

THE FISHES OBTAINED BY THE PINCHOT SOUTH SEAS EXPEDITION OF 1929, WITH DESCRIPTION OF ONE NEW GENUS AND THREE NEW SPECIES

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The fishes reported upon in this paper form the collection obtained by Gov. Gifford Pinchot's expedition of 1929 to the South Seas. Briefly, the course of this expedition was across the Caribbean Sea, through the Canal Zone, thence to Cocos Island and the Galapagos and Marquesas Groups, and finally to Tahiti, Society Islands. Most of the fishes were obtained in the Galapagos and Marquesas Groups, largely through Dr. A. K. Fisher, of the United States Biological Survey. Dr. Henry A. Pilsbry, of the Academy of Natural Sciences of Philadelphia, also accompanied the expedition and obtained a number of fishes forwarded to Philadelphia. In the following pages I have mentioned these materials as in the academy, as it may be understood that otherwise the specimens are in the United States National Museum.

The collections include 69 determined species, many of which are interesting or valuable records for distribution. The following are described as new: *Benthosema pinchoti*, new species; *Ophioblennius pinchoti*, new species; *Giffordella*, new genus (Blenniidae); *Giffordella corneliae*, new species.

Family EULAMIIDAE

EULAMIA GALAPAGENSIS (Snodgrass and Heller)

One fine young example, 565 mm. long, an embryo from a female 2,592 mm. long, taken in Chatham Bay, Cocos Island, June, 1929.¹ Of the large female, portions of the left pectoral fin, upper teeth, and piece of skin are preserved. The teeth are broadly triangular, their outer edges slightly concave, and all edges finely serrate.

¹ All dates herein are 1929.

Another example, evidently the present species, taken from Conway Bay, Indefatigable Island, Galapagos, June 24. Represented by a section of jaw with four teeth, tip of pectoral, and portion of skin, and agrees with the Chatham Bay material.

A third specimen taken in Wreck Bay, Chatham Island, July 6. Of the large female, portions of the left pectoral fin, upper preserved.

EULAMIA sp.?

From 70 miles south of Panama, August 15. Piece of fin, teeth, and other parts.

Family MOBULIDAE

MANTA BIROSTRIS (Walbaum)

The following items, all portions or materials from several of these great rays, are preserved; detailed observations under the name "sea bats" are well set forth in Governor Pinchot's recent volume on the expedition, To the South Seas:

Tail without any trace of spine, piece of skin, and other parts. Length of tail, 1,400 mm. All from Ua Huka Island, Marquesas Islands, September 20.

Three portions from specimen taken at Ua Huka, September 25. Head with rolled cephalic fin 350 mm. long, directed forward. Portion of end of pectoral fin. Short ventral fin with clasper, latter not reaching hind fin edge.

Also tail and portions of skin of example from Ua Huka, September 25. With this, bottle of stomach contents, mostly necton or copepod crustaceans.

Piece of skin of example caught at entrance to Obi Tufa Bay, Eiro Island, Marquesas Islands.

Jaws of a large example as dry preparation, without exact data. Upper edentulous jaw 920 mm. wide. Lower jaw 1,200 mm. wide, dentary area 610 mm. as measured over surface. Teeth estimated in 416 transverse rows, in which there are 7 to 10 short truncate or obtuse small teeth, the crown of each from nearly level to convex.

In the academy, gill arches from a large example from Shavay Bay, Ua Huka, Marquesas Islands, September 21.

Family CLUPEIDAE

HARENGULA PUNCTATA (Rüppell)

One in the academy, 74 mm. long, from Taiohae, Nukuhiva, Marquesas Islands. Taken in tide pools, September 26. Maxillary reaches one-fourth in eye. Gill rakers 23+35, finely lanceolate.

Scales 40 in median lateral series to caudal base, adherent; 12 transversely. Abdominal serrae 16+10. A. II, 18, I. Back brilliant steel blue to violet-black, sides and lower surfaces bright silvery white. Iris white. Fins pale, front terminal part of dorsal dark gray. Caudal with lobes grayish terminally.

One in the National Museum, same data as above, 39 mm.

Not previously reported from the Marquesas.

