length 65-90 mm. A distinct silvery stripe from head to caudal. Maxillary not extending to margin of opercle. Two from La Plata Island, Ecuador, February 10, 1934. Length 82-88 mm.

Anchoviella delicatissima (Girard)

One from Corinto, Nicaragua, February 8, 1932. Length 80 mm. Dorsal 23, anal 13 rays, eye 3 in length of head, silvery stripe on side distinct.

Anchoviella curta (Jordan and Gilbert)

Twenty-four from Tenacatita, Mexico, December 10, 1931. Length 60-95 mm. Fourteen from Sihuatanejo Bay, Mexico, December 11, 1931. Length 54-85 mm. Six from Mazatlan, Mexico, December 8, 1931. Length 55-65 mm. One from La Plata Island, Ecuador, February 10, 1934. Length 110 mm.

Cetengraulis mysticetus (Günther)

Six from Panama Market, December 24, 1931. Length 150-180 mm. The head is 2.8 into the standard length, depth 3.2. Dorsal 14, anal 23 rays. Color blue above, silvery on sides and below.

Muraenidae Morays

Muraena lentiginosa Jenyns

Three from South Seymour Island, Galapagos, January 17, 1932. Length 141-450 mm.

Muraena pardalis Schlegel

One from Espiritu Santo Island, Mexico, February 18, 1932. Length 227 mm. Ocellated white spots over the body, these crowded on the

throat. Gill openings and angle of mouth black. Inside of mouth spotted. Two series of teeth in upper jaw. This record seems to extend the range of this species east from Tahiti.

Rabula panamensis (Steindachner)

Two from Bahia Honda, Panama, February 21, 1934. Length 108-162 mm. One from Black Beach Anchorage, Charles Island, Galapagos, January 14, 1934. Length 85 mm. Uniform brown in color with the pores on lower jaw white. Origin of dorsal above gill openings. Teeth strong and sharp.

Gymnothorax funebris Ranzani

One from Isabel Island, Mexico, February 13, 1932. Length 164 mm. One from Espiritu Santo Island, San Gabriel Bay, Mexico, February 18, 1932. Length 240 mm. Color uniform dark brown.

Gymnothorax dovii (Günther)

One from Balboa, Panama, December 24, 1931. Length 584 mm. Color dark brown spotted and mottled with yellow, throat and belly pale, a large black spot at gill opening.

Uropterygius galapagensis, new species

Plate 1, Fig. 1

Holotype.—Calif. Acad. Sci. No. 5744.*Type locality*.—From Post Office Bay, Charles Island, Galapagos, January 21, 1934. Length 75 mm.

No fins, the tail ending in a sharp point. No scales. Teeth pointed and directed backward in 2 rows of unequal length. Vomerine teeth quite small. Gape of mouth less than $\frac{1}{2}$ length of head. Eye but slightly less than snout, and located over middle of gape. Anterior nostril in tube. Color in alcohol, brown on the back down on the sides to middle line, under parts yellow. About 50 narrow yellow lines over back down to middle of sides. A wide yellowish white band over the middle portion of head. This species is closely related to *U. necturus* of Jordan and Gilbert with which this specimen was compared.

Ariidae Sea Catfish

Bagre pinnimaculatus (Steindachner)

One from Panama Market, December 24, 1931. Length 340 mm. Maxillary barbules extending to posterior of anal. Dorsal filament reaching to fork of caudal, the pectoral filament extending to middle of caudal peduncle.

Synodontidae Lizardfishes

Synodus jenkinsi Jordan and Bollman

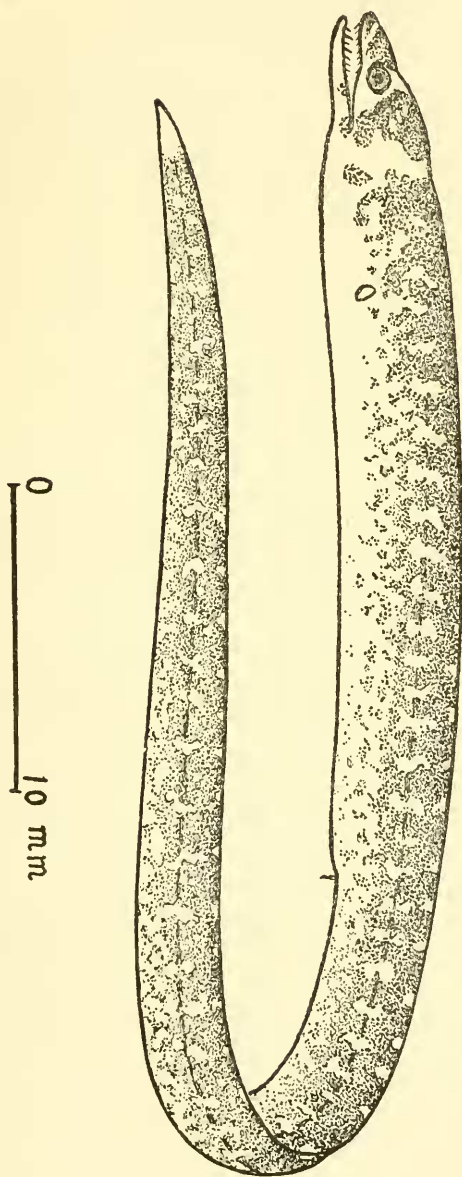
Two from Tenacatita, Mexico, December 9, 1931. Length 172-260 mm. Two from James Bay, James Island, Galapagos, January 23, 1934. Length 50-51 mm. Dorsal 11, anal 13, scales 62. The origin of the dorsal is midway between the origin of the adipose fin and the anterior margin of pupil.

Synodus scituliceps Jordan and Gilbert

Two from Port Culebra, Costa Rica, February 24, 1934. Length 55-165 mm. Grayish green above, white below. Anal of 13 rays.

Synodus evermanni Jordan and Bollman

One from Espiritu Santo Island, Mexico, February 18, 1932. Length 129 mm. Dorsal 13, anal 10. About 13 dark blotches along the sides.



UROPTERYGIUS GALAPAGENSIS

Belonidae Needlefishes*Tylosurus fodiator* Jordan and Gilbert

One from Bahia Honda, Panama, December 22, 1931. Length 344 mm. Two from Tangola-Tangola Bay, Mexico, December 16, 1931. Length 356-405 mm. Two from Corinto, Nicaragua, February 8, 1932. Length 505-545 mm. This species was found to be very common in the above localities.

Ablennes pacificus Walford

One from Charles Island, Galapagos, January 3, 1932. Length 670 mm.

Hemiramphidae Halfbeaks*Euleptorhamphus longirostris* (Cuvier)

Two from South Seymour Island, Galapagos, January 17, 1932. Length 468-475 mm. Length of head including lower jaw 2.6 into standard length. Origin of ventral fins midway between axil of pectorals and end of caudal vertebra.

Hyporhamphus unifasciatus (Ranzani)

Three from Gorgona Island, Colombia, February 12, 1934. Length 100-113 mm. Two from Port Utria, Colombia, February 15, 1934. Length 90-102 mm. Dorsal 16, anal 15 rays. Origin of anal on a line with the origin of the dorsal. Origin of ventrals midway between base of caudal and middle of eye. Length of lower jaw beyond upper $\frac{1}{4}$ greater than head. Interorbital space less than eye.

Hyporhamphus roberti (Cuvier and Valenciennes)

One from Sihuatanejo, Mexico, December 12, 1931. Length 342 mm. Eighteen from Mazatlan, Mexico, December 8, 1931. Length 53-250 mm. Five from Post Office Bay, Charles Island, Galapagos, January 3, 1932. Length to 250 mm. Two from James Bay, James Island, Galapagos, January 10, 1931. Length 77-102 mm. Four from South Seymour Island, Galapagos, January 14, 1932. Length 100-115 mm. One from Corinto, Nicaragua, February 9, 1932. Length 190 mm. One from Tagus Cove, Albemarle Island, Galapagos, January 12, 1934. Length 62 mm. Dorsal 16, anal 16 rays. Origin of the ventrals midway between base of caudal and the posterior margin of eye. A blue silvery stripe from eye to caudal. Head with lower jaw 2.8 in length.

Exocoetidae Flyingfishes*Fodiator acutus* (Cuvier and Valenciennes)

Three from Sihuatanejo Bay, Mexico, December 11, 1931. Length 139-1533 mm. One from Acapulco, Mexico, December 15, 1931. Length 140 mm. Five from Mazatlan, December 7, 1931. Length 134-140 mm. Two from Panama Bay, December 23, 1931. Length 146-165 mm. Two from Bahia Honda, Panama, February 21, 1934. Length 53-64 mm. These have a long slender snout with an acute lower jaw. Dorsal fin of 9 very high rays; when prone these extend to the caudal. Origin of the anal below the 5th dorsal ray. Origin of the ventrals midway between base of caudal and posterior margin of eye. Color bluish above, silvery on sides and below. Dorsal purplish, the lower rays white. Caudal with lower lobe prolonged and marked by three purple bars.

Exocoetus volitans Linnaeus

Two from Panama Bay, December 23, 1931. Length 153-227 mm. Origin of ventrals midway between base of caudal and the posterior hard margin of the opercle. Pectorals blue with an oblique white band, the margin white. Axil and upper portion of ventral rays grayish.

Cypselurus bahiensis (Ranzani)

One from Chatham Island, Galapagos, December 31, 1931. Length 380 mm. Origin of ventrals midway between end of caudal vertebra and the middle of opercle. Dorsal with a large black spot on the posterior of the fin. Pectorals and ventrals uncolored.

Cypselurus callopterus (Günther)

One from Chatham Island, Galapagos, January 2, 1932. Length 315 mm. Two from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 305-322 mm. Pectorals covered with round dark spots, ventrals with dark centers and with spots.

Cypselurus katoptron (Bleeker)

(*E. altipinnis* of author's is probably another species)

One from South Seymour Island, Galapagos, January 22, 1934. Length 30 mm. Dorsal 12, anal 10 rays. Origin of the anal on a line with base of 5th dorsal ray. Origin of ventrals midway between end of caudal vertebra and posterior margin of eye. Pectorals extending slightly past the origin of dorsal. Ventrals extending posterior to axil of anal. No barbules. Snout short, being equal to pupil of eye. Pectoral dark

blue with white area in center. Ventrals blue. Caudal whitish without markings. Body whitish with 4 more or less distinct wide blue bands (probably the immature markings).

Bregmacerotidae

Bregmaceros bathymaster Jordan and Bollman

Twenty from White Friars Islands, Mexico, March 2, 1934. Length 38-58 mm. A single long dorsal spine on the head. Anterior portion of the dorsal and anal fin elevated. Ventral with 38 elongated rays, which extend to the middle of anal or beyond. Caudal forked. Teeth in jaws, vomer, and palatines. Color silvery with grayish wash on back. Taken by dredge in 90-140 fathoms.

Bothidae Flounders, Flatfishes

Platophrys constellatus Jordan

Three from Tangola-Tangola Bay, Mexico, February 28, 1934. Length 40-48 mm. Eyes well separated; mouth small; color grayish with dark specks and dots over body.

Platophrys leopardinus (Günther)

Nine from Petatlan Bay, Mexico, December 13, 1931. Length 20-75 mm. One from La Libertad, Ecuador, February 9, 1934. Length 42 mm. Two from Tenacatita, Mexico, March 4, 1934. Length 29-40 mm. Interorbital space very wide. Lateral line with a short deep arch. Body with bluish spots and rings.

Citharichthys sordidus (Girard)

One from Tenacatita, Mexico, December 10, 1931. Length 203 mm. Five from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 29-66 mm. Eyes close together with a sharp ridge between. Lateral line straight. Gillrakers sharp pointed, 18 on lower limb. Color grayish with dark spots.

Citharichthys stigmaeus Jordan and Gilbert

Eight from Charles Island, Galapagos, January 27, 1934. Length 30-70 mm. These were taken in the dredge at 355 meters. They are light in color with darker or bluish specks.

Citharichthys gilberti Jordan and Evermann

One from Mazatlan, Mexico, December 7, 1931. Length 139 mm. One from Jicarita Island, Panama, February 1, 1931. Length 85 mm. Lateral line straight. Interorbital narrow. Dorsal of 91 rays.

Citharichthys xanthostigmus Gilbert

Four from Tenacatita, Mexico, December 10, 1931. Length 87 mm. Color uniform light brownish.

Etopus crossotus Jordan and Gilbert

Three from Tenacatita, Mexico, December 9, 1931. Length 122-134 mm. Color brownish with darker spots and markings. Cleft of mouth less than diameter of the orbit.

Azevia panamensis (Steindachner)

One from Bahia Honda, Panama, December 21, 1931. Length 107 mm. One from Corinto, Nicaragua, February 9, 1932. Length 209 mm. Maxillary extending to below posterior margin of eye. Color dark gray with black spots on dorsal and anal. Ten young specimens, length 20-55 mm., were taken at Port Culebra, Costa Rica, February 24, 1934.

Syacium ovale (Günther)

Fifteen from Tangola-Tangola Bay, Mexico, February 28, 1934. Length 17-56 mm. Two from Tenacatita, Mexico, March 4, 1934. Length 36-43 mm. Lateral line straight. Gillrakers thick and blunt, 8-9 on lower limb. Color whitish powdered with darker specks.

Paralichthyidae Bastard Halibuts*Paralichthys woolmani* Jordan and Williams

One from Jicarita Island, Panama, February 20, 1934. Length 95 mm. Eyes separated by a narrow ridge. Color brownish with dark spots and blotches.

Soleidae Soles

Plate 2, Fig. 2

Aseraggodes herrei, new species*Holotype*.—Calif. Acad. Sci. No. 5747.*Type locality*.—One specimen from Post Office Bay, Charles Island, Galapagos, January 2, 1932.

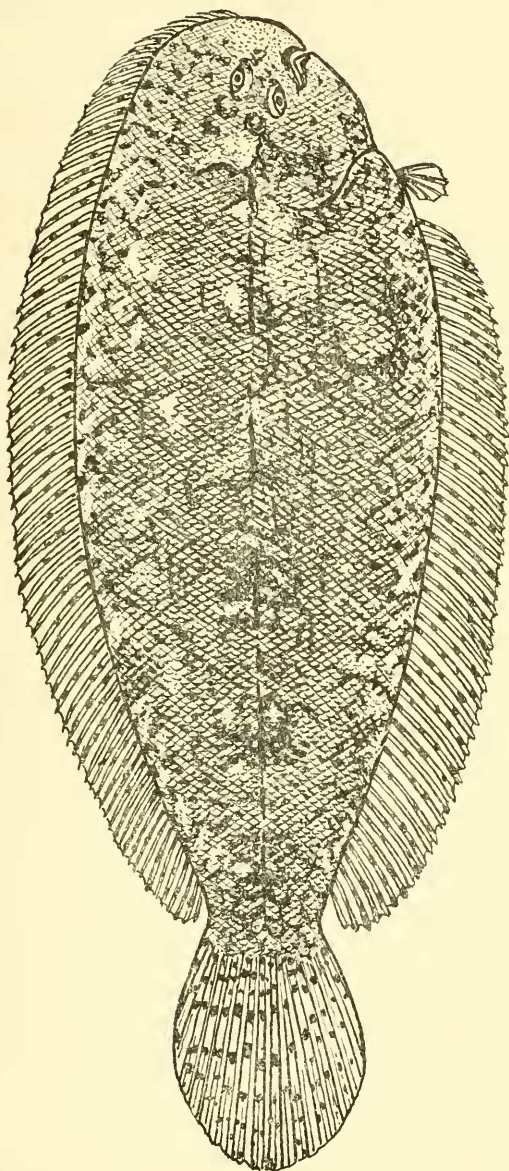
Body oblong, dextral. Head 4.3, depth 2.4. Scales ctenoid. A straight lateral line on each side, this more distinct on colored side. Mouth contorted, with minute teeth on the rami of jaw only. No pectoral fin. Dorsal and anal separate from the caudal, the dorsal beginning on snout in front of upper eye. Ventrals symmetrical and free from the anal. Dorsal of 77 rays, anal of 53. Ventrals 5. Gill membranes united, free from isthmus. Eye 4.5 in head, the upper eye in advance of the lower by a distance equal to $\frac{1}{2}$ its length; eyes are separated by a scaled interorbital space equal to the diameter of the orbit. Caudal peduncle short and deep, its depth equal to distance from posterior margin of lower eye to posterior margin of opercle. Caudal rounded, its longest median ray $\frac{1}{4}$ longer than the head. Gape of mouth on right side extending to a line with the posterior margin of the upper eye. Ventrals, anal, and caudal of branched rays; the rays of the pectoral simple. Color in alcohol grayish green, everywhere, including fins, marked with specks and lines and blotches of black. There are about 3 large irregular blotches along the middle line of the colored side and in the center of these a black longitudinal line in each. There are also numerous small reticulations. The caudal is banded with black dots, the dorsal and anal have dark lines and dots. Named for Dr. Albert Herre, ichthyologist.

Achiridae Broad Soles*Achirus fonsecensis* (Günther)

Two from Post Office Bay, Charles Island, Galapagos, January 4, 1932. Length 85-150 mm. No pectorals, ventrals symmetrical and distinct from anal. Dorsal 77, anal 53. One from Corinto, Nicaragua, February 8, 1932. Length 37 mm.

Cynoglossidae Tonguefishes*Symphurus atramentatus* Jordan and Bollman

One from Jicarita Island, Panama, February 20, 1934. Length 65 mm. One from Bahía Honda, Panama, February 21, 1934. Length 74



0 10 20 mm

ASERAGGODES HERREI

mm. Three from Petatlan Bay, Mexico, March 3, 1934. Length 32-35 mm. Two from White Friars Islands, Mexico, March 2, 1934. Length 31-50 mm. Taken at a depth of 75 fathoms. One from Tenacatita, Mexico, March 4, 1934. Length 86 mm. Seven from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 48-65 mm. Two from Wenman Island, Galapagos, January 11, 1934. Length 60-67 mm. One from Hood Island, Galapagos, January 21, 1939. Length 80 mm. From a depth of 35 fathoms. Color whitish with dark blotches and fine brownish specks on dorsal and anal fins.

Symphurus elongatus (Günther)

One from Port Utria, Colombia, February 15, 1934. Length 80 mm. One from Tenacatita, Mexico, March 4, 1934. Length 50 mm.

Symphurus atricaudus (Jordan and Gilbert)

One from Tenacatita, Mexico, December 10, 1931. Length 159 mm. One from Jicarita Island, Panama, January 29, 1932. Length 55 mm. Color grayish white with alternating black and white marks on posterior half on the dorsal and anal fins.

Holocentridae Soldierfishes

Adioryx suborbitalis (Gill)

One from Panama Bay, December 24, 1931. Length 140 mm. Six from Mazatlan, Mexico, December 7, 1931. Length 34-38 mm. Five from Gorgona Island, Colombia, February 12, 1934. Length 42-59 mm. One from Cabita Bay, Colombia, February 13, 1934. Color in alcohol steel gray, the spinous dorsal with lighter spots between the spines at base, the young with dark margin to dorsal with darker area between the anterior spines at tip.

Fistulariidae Cornetfishes

Fistularia petimba Lacépède

Four from Sihuatanejo, Mexico, December 11, 1931. Length 173-265 mm.

Atherinidae Silversides

Eurystole eriarcha (Jordan and Gilbert)

Four from Black Beach Anchorage, Charles Island, Galapagos, January 17, 1934. Length 32-46 mm. Two from Port Utria, Colombia,

February 17, 1934. Length 45-46 mm. Color white with a distinct wide silvery strip on side. Dorsal IV-I, 13-15; anal 30-34. Jaws terminal.

Mugilidae Mullet

Mugil cephalus Linnaeus

One from Tower Island, Galapagos, January 22, 1932. Length 223 mm.