OPISTHONEMA LIBERTATIS (Günther)

Three examples, 158 to 160 mm., from Conway Bay, Indefatigable Island, Galapagos, June 24.

Family CONGRIDAE

LEPTOCEPHALUS sp.?

Two larval eels, 61 to 65 mm., in the academy, taken at the surface of Gardner Bay, Hood Island, Galapagos, June 30.

Three larval eels, 102 to 138 mm., in the National Museum from Black Beach Anchorage, Charles Island, Galapagos, June 27.

Family OPHICHTHYIDAE

MYRICHTHYS MACULOSUS (Cuvier)

One from the gullet of a cormorant at Narborough Island, Galapagos Islands, obtained by Dr. A. K. Fisher, August 25. This a damaged specimen 440 mm. long.

LETHARCHUS PACIFICUS Osburn and Nichols

Two, 204 to 290 mm. long, from Gardner Bay, Hood Island, June 30. Also one in the academy, same data, 140 mm.

CALLECHELYS MARMORATUS (Bleeker)

One, 310 mm. long, from Black Beach Anchorage, Charles Island, Galapagos, June 27. Interesting as new for the Galapagos. Its former distribution from Mauritius to the East Indies and Hawaii.

Family ECHIDNIDAE

LYCODONTIS NUDIVOMER (Günther)

One, 600 mm. long, from Ua Huka, Marquesas Islands, September 26. Teeth all entire in jaws, though broad, well compressed, and uniserial. Palate toothless, except short depressible tooth anteriorly.

Coloration largely blackish brown, with imperfect, variable, whitish reticulating lines, most distinct over under surfaces. The pattern of coloration somewhat approaches *Gymnothorax hilonis* Jordan and Evermann, and again it also suggests that of *Lycodontis undulata* (Lacépède).

Family SYNODONTIDAE

SYNODUS JAPONICUS (Houttuyn)

Five, 55 to 60 mm., from Black Beach Anchorage, Charles Island, Galapagos, June 27.

In the academy, five from the surface of Gardner Bay, Hood Island, June 30, and one from Charles Island, June 27, all in Galapagos Group. Former 23 to 60 mm., latter 59 mm. All are scaleless, with 10 dark saddles on back, the last at caudal base.

Fourteen, 28 to 40 mm., in the National Museum, from Nukuhiva, Marquesas Islands, September 25.

Family MYCTOPHIDAE

DIAPHUS AGASSIZII Gilbert

In the academy, 86 examples, 60 to 74 mm., from Taiohae, Nukuhiva, Marquesas Islands. Obtained by light over side of boat at night, September 26.

In the National Museum, 72 examples, 57 to 72 mm., September 29, also from Taiohae.

BENTHOSEMA PINCHOTI, new species

FIGURE 1

Description.—Depth $3\frac{7}{8}$; head $2\frac{7}{8}$, width $2\frac{1}{5}$. Snout $7\frac{1}{5}$ in head measured from snout tip; eye $2\frac{4}{5}$, greatly exceeds snout or interorbital; maxillary reaches little beyond eye, terminal expansion one-third of eye, well sheathed above by cheek, length $1\frac{2}{3}$ in head from snout tip; teeth in jaws minutely villiform, in narrow bands, visible with closed jaws; mandible but slightly protrudes; interorbital $4\frac{1}{3}$ in head from snout tip, nearly level. Gill rakers about 6+21, slender, lanceolate, $1\frac{2}{5}$ in eye or twice gill filaments.

Anteorbital luminous organ veiled, though about one-half pupil; mandibular photophores veiled, 3 on each mandibular ramus, 2 operculars close behind lower opercular edge and upper double; pectorals 5, first veiled by gill covers; 2 subpectorals, anterior veiled by gill cover and upper at lower pectoral fin base; suprapectoral high, at inception of lateral line; upper postpectoral slightly above level of pectoral origin though close below lateral line; front supraventral below upper subpectoral, postero-supraventral higher, level with first supraanal; 3 ventrals; 6 anteroanals, then 4 postero-

anals; 2 supraanals with uppermost on lateral line; 1 posterolateral on lateral line; 2 precaudals, posterior close below lateral line.

Scales mostly all fallen, about 28 (pockets) in lateral line to caudal base and 2 more on latter; 3 above, 4 below.