Mugil thoburni Jordan and Starks

Nine from Tenacatita Bay, Mexico, December 10, 1931. Length 129-233 mm. Twenty-seven from Sihuatanejo, Mexico, December 12, 1931. Length 65-133 mm. The young have only 2 anal spines. Two from Bahia Honda, Panama, December 21, 1931. Length 155-159 mm. Two from Post Office Bay, Charles Island, Galapagos, January 3, 1932. Length 128-298 mm. Three from Port Utria, Colombia, February 14, 1934. Length 55-59 mm. Four from Gorgona Island, Colombia, February 12, 1934. Length 50-55 mm. Two from South Seymour Island, January 22, 1934. Length 31-33 mm. Six from Charles Island, Galapagos, January 22, 1934. Length 20-35 mm.

Dorsal IV-I, 7; anal III, 9 (II, 9 in young). Scales 39-42. The adults have a well-developed adipose eyelid which is absent in the young.

Mugil hospes Jordan and Culver

Two from Colon, Panama, December 24, 1931. Length 201-209 mm. This species is easily distinguished by the long falcate pectorals, which are equal to or greater than length of head. Adipose eyelid present.

Chaenomugil proboscideus (Günther)

One from Sihuatanejo, Mexico, December 12, 1934. Length 138 mm. One from Port Utria, Colombia. Length 103 mm. No adipose eyelid. Length of the snout greater than width of orbit. A black spot at upper axil of pectoral. Scales 44.

Agonostomus hancocki Seale

Two specimens (Type No. 838 and cotype) from fresh-water stream on Chatham Island, Galapagos, January 1, 1932. Length 343 mm.

Sphyraenidae Barracudas

Sphyraena ensis Jordan and Gilbert

One from Tenacatita Bay, Mexico, December 10, 1931. Length 74 mm. One from Tangola-Tangola Bay, Mexico, December 16, 1931.

Length 469 mm. One from Panama Market, Panama, December 24, 1931. Length 394 mm. Dorsal V-I, 8; anal I, 8. Scales 120. Body with 20 dark bands about equal in width to their interspaces.

Sphyræna idiaestes Snodgrass and Heller

One from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 60 mm. This specimen has 8 dark bars over the back and a dark stripe down the side, also 3 dark spots posteriorly on the under side of the body. Maxillary not reaching eye. Origin of ventrals slightly in advance of origin of spinous dorsal, being midway between tip of upper jaw and middle of caudal peduncle.

Polynemidae Threadfins

Polynemus approximans Lay and Bennett

Fifteen from Mazatlan, Mexico, December 7, 1931. Length 49-225 mm. Five from Tenacatita, Mexico, December 10, 1931. Length 50-109 mm. Two from Sihuatanejo, Mexico, December 12, 1931. Length 166-223 mm. Two from Corinto, Nicaragua, February 8, 1932. Length 101-158 mm. Four from Port Utria, Colombia, February 14, 1934. Length 40-53 mm. Six pectoral filaments. Dorsal VIII-I, 12; anal III, 14. Scales 63.

Polynemus opercularis (Gill)

Three from Mazatlan, Mexico, December 7, 1931. Length 305-325 mm. One from Tenacatita, Mexico, December 10, 1931. Length 229 mm. One from Panama Market, Panama, December 10, 1931. Length 287 mm.

Acanthocybiidae Wahoos

Acanthocybium solandri (Cuvier and Valenciennes)

A number of these large game fishes were taken during the cruise. They were especially abundant at Cocos Island, February 2-3, 1932, and are an excellent food fish. Specimens exceeding 1½ meters in length were taken. They are known locally under the following names: Guahu, Guarapucu, Peto, Queenfish, Springer, Ono.

Cybiidae The Sierras

Scomberomorus sierra Jordan and Starks

A number of these fine food and game fishes were taken along the coast of Mexico and in the Galapagos Islands. They may be distinguished

by the bright yellow spots on the sides. Their usual length is about 760 mm. This species is known locally as Spanish Mackerel, Cero, Sierra, Spotted Mackerel.

Scombridae Mackerels

Pneumatophorus diego (Ayres)

One from Tagus Cove, Albemarle Island, Galapagos, January 14, 1934. Length 152 mm. Several schools of the common mackerel were seen in the Galapagos. It is probable that the proper name for this fish is *Scomber scomber* Linnaeus, as we have examined specimens from many seas and found no specific differences.

Katsuwonidae Skipjacks

Katsuwonus pelamis (Linnaeus)

Numerous specimens of this Ocean Skipjack were taken in the Galapagos Islands in January, 1932. The average length was about 650 mm. This species may be distinguished by the 5 distinct stripes on the lower sides, none on the back. In life there are purplish bars over the back, which disappear after death. This fish is also known as Ocean Bonita, Striped Tuna, and Skippy.

Euthynnus lineatus Kishinouye

One from Tower Island, Galapagos, January 22, 1932. Length 415 mm. This species is known as the Black Skipjack and may be distinguished by the dark stripes on the back and the 3 or 4 round dark spots below the pectoral fin. It may also have 3 or 4 stripes on the sides, but these fade soon after death.

Thunnidae Tunnies and Bonitos

Sarda lineolata (Girard)

Specimens of this California Bonita were taken in the Galapagos and at Cocos Island. They may be distinguished by the 10 dark lines that extend upward and back on the sides of the body.

Neothunnus macropterus (Temminck and Schlegel)

The Yellowfin Tuna was common among the islands of the Galapagos, where it may be taken on the hand line. It reaches a weight of 450 pounds. When first taken from the water, it is one of the most gorgeous of fish, being deep blue above, silvery below, with a wonderful flush of

pinkish and golden iridescence over the body. There are no stripes on the body. The pectoral fin is equal to or slightly greater than the length of the head.

Trichiuridae Cutlassfishes

Trichiurus lepturus Linnaeus

One from Balboa, Canal Zone, February 22, 1932. Length 422 mm. Gift from Captain Fred Whalen.

Carangidae Cavallas and Pampanos

Decapterus hypodus Gill

One from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 405 mm. These have a single detached finlet behind the dorsal and the anal fin, 30 scutes on the lateral line, and a distinct opercular spot. This species is known locally as Mackerel Scad.

Trachurops crumenophthalma (Bloch)

Twenty-seven from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 150-189 mm. Five from Acapulco, Mexico, December 15, 1931. Length 175-208 mm. Three from La Plata Island, Ecuador, February 10, 1934. Length 85-105 mm. This Big-eyed Scad is easily identified by the deep cross furrow at the isthmus and by the fleshy projection into the gill cavity. They were so abundant at Charles Island, Galapagos, that half the catch had to be turned out of the net before it could be drawn out of the water.

Hemicaranx atrimanus (Jordan and Gilbert)

One from Panama Market, December 23, 1931. Length 178 mm.

Paratractus caballus (Günther)

One from Tenacatita, Mexico, December 10, 1931. Length 229 mm. Three from Acapulco, Mexico, December 15, 1931. Length 188-227 mm. One from Tower Island, Galapagos, January 20, 1932. Length 238 mm. One from Corinto, Nicaragua, February 9, 1932. Length 307 mm. This Common Green Jack has the breast fully scaled, pectoral fins much longer than the head, dorsal VIII-I, 24; anal II-I, 21; scutes 41-44.

Xurel marginatus (Gill)

Seven from Mazatlan, Mexico, December 7, 1931. Length 100-198 mm. One from Bahia Honda, Panama, December 21, 1931. Length 228 mm. One from Panama Market, December 24, 1931. Length 167 mm.

One from Corinto, Nicaragua, February 9, 1932. Length 94 mm. One from Acapulco, Mexico, February 12, 1932. Color silvery, darker above, no black spots except a minute black dot at the origin of the lateral line. Dorsal darker on its outer half. Lower fins yellowish. Young specimens are banded. Dorsal VIII-I, 19; anal II-I, 17. Maxillary ending on a line with middle of pupil. Breast fully scaled. Thirty-three scutes in lateral line. This fish is known locally as the Big-eyed Jack.

Caranx hippos (Linnaeus)

Twenty from Mazatlan, Mexico, December 7, 1931. Length 87-410 mm. Four from Panama Market, December 24, 1931. Length 85-142 mm. This Horse Crevalla has the dorsal VI, 20-21, anal II, 17. Breast naked except for a small patch of scales at base of ventrals. Thirty-eight armed scutes. Pectorals falcate, longer than head.

Hynnys hopkinsi Jordan and Starks

One from White Friars Islands, Mexico, February 14, 1932. Length 658 mm. Color silvery with a bluish flush when first taken from the water. Jaws with fine granulate teeth. Maxillary extending to a line with the pupil. Eighteen soft rays in the dorsal and 16 in the anal. Very fine scales on each side of the breast.

Argyreosus oerstedii (Lütken)

One from Panama Market, December 24, 1931. Length 179 mm. Dorsal with 18 soft rays, anal with 15. Dorsal and anal rays extending to beyond caudal. Spinous dorsal and posterior half of ventrals black.

Vomer declivifrons Meek and Hildebrand

One from Panama Market, December 24, 1931. Length 234 mm. Head rounded above eyes. Dorsal with 24 rays. No scutes. Lateral line with deep curve.

Selene brevoortii (Gill)

Four from Mazatlan, Mexico, December 7, 1931. Length 47-192 mm. Two from Tenacatita, Mexico, December 10, 1931. Length 363 mm. Eight from Bahia Honda, Panama, December 21, 1931. Length 44-55 mm. One from Panama Market, December 24, 1931. Length 164 mm. Three from Corinto, Nicaragua, February 9, 1932. Length 46-187 mm. Dorsal VII, 20; anal II-I, 17. No scutes.

Trachinotus rhodopus (Gill)

Three from Panama Market, January 29, 1932. Length 133-185 mm. Color silvery, becoming darker on back. A dark opercular spot. Axil of pectorals dark.

Trachinotus paloma Jordan and Starks

Two from Mazatlan, Mexico, December 8, 1931. Length 40-45 mm.

Oligoplites saurus (Bloch and Schneider)

One from Sihuatanejo Bay, Mexico, December 11, 1931. Length 63 mm. This species is known locally as the Yellow-tailed Leather Jacket.

Oligoplites mundus Jordan and Starks

One from Panama Market, December 24, 1931. Length 360 mm. Color bluish above, golden below. Depth 2.8 in length. Maxillary extending far posterior of eye.

Seriolidae Amberjacks*Elagatis bipinnulatus* (Quoy and Gaimard)

A number of these "Rainbow Runners," as they are locally known, were taken at White Friars Islands, February 14, 1932. They may be distinguished by the single finlet behind the dorsal and the anal. Color bright blue above to near middle of side, where a wide stripe of yellow extends from head to tail; this is bordered below by a narrow blue line, all below being silvery white. Length 1 meter.

Seriola dorsalis (Gill)

Numerous specimens of the Yellow Tail or Amberjack, as they are locally known, were taken along the Mexican coast and in the Galapagos. They may be distinguished by the dark or brassy stripe from head to tail. Length up to 1 meter.

Nematistiidae Roosterfish*Nematistius pectoralis* Gill

This fine food and game fish was taken at many localities along the Mexican coast and in the Gulf of California. In life it has a black stripe on the side extending up and back. Specimens of more than 1 meter in length were taken.

Kuhliidae Island Perch*Kuhlia taeniura* (Cuvier and Valenciennes)

One from Gorgona Island, Colombia, February 12, 1934. Length 52 mm. This species has two oblique dark bars on the caudal lobes and a bar in the center of the fin.

Centropomidae Robalos*Centropomus viridis* Lockington

Six from Sihuatanejo, Mexico, December 12, 1931. Length 86-125 mm. Maxillary extending to below middle of eye. Scales 75-80. Tip of dorsal fin black.

Centropomus pedimacula Poey

One from Panama Market, December 24, 1931. Length 469 mm. This species has a very distinct silvery lateral line located in a dark stripe. Ventral fins tipped with dusky wash. First and third anal spines very long and strong.

Centropomus armatus Gill

Eight from Tenacatita, Mexico, December 10, 1939. Length 150-203 mm. One from Guayas River, Guayaquil, Ecuador, February 6, 1934. Length 185 mm. Lateral line not dark. Second anal spine equal to length of head. Large teeth at angle of preopercle. Scales 48 in lateral line. Dorsal VII-I, 10; anal III, 6. Color yellowish, darker above; dorsal fins with dusky wash.

Epinephelidae Groupers*Epinephelus analogus* Gill

Two from Tower Island, Galapagos, January 23, 1932. Length 205-211 mm. Color grayish green covered with fine dark dots or specks.

Epinephelus merra Bloch

One from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 165 mm. Body brown covered with fine white lines marking small hexagonal spots. All the fins spotted.

Epinephelus septemfasciatus (Thunberg)

One from Sullivan Bay, James Island, Galapagos, January 23, 1934. Length 57 mm. Body with 8 distinct dark vertical bands about equal to interspaces, the bar on the caudal peduncle greater in width and jet black, a black line at maxillary groove.

Epinephelus labriformis (Jenyns)

One from Panama Market, December 24, 1931. Length 335 mm. One from Isabel Island, Mexico, February 16, 1932. Length 225 mm. One from Espiritu Santo Island, Mexico, February 18, 1932. Length 229 mm. Two from South Seymour Island, Galapagos, January 15, 1932. Length 135 mm. Color greenish gray with slight pinkish wash, numerous white spots over the body.

Promicrops itaiara (Lichtenstein)

Two large Jewfish with a weight of approximately 25 kilos each were captured at Espiritu Santo Island, February 18, 1932.

Alphestes multiguttatus (Günther)

One from Panama Market, December 24, 1931. Length 209 mm.

Dermatolepis punctatus Gill

One from Charles Island, Galapagos, January 3, 1932. Length 207 mm. One from Cocos Island, February 2, 1932. Length 279 mm. A few of this species were brought alive to Steinhart Aquarium, San Francisco, where they lived quite contentedly for seven years.

Mycteroperca olfax (Jenyns)

One from Tower Island, Galapagos, January 20, 1932. Length 340 mm. One from Panama, February 1, 1932. Length 335 mm. This species was very abundant in the Galapagos Islands and in the Gulf of California. Many specimens were taken and used as food. The Golden Grouper seems only a color variety of this species.

Xystroperca pardalis (Gilbert)

One from Ensenada de los Muertos, Mexico, February 20, 1932. Length 389 mm. Grayish with darker spots and mottlings, the fins covered with small dark spots.

Serranidae Sea Bass*Paralabrax humeralis* (Cuvier and Valenciennes)

One from Tagus Cove, Albemarle Island, Galapagos, January 6, 1932. Length 222 mm. One from Indefatigable Island, Galapagos, January 13, 1932. Length 121 mm. This is a common sea bass of the Galapagos Islands. They are easily distinguished by the row of large white blotches along the side with two larger white blotches above these.

Cratinus agassizii Steindachner

Two from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 360-455 mm. Specimens of this bass with its peculiar elongated dorsal spines were taken alive. They seemed quite contented in the tanks at the aquarium and lived for seven years.

Diplectrum pacificum Meek and Hildebrand

One from Bahia Honda, Panama, February 12, 1934. Length 42 mm. Color gray with three dark longitudinal lines on upper half of body. A

large black caudal spot. Some indistinct crossbars are indicated. Dorsal X, 12; anal III, 7. Margin of preopercle distinctly toothed.

Prionodes fasciatus Jenyns

One from Tagus Cove, Albemarle Island, Galapagos. Length 135 mm. One from Sullivan Bay, James Island, Galapagos, January 23, 1934. Length 60 mm. Dorsal X, 12; anal III, 7. Body with 10 indistinct broken crossbands. Small round black dots on lower anterior portion of body. Fins spotted.

Paranthias furcifer (Cuvier and Valenciennes)

Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 165-170 mm. Four from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 120-450 mm. Two from Tower Island, Galapagos, January 20, 1932. Length 95-260 mm. When first taken from the water, these fish have a beautiful pinkish flush over the body. There are 4 or 5 small white points on the sides. These fish take kindly to captivity, and specimens taken in 1932 are still (1940) alive in Steinhart Aquarium.

Pseudochromidae

Pseudochromis polyacanthus Bleeker

One from Port Utria, Colombia, February 15, 1934. Length 45 mm. Distinguished from related forms by the distinct black spot on the opercle and the seven dorsal spines.

Lobotidae Tripletails

Verrugato pacificus (Gilbert)

One specimen from Panama Market, December 24, 1931. Length 195 mm. Color uniform brown. The rather uniform size of the soft dorsal, anal, and caudal may well supply the local name "Tripletail" to this fish.

Lutianidae Snappers

Lutianus jordani (Gilbert)

One from Cocos Island, February 3, 1932. Length 385 mm. Color reddish brown, fins darker.

Lutianus kasmira (Forsk.)

One from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 243 mm. Color golden with four blue stripes which are

margined with deeper blue, fins yellowish. Lighter colored below. A number of this species were secured alive at James Bay, James Island, and at Cocos Island, and were brought to Steinhart Aquarium, where they may still be seen swimming about in the tanks. (*Lutianus viridis* is probably the same species.)

Lutianus argentiventris (Peters)

Four from Panama Market, December 24, 1931. Length 145-175 mm. Three from Corinto, Nicaragua, February 8, 1932. Length 50-100 mm.

Lutianus guttatus (Steindachner)

One from Acapulco, Mexico, December 15, 1931. Length 329 mm. One from Panama Market, December 24, 1931. Length 189 mm. One from La Libertad, Ecuador, February 9, 1934. Length 36 mm. Color grayish with a large round black spot just below the anterior portion of soft dorsal fin. Three or 4 stripes on lower half of body and numerous lines extending up and back on upper portion. These, however, are very indistinct in some specimens. The young have indications of dark bands.

Lutianus novemfasciatus (Gill)

Fourteen from Tenacatita, Mexico, December 10, 1931. Length 75-150 mm. One from Mazatlan, Mexico, December 7, 1931. Length 208 mm. This species, known locally as the "Dog Snapper" and "Red Snapper," is quite common along the coast of Mexico and specimens up to 30 kilos in weight were taken. The adults are uniform red in color. The young show indistinct crossbars.

Raizero aratus (Günther)

One from Tenacatita, Mexico, December 10, 1931. Length 152 mm. Dorsal XI, 12; anal III, 7. A dark area at axil of pectoral.

Aphareus furcatus (Lacépède)

One from Cocos Island, February 2, 1932. Length 385 mm. Color in life bluish gray with the dorsal and anal having a few dark dots. The posterior rays of the dorsal and anal are elongate.

Haemulidae The Grunters

Haemulon scudderi Gill

One from Seymour Island, Galapagos, January 10, 1932. Length 274 mm. Center of scales dark, forming oblique lines above the lateral line.

Orthostoechus maculicauda Gill

One from Panama Market, December 24, 1931. Length 209 mm. Color silvery gray with pearly lines on the side. A large blackish blotch at base of caudal.

Paraconodon pacifici (Günther)

One from Guayas River at Guayaquil, Ecuador, February 6, 1934. Length 150 mm. Head 3.2 into standard length. Depth 2.1. Dorsal XI, 15; anal III, 9. Scales 48. No teeth on vomer or palatine; fine, sharp-pointed teeth in the jaws, those in front somewhat enlarged. Eye 3.1 in length of head, being equal to the interorbital space, which is fully scaled. Preopercle armed. Second anal spine very large and longer than the longest dorsal spine. Caudal lunate. Maxillary extending to below front margin of eye.

Paraconodon dovii (Günther)

One from Panama Market, December 24, 1931. Length 222 mm. Second anal spine very strong, its length 1.6 in head. Color grayish with 3 wide oblique bands on sides.