D. II, 12, first ray $1\frac{3}{5}$ in total head length, adipose fin slender, midway between hind dorsal basal end and caudal base, length $2\frac{1}{3}$ in eye; A. II, 16, first branched ray $2\frac{1}{5}$ in total head length; caudal (damaged) estimated about $1\frac{1}{4}$; least depth of caudal peduncle 3; pectoral $1\frac{3}{5}$, rays 16; ventral $2\frac{4}{5}$, rays 8.

Scales silvery, with metallic steel-blue reflections. Iris silvery white. Body and scale pockets where scales have fallen mostly dusky to blackish. Luminous organs silvery white. Fins all whitish, adjacent body basally blackish.

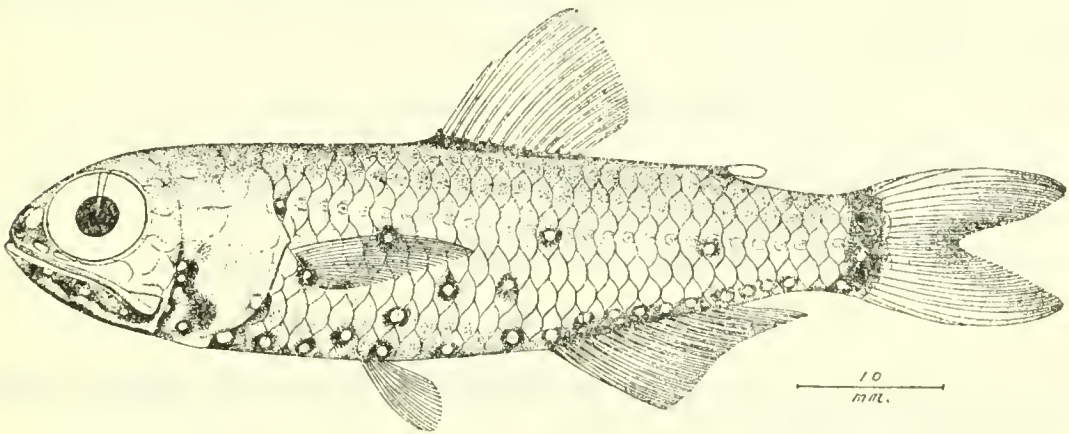


FIGURE 1.—*Benthosema pinchoti*, new species. U. S. N. M. No. 91823 (type)

Type.—U.S.N.M. No. 91823, collected near light, Nukuhiva, Marquesas Islands. September 25, 1929. Length, 71 mm.

Diagnosis.—Distinguished in its genus chiefly by the presence of the suprapectoral photophore at the origin of the lateral line.

Named for Gov. Gifford Pinchot.

Family POECILIIDAE

GAMBUSIA NICARAGUENSIS Günther

Seven, 21 to 49 mm., Colon, Panama.

GAMBUSIA CAYMANENSIS Regan

Eight, 10 to 44 mm., Grand Cayman, West Indies, April 17.

Family BELONIDAE

STRONGYLURA INDICA (Le Sueur)

One caught in entrance to Taipi Bay, Nukuhiva, Marquesas Islands, September 26. Head 315 mm. long.

Family HEMIRAMPHIDAE

HEMIRAMPHUS UNIFASCIATUS Ranzani

Two, in academy, 120? to 200 mm., from Charles Island, Galapagos. Taken at light at anchorage. Lower gill rakers, 19 to 21.

HEMIRAMPHUS ROBERTI Valenciennes

Two, 137 to 154 mm., from Black Beach Anchorage, Charles Island, Galapagos, June. Depth from mandible tip 9; mandible tip from upper jaw tip longer than rest of head. D. I, 14 or 13; A. I, 15.

HEMIRAMPHUS PACIFICUS Steindachner

One, about 71 mm. long, from about light, Nukuhiva, Marquesas Islands, September 25.

HEMIRAMPHUS BRASILIENSIS (Linnaeus)

One, 368 mm., from Hivaoa, Marquesas Islands, September 12.

Family EXOCOETIDAE

FODIATOR ACUTUS (Valenciennes)

One, about 144 mm., from Indefatigable Island, Galapagos, June 21. New for the Galapagos Group.