Anisotremus interruptus (Gill)

One from James Bay, James Island, Galapagos, January 10, 1932. Length 224 mm. One from Seymour Island, Galapagos, January 15, 1932. Length 335 mm. Three from Tower Island, Galapagos, January 15, 1932. Length 356 mm. A bright-colored fish, blue gray anteriorly, shading into orange on posterior portion.

Anisotremus scapularis (Tschudi)

One from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 265 mm.

Anisotremus taeniatus Gill

One from Tenacatita, Mexico, December 10, 1931. Length 229 mm. This species very closely resembles the eastern Porkfish with its distinctive markings.

Brachydeuterus leuciscus (Günther)

One from Panama Market, December 24, 1931. Length 229 mm. Dark stripes on the middle of sides, axil of pectoral dark.

Rhencus panamensis (Steindachner)

One from Panama Market, December 24, 1931. Length 200 mm. Color silvery, a black spot on opercle, another under the middle of the spinous dorsal.

Pomadasys macracanthus (Günther)

One from Panama Market, December 24, 1931. Length 269 mm. Color silvery with 4-5 wide indistinct bands extending down to middle of sides. Second anal spine very strong, extending beyond soft rays.

Orthopristis cantharinus (Jenyns)

Five from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 20-27 mm. One from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 348 mm. Grayish in color with irregular crosslines. The young have 7-8 dark bands.

Orthopristis lethopristis Jordan and Fesler

One from Panama Market, December 24, 1931. Length 335 mm. A wide black area on opercular membrane. Axil of pectoral black.

Orthopristis forbesi Jordan and Starks

One from Seymour Island, Galapagos, January 15, 1932. Length 332 mm. One from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 329 mm. Color reddish brown, somewhat lighter below. Gill membrane black. Dorsal XII, 14; anal III, 9.

Sparidae Porgies*Archosargus pourtalesii* (Steindachner)

One from Post Office Bay, Charles Island, Galapagos, January 3, 1932. Length 304 mm. Marked with yellow stripes from head to tail. A round black spot above pectoral fin.

Kyphosidae Pilotfishes*Kyphosus analogus* (Gill)

One from Sihuatanejo, Mexico, December 11, 1931. Length 254 mm.

Gerridae Mojarras*Eucinostomus californiensis* (Gill)

Nineteen from Mazatlan, Mexico, December 8, 1931. Length 74-175 mm. Three from Tenacatita, Mexico, December 10, 1931. Length 145-152 mm. Nine from Sihuatanejo, Mexico, December 11, 1931. Length 84-152 mm. Eight from Acapulco, Mexico, December 14, 1931. Length

63-109 mm. Nine from Bahia Honda, Panama, December 21, 1931. Length 25-84 mm. Two from Panama Market, December 24, 1931. Length 146-152 mm. Three from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 62-100 mm. Five from South Seymour Island, Galapagos, January 15, 1932. Length 94-127 mm. Four from Corinto, Nicaragua, February 8, 1932. Length 82-109 mm. One from Guayas River at Guayaquil, Ecuador, February 6, 1934. Length 143 mm. This is one of the most abundant species of the regions visited, being found on all sandy beaches. Color is silvery with a jet-black tip to the dorsal fin, usually with a white area just below. Opercle smooth, preopercle entire.

Gerres cinereus (Walbaum)

Four from Tenacatita, Mexico, December 10, 1931. Length 115-229 mm. Two from Sihuatanejo, Mexico, December 12, 1931. Length 196-330 mm. One from Tower Island, Galapagos, January 20, 1932. Length 145 mm. Color silvery with 7-8 broken dark bars on the sides.

Diapterus peruvianus (Cuvier and Valenciennes)

Two from Panama Market, December 24, 1931. Length 145-252 mm. One from Corinto, Nicaragua, February 9, 1932. Length 82 mm. Color silvery with a slight dusky wash on ventral fins.

Eugerres lineatus (Humboldt)

One from Sihuatanejo, Mexico, December 11, 1931. Length 196 mm. Silvery with a dark line on each row of scales. The lateral line is located in a narrow dark line. All fins except pectorals are grayish.

Mullidae Surmulletts

Upeneus grandisquamis Gill

One from Panama Market, December 24, 1931. Length 184 mm. Head 3.3 in standard length. Depth 3. Eye 4 in head. Scales 30 in lateral line, 3 rows on cheeks. Barbules fall slightly short of posterior edge of opercle. Color pinkish white, caudal yellow.

Mulloides auriflamma (Forsk.)

One from Cocos Island, February 2, 1932. Length 374 mm. Scales 38 in lateral line. Eye 4.5 in length of head. Color pinkish with a slight wash of yellow. A bright golden stripe from head to caudal. This extends the range of this species from Nukuhiva of the Marquesas Islands, where the author took 6 specimens in 1902.

Sciaenidae Croakers

Larimus acclivis Jordan and Bristol

One from Panama Market, December 24, 1931. Length 223 mm. One from Guayas River at Guayaquil, Ecuador, July 6, 1934. Length 150 mm. Mouth but little oblique. Lower jaw projecting. Second anal spine strong and extending to tip of rays. Color silvery with narrow dark oblique lines on sides above middle of body.

Bairdiella ensifera (Jordan and Gilbert)

One from Guayas River at Guayaquil, Ecuador, February 6, 1934. Length 180 mm. Dorsal IX-I, 24; anal II, 8. Sixty-two scales in the lateral line. Strong teeth at angle of preopercle, the lower one directed down. Second anal spine strong, equal in length to distance from anterior margin of eye to posterior margin of opercle. Color silvery, a narrow dark line along each row of scales, spinous dorsal and outer half of anal dark.

Nector chrysoleucus (Günther)

One from Panama Market, December 24, 1931. Length 224 mm. One from Mazatlan, Mexico, December 8, 1931. Length 319 mm. One from Guayas River at Guayaquil, Ecuador, February 6, 1934. Length 175 mm. Color silvery with the center of the scales yellowish, forming indistinct lines. Dorsal, caudal, and anal dusky; in large specimens the fins are yellowish.

Zestis oscitans (Jordan and Gilbert)

One from Panama Market, December 24, 1931. Length 189 mm. Mouth quite oblique. Interorbital space broad and flat. Two spines at angle of preopercle. Pectorals longer than head. Caudal lanceolate.

Ophioscion typicus Gill

One from Tenacatita, Mexico, December 10, 1931. Length 157 mm. No barbules. Teeth setiform, with some enlarged teeth in upper jaw. Color silvery, lighter below. Fins grayish.

Umbrina galapagorum Steindachner

One from Post Office Bay, Charles Island, Galapagos, January 2, 1932. Length 170 mm.

Umbrula elongata (Günther)

Three from Mazatlan, Mexico, December 7, 1931. Length 122-252 mm. One from Acapulco, Mexico, December 15, 1931. Length 157 mm.

A long slim fish with a depth of 4.7 in standard length. A single fleshy barbule on chin. Color uniform silvery.

Polyclemus dumerili (Bocourt)

One from Panama Market, December 24, 1931. Length 252 mm. Six wide distinct black bands over the body extending more or less onto the dorsal fin. Pectorals, caudal, and anal yellowish.

Zaclemus goodei (Gilbert)

One from Panama Market, December 24, 1931. Length 202 mm. Four indistinct dark bands over back. Fins grayish.

Otolithidae Weakfish

Isopisthus remifer Jordan and Gilbert

One from Panama Market, December 24, 1931. Length 253 mm. Color silvery with black in axil of the pectoral.

Nebris occidentalis Vaillant

One from Panama Market, December 24, 1931. Length 279 mm. No barbules. Two very weak anal spines. Head spongy and fully scaled. Eye small. Mouth oblique. Color silvery.

Eriscion nebulosus (Cuvier and Valenciennes)

One from Panama Market, December 24, 1931. Color silvery with grayish reticulations above the lateral line. Lower jaw not included. Teeth small canines. Caudal lanceolate.

Cirrhitidae

Cirrhitus rivulatus (Valenciennes)

Two from Cocos Island, February 2, 1932. Length 304 mm. Three (young) from Mazatlan, Mexico, December 8, 1932. Length 33-61 mm. One from Bahia Honda, Panama, February 21, 1934. Length 30 mm. Four from Port Utria, Colombia, February 15, 1934. Length 40-58 mm. Two from Gorgona Island, Colombia, February 13, 1934. Length 34-35 mm. The adult of this species is a most peculiarly colored fish, being greenish with rivulated bands and spots of yellow edged with bright blue, more or less chainlike. The young (*C. betaurus* Gill) may prove to be a distinct species; all of our specimens are yellowish with 4-5 jet-black bands as wide as the interspaces.

Ephippidae Spadefish*Parapsettus panamensis* Steindachner

One from Sihuatanejo, Mexico, December 11, 1931. Length 159 mm. Dorsal IX, 28; anal III, 24. Snout somewhat overhanging the lower jaw. Lateral line curved.

Chaetodontidae Butterflyfishes*Chaetodon humeralis* Günther

One from Tagus Cove, Albemarle Island, Galapagos, January 12, 1934. Length 30 mm. Two from Black Beach Anchorage, Charles Island, Galapagos, January 14, 1934. Length 14-15 mm. One from South Seymour Island, Galapagos, January 22, 1934. Length 35 mm. Color in alcohol dull brownish yellow. A distinct ocular band almost equal to eye extends from origin of dorsal and unites with its fellow below. A second dark band, slightly greater in width, extends from the anterior portion of the spinous dorsal down the opercles, covering the base of the pectorals, and to the axil of the ventrals. A third wide dark band from posterior of spinous dorsal along base of soft dorsal and anal. Caudal peduncle black. Ventrals black. Soft dorsal, caudal, and anal uniform yellowish.

Centropyge passer (Valenciennes)

One from Panama Market, December 24, 1931. Length 209 mm. Blue black with a distinct white stripe extending down to the middle of side. Caudal, pectoral, and ventral yellow.

Acanthuridae Tangs*Acanthurus crestonis* (Jordan and Starks)

One from Panama Market, December 24, 1931. Length 209 mm. Color uniform bister brown, with a slightly darker area encircling the base of caudal. Teeth lobate. (Very near if not identical with *A. matoides* Cuvier and Valenciennes.)

Scorpaenidae Scorpionfishes*Sebastes kelloggi* Jenkins

One from Port Culebra, Costa Rica, February 25, 1934. Length 60 mm. Dorsal XII, 10; anal III, 5. No teeth on the palatine. Four spines

on posterior margin of opercle. Maxillary extending to posterior of pupil. Color grayish, mottled with darker gray. Three distinct dark bars on caudal.

Scorpaenopsis gibbosus (Schneider)

Five from Charles Island, Galapagos, January 27, 1934. Length 15-27 mm. One from Bahia Honda, Panama, February 21, 1934. Length 32 mm. Two from Hood Island, Galapagos, January 31, 1934. Length 22-44 mm. One from Port Utria, Colombia, February 14, 1934. Length 39 mm.

Scorpaenodes xyris (Jordan and Gilbert)

One from Espiritu Santo Island, Mexico, February 10, 1932. Length 555 mm. The 2nd anal spine is 4 times the length of the 1st spine. Teeth on the vomer, none on the palatines. Body mottled black and red, a large round black spot on head posterior of eye.

Scorpaena mystes Jordan and Starks

One from Port Utria, Colombia, February 15, 1934. Length 50 mm. Dorsal XII, 10; anal III, 5. Palatines with teeth. Three distinct cross-bars on caudal. Axil of pectoral jet black with white spots.

Scorpaena isthmensis Meek and Hildebrand

One from Port Utria, Colombia, February 14, 1934. Length 27 mm.

Scorpaena guttata Girard

One from Cedros Island, Mexico, February 25, 1934. Length 170 mm.

Scorpaena histrio Jenyns

Five from Post Office Bay, Charles Island, Galapagos, January 15, 1934. Length 19-30 mm. Two from Tagus Cove, Albemarle Island, January 12, 1934. Length 45-55 mm. One from La Libertad, Ecuador, February 9, 1934. Length 38 mm. Four from Bahia Honda, Panama, February 22, 1934. Length 40-50 mm. Eight from Port Culebra, Costa Rica, February 24, 1934. Length 20-45 mm. One from Port Utria, Colombia, February 15, 1934. Length 60 mm. One from Tenacatita Bay, Mexico, March 4, 1934. Length 70 mm. Color in alcohol grayish mottled with dusky on back and sides, belly white. Posterior half of ventral fins and a portion of the pectorals black. A wide black band through the middle of caudal.

Sebastapistes bynoensis (Richardson)

Three from White Friars Islands, Mexico, February 3, 1934. Length 20-55 mm.

Pontinus sierra (Gilbert)

One from Port Culebra, Costa Rica, February 2, 1934. Length 35 mm. Dorsal XII, 10; anal III, 5. All rays of pectoral simple. Palatine with teeth. A distinct filament above eye. Two diverging spines on pre-orbital. Color gray, with small dots of brown, and two or more indistinct dark bands on body.

Pontinus strigatus Snodgrass and Heller

One from Tagus Cove, Albemarle Island, Galapagos, January 5, 1934. Length 95 mm. Color reddish above, pale below, fins more or less barred with dusky.

Triglidae Sea Robins*Gurnardus xenisma* (Jordan and Bollman)

Three from Bahia Honda, Panama, February 21, 1934. Length 15-45 mm. Head with large spines, the snout ending in two flat spinelike projections. Spinous dorsal with distinct black ocellus between 4-5 spines.

Prionotus miles Jenyns

One from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 34 mm. Dorsal X, 12; anal 10. Color brownish with indistinct bars. Ventral and anal fins white. Pectorals black. Caudal barred. Distal portion of spinous dorsal black.

Pomacentridae Demoiselle*Eupomacentrus leucorus* (Gilbert)

Fourteen from Post Office Bay, Charles Island, Galapagos, January 3, 1932. Length 65-112 mm. This species may be easily recognized by the uniform dark brown body and the narrow bright yellow or whitish tips on the pectorals.

Eupomacentrus rectifraenum (Gill)

Twenty from Mazatlan, Mexico, December 8, 1931. Length 61-65 mm. Seven from Port Utria, Colombia, February 15, 1934. Length 19-23 mm. Color purplish, with a pale blue line on each row of scales, 2 blue lines on snout to nape, a blue line from eye to tip of snout, another blue

line below eye, a blue-edged ocellus on the anterior portion of the soft dorsal fin, a black spot on top of caudal peduncle.

Eupomacentrus arcifrons (Snodgrass and Heller)

Nineteen from Seymour Island, Galapagos, January 14, 1931. Length 55-103 mm. One from Darwin Bay, Tower Island, Galapagos, January 22, 1931. Length 128 mm. One from Indefatigable Island, Galapagos, January 12, 1931. Length 112 mm. Five from Black Beach Anchorage, Charles Island, Galapagos, January 27, 1934. Length 19-20 mm. Color dark brown with caudal peduncle and caudal fin yellowish. The adults have a distinctively arched forehead.

Stegastes dorsalis (Gill)

One from Sihuatanejo, Mexico, December 11, 1931. Length 297 mm. Blue black in color. Dorsal, anal, and caudal with elongated tips.

Abudefduf saxatilis (Linnaeus)

One from Espiritu Santo Island, Mexico, February 18, 1932. Length 65 mm. One from Cabita Bay, Colombia, February 13, 1934. Length 42 mm. Nine from Gorgona Island, Colombia, February 12, 1934. Length 22-94 mm. Two from Jicarita Island, Panama, February 20, 1934. Length 24-26 mm. Distinguished by the 5 wide dark bands over the body, these being about equal to interspaces. No dark stripes on caudal lobes. A dark spot in upper axil of pectoral. No dark spot on soft dorsal or anal.

Labridae Wrasse Fishes

Bodianus diplotaenia (Gill)

One from Indefatigable Island, Galapagos, January 12, 1932. Length 240 mm. Color pinkish with dark markings; caudal, soft dorsal, and anal yellowish.

Pimelometopon pulcher (Ayres)

One from Cedros Island, Mexico, February 25, 1932. Length 430 mm. This species was very common at Cedros Island.

Iridio nicholsi (Jordan and Gilbert)

One from James Bay, James Island, Galapagos, January 9, 1932. Length 272 mm. One from Tower Island, Galapagos, January 21, 1932. Length 65 mm. Color grayish green with a large dark area below the middle of spinous dorsal fin.

Julidio notospilus (Günther)

One from Mazatlan, Mexico, December 7, 1931. Length 57 mm. Color greenish, with a lighter stripe from head to caudal. A black blotch on the anterior portion of soft dorsal. No posterior canines. Scales 26.

Thalassoma lutescens (Lay and Bennett)

One from Tower Island, Galapagos, January 21, 1932. Length 84 mm. Head naked except for a small patch of scales three rows deep on upper portion of opercle. Scales 28.

Eleotridae Sleepers*Gymneleotris seminuda* (Günther)

One from Port Utria, Colombia, February 15, 1934. Length 35 mm. Ventrals well separated at base, caudal with numerous short rays at base. Posterior half of the fish scaled. Color red with numerous well-defined white narrow bands, 12 of which are posterior to pectoral axil.

Gobiidae Gobies*Bathygobius soporator* (Cuvier and Valenciennes)

Nine from Mazatlan, Mexico, December 7, 1931. Length 40-50 mm. Five from Isabel Island, Mexico, February 16, 1932. Length 25-95 mm. Fourteen from Espiritu Santo Island, Mexico, February 18, 1932. Length 37-85 mm. Two from Charles Island, Galapagos, January 3, 1932. Length 32-87 mm. One from Narborough Island, Galapagos, January 6, 1932. Length 82 mm. Seventy-seven from South Seymour Island, Galapagos, January 15, 1932. Length 23-98 mm. Eighteen from Black Beach Anchorage, Charles Island, Galapagos, January 13, 1934. Length 35-78 mm. One from Cabita Bay, Colombia, February 13, 1934. Length 37 mm. Distinguished by the free silky rays at the upper margin of the pectorals and the slight constriction of the tip of the tongue, making it somewhat bilobed. Color greenish with darker mottlings and spots. Specimens from Narborough Island are darker, which may be due to the dark lava pools in which they live.

Odontogobius gilberti (Heller and Snodgrass)

Two from Tagus Cove, Albemarle Island, Galapagos, January 12, 1934. Length 19-21 mm. One from Charles Island, Galapagos, January

26, 1934. Length 18 mm. Color yellowish white, with 12 narrow dark bands over the body. The anterior spines of the dorsal are very long and filamentous.

Zonogobius rhizophora (Heller and Snodgrass)

One from Black Beach Anchorage, Charles Island, Galapagos, January 13, 1934. Length 26 mm.

Garmannia paradoxa (Günther)

Two from Espiritu Santo Island, Mexico, February 19, 1932. Length 42-50 mm. Anterior rays of the dorsal elongated. Color grayish, with 12 white bands over the body.

Cotylopus cocoensis Heller and Snodgrass

Twenty-four from Wafer Creek on Cocos Island, February 3, 1932. Length 25-79 mm. Our specimens were secured in the fresh water about half a mile up the small stream that empties into Wafer Bay. All are dull brown, almost black in color with black spots on the side of the head and at the base of the pectorals. There is a lighter area through the soft dorsal. Ventrals very short and cuplike. In old males the dorsal rays extend slightly beyond the membrane of the fin. We counted 65 scales in the lateral line instead of 56, as given in the original description.

Echeneidae Remoras

Remora remora (Linnaeus)

One from Balboa, Canal Zone, February 6, 1934. Length 175 mm. Lamella 18, the disk long. Ventrals adnate to body, pectorals rounded. Lower jaw scarcely projecting. Maxillary not extending to below eye. Color bluish, the fins darker.

Remoropsis brachyptera (Lowe)

One from Balboa, Canal Zone, July 9, 1934. Length 179 mm. Color uniform yellowish. Lower jaw projecting. Maxillary extending to a line with the eye. Ventrals not adnate to body.