EXOCOETUS VOLITANS Linnaeus

One, 248 mm. long, from 1,000 miles west of Galapagos Islands, latitude 3° S., longitude 108° W., September 1.

One, 193 mm., from latitude 2° 10' N., longitude 86° W.

One, 188 mm., from 100 miles east of Tahiti, Society Islands, October 9.

CYPSELURUS RUBESCENS (Rafinesque)

One, 285 mm., from the Pacific, latitude 7° S., longitude 124° W., September 7.

CYPSELURUS ATRISIGNIS Jenkins

One, 381 mm., from north of Tuamotu Islands, September 30. Predorsal scales 38 from occiput to dorsal. D. I, 11, I; A. I, 10, I.

CYPSELURUS BAHIIENSIS (Ranzani)

One, 405 mm., from Cocos Island, June 6. D. I, 13, I; A. I, 9, I.

One in the academy, 385 mm., from Chatham Bay, Cocos Island. Same fin formula as above specimen.

CYPSELURUS CALLOPTERUS (Günther)

One, about 270 mm., from 90 miles south of Panama, July 17. D. 11, 11, 1; A. 1, 6, 1, both fins uniformly pale. Pectoral dark gray, thickly marked with round black spots, none larger than pupil. Ventral pale or whitish, grayish on outer half terminally, this area also with about four rows of black spots.

Family SYNGNATHIDAE

HIPPOCAMPUS STYLIFER Jordan and Gilbert

One, 48 mm., from Key West, Fla. Rings with quite numerous and elongate points or spines.

COELONOTUS PLATYRHYNCHUS (Duméril)

FIGURE 2

Description.—Depth $23\frac{1}{2}$ to $24\frac{1}{4}$; head 8 to 9, width $3\frac{1}{2}$ to $3\frac{3}{5}$. Snout $2\frac{1}{5}$ to $2\frac{1}{4}$ in head from snout tip, width $1\frac{3}{5}$ to $1\frac{2}{3}$ its length; eye 5 to $5\frac{1}{5}$ in head from snout tip, $2\frac{1}{5}$ to $2\frac{1}{4}$ in snout, little greater than interorbital; mouth with very short cleft, broad, superior terminally; interorbital $5\frac{3}{4}$ to 6 in head from snout tip, nearly level. Gill opening small.

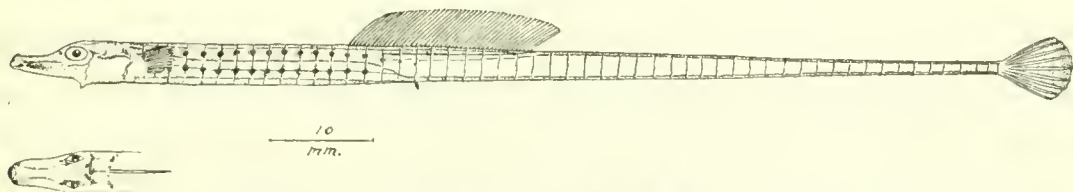


FIGURE 2.—*Coelonotus platyrhynchus* (Duméril)

Rings 17 or 18 + 35 to 37. Upper keel of trunk and tail continuous and joined with auxiliary short keel starting on last trunk ring superiorly and finally approximating opposite base of last dorsal ray; median lateral trunk keel slopes down on last 3 trunk rings or opposite front of dorsal and continues on tail as lower caudal keel; lower trunk keel approximates slightly with its fellow at vent to buttress abdominal brood organ, which is well marked in male.

D. 40 to 45, extends on 4 trunk rings and 7 caudal rings, higher than body depth below or fin height $2\frac{1}{5}$ in head; caudal fanlike, $1\frac{3}{5}$; pectoral 3 to 4, rays 15 or 16; anal very small, about half of eye.

Pale brown, below to uniform whitish. Iris gray, evidently silvery in life. At junction of each trunk ring above and below median lateral keel a small black ocellus, thus forming 2 lateral rows. Caudal brownish, other fins transparent. Black spots variable as in one example several before and behind pectoral base.

Three from Ua Huka, Marquesas Islands. September 23. Length, 105 to 108 mm.

Originally described from Nukuhiva in 1870, this species has not since been obtained there. Duncker has more recently reported it from New Pomerania in the Bismarck Archipelago. These are the only localities from which it is known.

Family MUGILIDAE

MUGIL THOBURNI Jordan and Evermann

From tide pool at Eiao, Marquesas Islands, 67 examples, 39 to 60 mm. long, September 28. No adipose eyelids. Scales 38 in median lateral series to caudal base and 4 more on latter. Soft dorsal and anal largely with small scales. Pectoral with pointed axillary scale. A. III, 9. Back slate gray, iris and below silvery white. Dorsals and caudal dark gray, other fins paler. Pectoral base about origin dusky.

Three, 19 or 20 mm., in National Museum, from Hivaoa, Marquesas, September 13, probably this species.

Not previously reported from Oceania.

MYXUS HARENGUS Günther

One, 53 mm., from Black Beach Anchorage, Charles Island, Galapagos Group, June 27. Scales 44 in lateral series to caudal base and 3 more on latter. D. IV-I, 9, 1; A. II, 10, 1. Back neutral dusky. Sides and lower surface, including iris, silvery white. Dorsals and caudal grayish. Pectoral pale, with dusky base, black in axilla. Lower fins white.

NEOMYXUS CHAPTALII (Eydoux and Souleyet)

Three, 100 to 123 mm., Marquesas Islands, September.

Three, 115 to 121 mm., Ua Huka, Marquesas Islands, September 24.

Two, 100 to 120 mm., Ua Huka, September 24.

Three, 42 to 135 mm., Taiohae tide pools, Nukuhiva, Marquesas Islands, September 26, in the academy.

CESTRAEUS PLICATILIS Valenciennes

One, 39 mm. (caudal broken), from Taiohae, Nukuhiva, Marquesas Islands, September 26. Back generally metallic blue-black, sides and lower surface silvery white, with steel-blue shade. Iris and fins all whitish. Spinous dorsal with dusky shade forward. Bases of soft dorsal and caudal slate black.

Family SCOMBRIDAE

EUTHYNNUS PELAMIS (Linnaeus)

One, 478 mm., from off Papeete, Tahiti, October 19.

THUNNUS THYNNUS (Linnaeus)

One, from near Obi, Tufa Bay, Eiao, Marquesas Islands, September 28. Head 366 mm. long. Snout $2\frac{2}{3}$ in head; eye $6\frac{2}{3}$, 3 in snout, 3 in interorbital; maxillary reaches opposite $\frac{2}{3}$ of eye, expansion $1\frac{1}{2}$ in eye, with groove at lower expansion angle $1\frac{1}{2}$ in expansion; maxillary length 2 in head.

One, from Ua Huka, Tufa Bay, September 22. Pieces of body.

One from near Obi, Tufa Bay, September 28. Pieces of body.

Family CARANGIDAE

CARANX SEXFASCIATUS Quoy and Gaimard

Two in the academy, 129 to 148 mm., from Conway Bay, Indefatigable Island, Galapagos Group, June 24.

Two in National Museum, 145 and 128 mm. long. Same data.

One, 120 mm., from Cocos Island, June 6.

Four, 88 to 110 mm., from Hivaoa, Marquesas Group, September 13.

CARANX LATUS Agassiz

One in the academy, 44 mm., from Key West, Fla., April 10.

A single example, 42 mm. long, in the National Museum. Same data as above.

VOMER SETIPINNIS (Mitchill)

One in the academy, 183 mm., from Balboa, Canal Zone, August 8.

Family DULEIDAE

DULES MARGINATUS Cuvier

Scales about 35 or 36 in lateral line to caudal base. D. X, 11. A. III, 11. Generally brilliant silvery white, back with leaden hue. Iris silvery white. Fins all whitish, cluster of blackish dots at caudal base, especially medially. Caudal terminally with some gray dots. Five, 28 to 30 mm., Nukuhiva, Marquesas Islands. September 25.

Family SERRANIDAE

SERRANUS MERRA (Bloch)

One example, 66 mm., from Ua Huka, Marquesas Group, September 24.