Callionymidae Dragonets**Callionymus garthi**, new species

Plate 3, Fig. 3

Holotype.—Calif. Acad. Sci. No. 5746.*Type locality*.—One from Port Utria, Colombia, February 14, 1934. Length 30 mm.

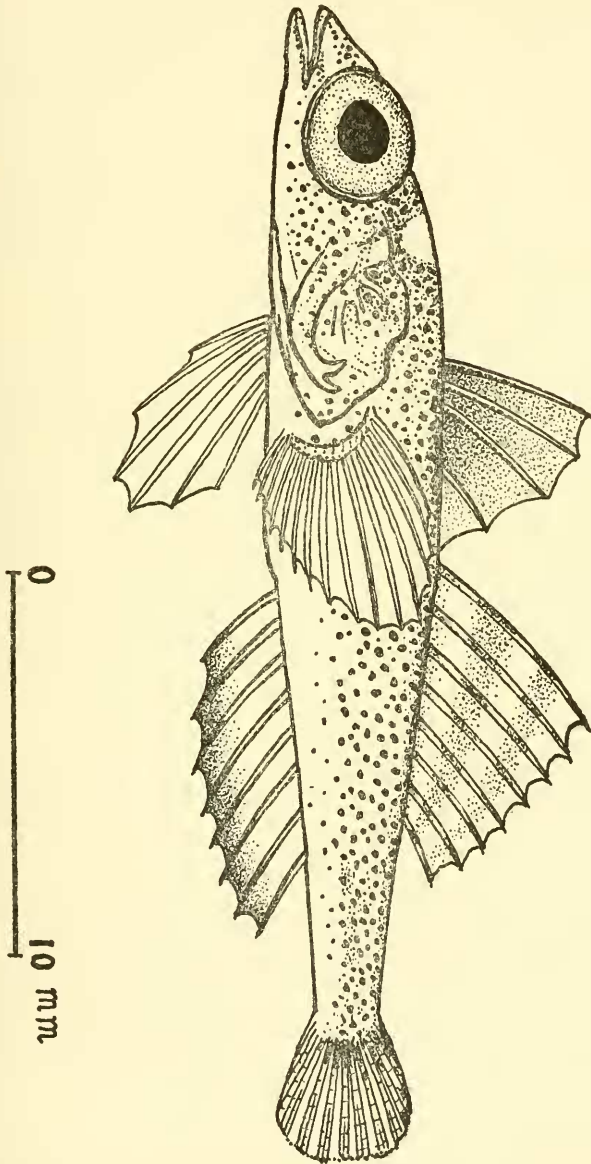
Head, (measured from tip of snout to gill openings), 3.1 in length. Depth 2 in head. Eye 2.5 in head. The length of the snout is $\frac{1}{2}$ the width of the eye, a very narrow ridge separating the large eyes. Snout triangular. Small teeth in narrow bands in jaws. A large bifurcated spine at angle of preopercle. Gill with small round opening on the dorsal surface. Body naked, without lateral line. Fins all well developed, especially the ventrals, but no elongate or filamentous rays or spines. The longest dorsal spine equal to the distance from tip of snout to posterior margin of orbit. Color yellowish white, the back entirely covered with fine brown specks. Dorsal fin dusky at base. Anal fin with two narrow indistinct dark stripes. Anal with some dark markings on its outer third. A dark area at base of caudal fin, all other fins uniform white. Named for John S. Garth, zoologist.

Ammodytidae Sand Lance*Bleekeria gilli* Bean

One from Charles Island, Galapagos, January 16, 1934. Length 70 mm. Head 4, depth 9.7. Eye equal to length of snout. Caudal forked. No ventrals. No teeth. Lateral line of 105 pores extending along side of back to caudal peduncle. Origin of dorsal above axil of pectorals. Origin of anal midway between end of caudal vertebra and opercle. This forms an addition to the recorded species from the Galapagos.

Dactyloscopidae Sand Stargazers*Dactyloscopus lunaticus* Gilbert

Two from Petatlan Bay, Mexico, March 3, 1934. Length 55-84 mm. Opercle with stiff fringe posteriorly. Lower jaw projecting. Eye small. Three brownish stripes on the body from head to tail.



CALLIONYMUS GARTHI

Myxodagnus opercularis Gill

One from Tangola-Tangola Bay, Mexico, December 16, 1934. Length 77 mm. Head 4.3, depth 8. Dorsal 39; anal II, 36. Lower jaw projecting beyond upper by a distance greater than eye. Snout about equal to eye. Curved movable teeth directed backward in lower jaw, a single row of fine pointed teeth in upper jaw. Opercles extending back and covering entire base of pectorals, 5 or 6 membranous fingers on upper posterior portion of opercle. Body with thin scales, the lateral line strongly curved anteriorly, becoming straight on a line with the tip of the pectorals and extending to caudal on the median line of the side. Forty-six pores in the lateral line. Color in alcohol uniform yellowish white.

Gillellus semicinctus Gilbert

One from Tangola-Tangola Bay, Mexico, February 28, 1939. Length 33 mm. Body white with 5 wide dark bands over back and down to middle of side, a black band around base of caudal.

Clinidae Kelpfish*Starksia cremnobates* (Gilbert)

Three from Tangola-Tangola Bay, Mexico, March 1, 1934. Length 27-30 mm. Indistinct bands extending up into the dorsal fin. A dark spot or bar behind eye. Distinct teeth on vomer and palatines.

Auchenopterus monophthalmus Günther

One from Espiritu Santo Island, Mexico, February 18, 1932. Length 37 mm. Dorsal III-XXVI; anal II, 19. Color greenish with 7 indistinct bands on body. A black ocellus on 18-21 rays of dorsal.

Enneapterygius corallicola Kendall and Radcliffe

One from Black Beach Anchorage, Charles Island, Galapagos, January 13, 1934. Length 62 mm. One from Port Utria, Colombia, February 14, 1934. Length 25 mm. Dorsal fin with 3 distinct divisions, III-13-12, or 3 spines and 25 rays. A small tentacle at nostril and another on orbit. Color greenish gray with 6 double bands over body. Cheeks with 3 dark bars.

Malacoctenus delalandi (Cuvier and Valenciennes)

One from Mazatlan, Mexico, December 7, 1931. Length 73 mm. Thirty-three from Espiritu Santo Island, Mexico, February 18, 1932. Length 37-89 mm. One from La Plata Island, Ecuador, February 10,

1934. Length 25 mm. One from Cabita Bay, Colombia, February 13, 1934. Length 46 mm. Five from Jicarita Island, Panama, February 20, 1934. Length 25-55 mm. Color greenish, banded and spotted with black. Tentacles on neck, over eye, and at nostril. Dorsal notched.

Malacoctenus zonogaster Heller and Snodgrass

One from Black Beach Anchorage, Charles Island, Galapagos, January 14, 1934. Length 75 mm. Anterior dorsal spine longest. Color greenish with 7 dark double bands over body. Head variegated.

Blenniidae Blenny

Hypsoblennius striatus (Steindachner)

Two from Tangola-Tangola Bay, Mexico, February 28, 1934. Length 30-32 mm. These proved to be a male and female.

Rupiscirtes atlanticus (Cuvier and Valenciennes)

Nine from Mazatlan, Mexico, December 7, 1931. Length 55-67 mm. Six from Sihuatanejo, Mexico, December 11, 1931. Length 55-60 mm. One from Port Utria, Colombia, February 15, 1934. Length 93 mm. Color uniform bluish, the fins darker, except caudal which is whitish on its outer margin. A round black spot just posterior of eye. Posterior canines large.

Ophioblennius steindachneri Jordan and Evermann

One from Sihuatanejo, Mexico, December 12, 1931. Length 93 mm. Golden brown in color with a dark ocellated spot behind eye. No black band on caudal base.

Ophioblennius lanieri, new species

Plate 4, Fig. 4

Holotype.—Calif. Acad. Sci. No. 5743.*Type locality*.—One specimen from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 45 mm.

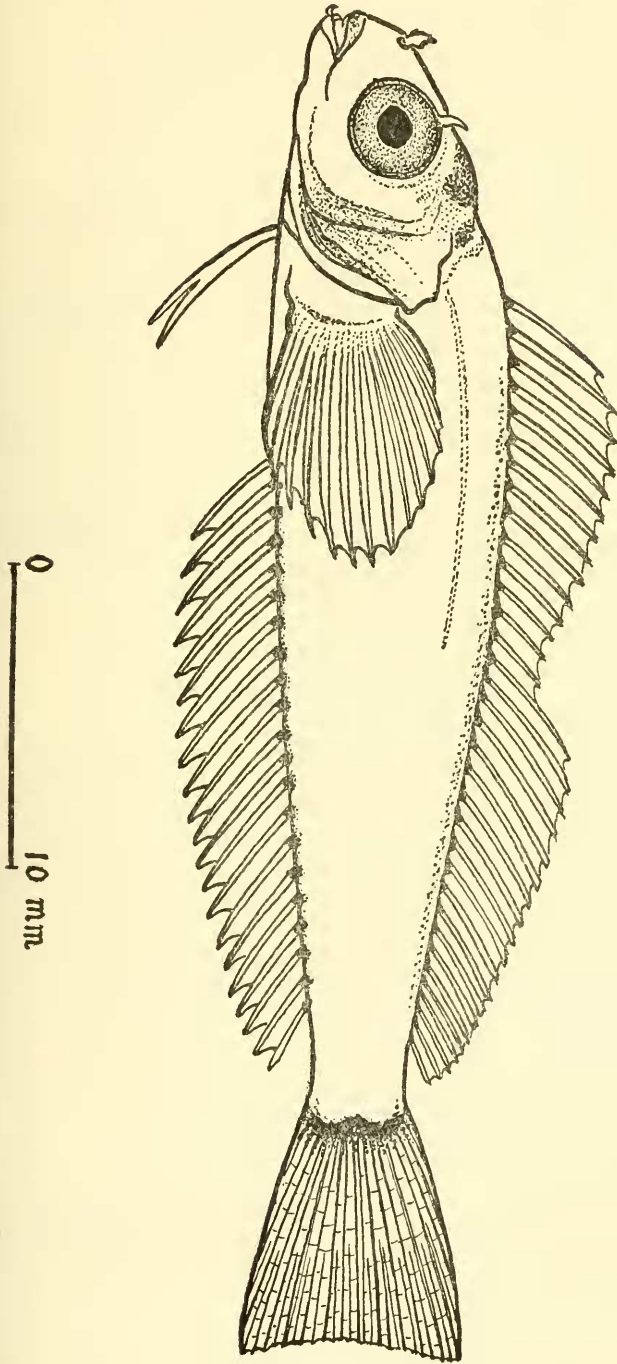
Body compressed, scaleless, a short lateral line over pectoral fin. Snout short, deep, and strongly curved. Mouth small, the lower jaw with 4 large recurved canines which project, the posterior ones almost at right angles to the jaw. Upper jaw with canines, which, however, do not project, small teeth posterior to these canines. Eye large, 3 in length of head, its diameter $\frac{1}{3}$ greater than length of snout. Gill membranes united and free from the isthmus. Dorsal X, 24, the fin long, slightly lower near the center; anal 21. Caudal lunate, not united to dorsal or anal. Pectoral with strong muscular base, the fin equal in length to the distance from anterior nostril to posterior margin of opercle. Ventrals of 2 rays, equal in length to the distance from pupil to the posterior margin of the opercle. A flaplike tentacle at anterior nostril, a simple tentacle over the eye. Color in alcohol, yellowish white with a narrow distinct black band around base of caudal. No black ocellus back of eye. Named for Robert Lanier, aquarist.

Spinoblennius spiniger Herre

One from Tagus Cove, Albemarle Island, Galapagos, January 13, 1934. Length 20 mm. No scales. A boney plate covering the top of head. A prominent spine at angle of preopercle.

Petrocirtes belanskei Boranger

One from Tagus Cove, Albemarle Island, Galapagos, January 12, 1934. Length 44 mm. A wide black stripe on middle of body from snout to caudal, and alternating black and white bars on dorsal and anal.



OPHIOBLENNIUS LANIERI

Chaenopsidae Eel-like Blennies***Stathmonotus culebrai***, new species

Plate 5, Fig. 5

Holotype.—Calif. Acad. Sci. No. 5745.*Type locality*.—One specimen from Port Culebra, Costa Rica, February 24, 1934. Length 30 mm.

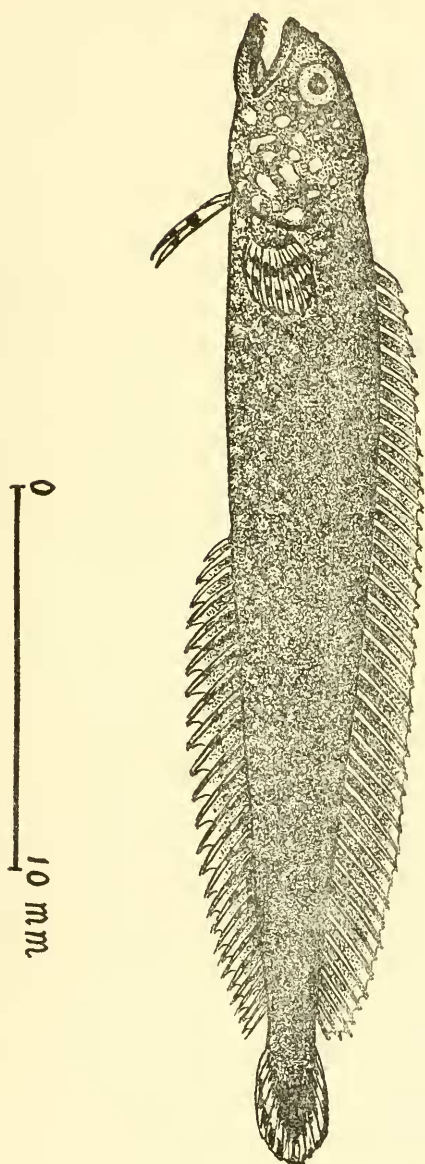
Head 5, depth 7 into standard length. Dorsal XLII; anal II, 24. No scales or filaments. No lateral line. Caudal distinct. Gill membranes broadly united and free of isthmus. Mouth oblique. Teeth short, stout, and sharp pointed, in 2 rows in upper jaw and on front of lower jaw. Eye large, about equal to snout. Ventrals jugular with 2 rays and a spine. Pectorals 2.5 in head. Origin of anal on a line with 16th dorsal spine. Origin of dorsal on a line with mid-length of pectorals. Color in alcohol dark brown, almost black, with white spots on head; these are round and about the size of the pupil. Pectorals and ventrals with 3 white bands. Dorsal and anal with a narrow margin of white.

Cerdalidae Elongate Blennies*Cerdale bilineatus* Clark

One from Seymour Island, Galapagos, January 15, 1939. Length 47 mm. An elongated eel-like blenny distinguished by the 3 black stripes of about equal width from the head to caudal; these are as follows: one from snout to base of caudal over the back, one on each side from tip of lower jaw to tip of caudal fin. The body color is usually a bluish white. This species is closely related to *Petrocirtus rhinorhynchus* Bleeker. Our specimen, however, has the head 9.30 and the depth 13 into standard length. There are no scales or filaments. The teeth are rounded and directed backwards.

Brotulidae Brotula*Ogilbia ventralis* (Gill)

One from Seymour Island, Galapagos, January 14, 1932. Length 50 mm. Uniform yellowish white. No barbules. Small teeth in bands. Eye small. Caudal entire.



STATHMONOTUS CULEBRAI

Ophidiidae Cusk Eels*Lepophidium prorates* (Jordan and Bollman)

Two from Port Utria, Colombia, February 15, 1934. Length 57-80 mm. These specimens have the dorsal and anal margined with black.

Batrachoididae Stargazers*Porichthys margaritatus* (Richardson)

One from White Friars Islands, Mexico, February 2, 1934. Length 63 mm. Two from La Libertad, Ecuador, February 9, 1934. Length 35-45 mm. Five from Cabita Bay, Colombia, February 13, 1934. Length 25-28 mm. Three from Port Utria, Colombia, February 15, 1934. Length 48-64 mm. Two from Port Culebra, Costa Rica, February 24, 1934. Length 24-29 mm. One from Tenacatita, Mexico, March 4, 1934. Length 43 mm. Color silvery with 8 dark bands over the back. Caudal not united with anal. The 3rd lateral line extends to or beyond the posterior of anal fin.

Gobiesocidae Clingfish*Gobiesox adustus* Jordan and Gilbert

Eight from Port Utria, Colombia, February 15, 1934. Length 30-40 mm. Dorsal 9; anal 7. Teeth round, pointed. Color brown, with indistinct darker markings. A light band on caudal peduncle.

Gobiesox poecilophthalmus Jenyns

Four from Black Beach Anchorage, Charles Island, Galapagos, January 14, 1934. Length 38-45 mm. Nine from Albemarle Island, Galapagos, January 13, 1934. Length 28-36 mm. Dorsal 7; anal 7. Incisor teeth with smooth edge. Body banded and with 2 or more black spots just back from the head.

Gobiesox rhodospilus Günther

Eight from Jicarita Island, Panama, February 20, 1934. Length 24-43 mm.

Balistidae Trigger Fish*Sufflamen verres* (Gilbert and Starks)

Four from Mazatlan, Mexico, December 7, 1931. Length 69-91 mm. One from Sihuatanejo, Mexico, December 11, 1931. Length 51 mm.

Melichthys radula (Solander)

One from Cocos Island, February 3, 1932. Length 215 mm. Color jet black with a narrow bluish white line at base of dorsal and anal.

Tetraodontidae Puffers*Sphoeroides angusticeps* (Jenyns)

One from Espiritu Santo Island, Mexico, February 18, 1932. Length 229 mm. Distinguished by the small white spots over the body.

Sphoeroides lagocephalus (Linnaeus)

One from Tagus Cove, Albemarle Island, Galapagos, January 5, 1932. Length 355 mm.

Cheilichthys annulatus (Jenyns)

One from Tenacatita, Mexico, December 10, 1931. Length 69 mm. Two from Bahia Honda, Panama, December 21, 1931. Length 189-223 mm. Three from Post Office Bay, Charles Island, Galapagos, January 3, 1932. Length 78-220 mm. One from Port Culebra, Costa Rica, February 24, 1934. Length 43 mm. One from Petatlan Bay, Mexico, March 4, 1934. Length 23 mm. Color greenish above, white below, the back marked by dark lines into large rings or spots.

Canthigasteridae Sharp-nosed Puffers*Canthigaster punctatissimus* (Günther)

One from Espiritu Santo Island, Mexico, February 23, 1932. Length 66 mm. One from Chatham Island, Galapagos, December 31, 1931. Length 64 mm. One from Tower Island, Galapagos, January 22, 1932. Length 52 mm. One from Petatlan Bay, Mexico, March 3, 1934. Length 21 mm. Back elevated, snout long and sharp. Color grayish with round whitish spots on the sides.

Diodontidae Porcupine Fish*Diodon hystrix* Linnaeus

One from Sihuatanejo, Mexico, December 11, 1931. Length 289 mm.

Diodon holacanthus Linnaeus

One from Espiritu Santo Island, Mexico, February 23, 1932. Length 139 mm. In this species the frontal spines are longer than the postpectoral

ones. A black blotch behind pectorals, the back marked with dark spots and blotches.

Antennaridae Frogfishes

Antennarius sanguineus Gill

One from Port Culebra, Costa Rica, February 24, 1934. Length 15 mm. One from Lat. $0^{\circ} 55' S.$, Long. $90^{\circ} 30' W.$, at a depth of 50 fathoms, January 26, 1934. Bait less in length than the 2nd spine. A large black ocellus at the base of the longest dorsal ray. Color brownish, lighter below, some indistinct dark spots below the 3rd dorsal spine.