MYCTEROPERCA OLFA (Jenyns)

One, 690 mm., from Port Charles Bay, Charles Island, Galapagos Group, June 28; yellow.

Family LUTJANIDAE

LUTJANUS MONOSTIGMA (Cuvier)

Four examples, 94 to 160 mm., from tide pools, Ua Huka, Marquesas Islands, September 24. All have the black blotch on the lateral line, opposite front of soft dorsal, smaller than eye.

One in the academy, 188 mm. long, from Taiohae, Nukuhiva, Marquesas Islands, in tide pools, September 26.

XENOCYS JESSIAE Jordan and Bollman

One example, 220 mm., from Black Beach Anchorage, Galapagos Group, June 27.

Two, 190 to 210 mm., from Charles Island, Galapagos Group, in the academy, June 17.

Family MULLIDAE

UPENEUS VITTATUS (Forskål)

Six, 140 to 182 mm., from Hivaoa, Marquesas Islands.

In the academy, 4 examples, 150 to 175 mm., from stream at Atuona Bay. Hivaoa, September 12.

Family GERRIDAE

EUCINOSTOMUS CALIFORNIENSIS (Gill)

One example, 144 mm., from Conway Bay, Indefatigable Island, Galapagos Group, June 24.

Family HEPATIDAE

HEPATUS TRIOSTEGUS (Linnaeus)

Fourteen, 65 to 110 mm., from Ua Huka, Marquesas Islands, September 24.

One, 78 mm., from Taiohae, Nukuhiva, Marquesas Islands, September 26, in the academy.

NASO EOUME (Lesson)

One example, head 100 mm. long, purchased at Hanamui, Ua Huka, Marquesas Islands, September 25.

Family POMACENTRIDAE

ABUDEFDUF SAXATILIS (Linnaeus)

One, 50 mm., from Ua Huka, Marquesas Islands, September 24.

ABUDEFDUF SORDIDUS (Forskål)

Three, 62 to 84 mm., Marquesas Islands, September.

Four, 50 to 76 mm., from Ua Huka, Marquesas Group, September 24.

Two examples, 21 or 22 mm., from Eiao, Marquesas Group, September 28.

Five, in the academy, from tide pools at Taiohae, Nukuhiva, Marquesas Group, September 26. Length, 55 to 85 mm.

ABUDEFDUF UNIOCELLATUS (Quoy and Gaimard)

One, 28 mm., from Ua Huka, Marquesas Group, September 24.

One, in the academy, 21 mm. long, from Hivaoa, Marquesas Island, September 12.

POMACENTRUS LEUCORUS Gilbert

Eight examples, 18 or 19 mm. long, from Black Beach Anchorage, Charles Island, Galapagos.

POMACENTRUS NIGRICANS (Lacépède)

Seventeen, 106 to 125 mm., from Ua Huka, Marquesas Islands, in tide pool, September 24.

One, in the academy, 115 mm. long, from Taiohae, Marquesas Group, September 26.

POMACENTRUS ARCTIFRONS Snodgrass and Heller

Three, in the academy, 155 to 160 mm., from tide pool at Tower Island, Galapagos Group, June 15. In alcohol blackish, paler below. Caudal, caudal peduncle, soft dorsal, and anal posteriorly more or less olivaceous, latter fins each with neutral or blackish submarginal band. Lips pale. Iris neutral gray.

Family LABRIDAE

EPIBULUS INSIDIATOR (Pallas)

Lower left mandibular ramus, length 145 mm. to end of lower branch, from Fakarava, Tuamotu Group, October 2.

THALASSOMA UMBROSTYGMA (Rüppell)

One, 47 mm. long, Ua Huka, Marquesas Group, September 24.

Family SCORPAENIDAE

SCORPAENA HISTRIO Jenyns

One, 21 mm., from Black Beach Anchorage, Charles Island, Galapagos Islands, June 27.

Family ELEOTRIDAE

ELEOTRIS FUSCA (Schneider)

One, 150 mm., Hivaoa, Marquesas Group, September 12.

Four, 62 to 95 mm., from tidal stream, Fatuhiva, Marquesas Group, September 14.

ELEOTRIS TUBULARIS Snodgrass and Heller

One, 78 mm., from Cocos Island. Very similar to *Eleotris fusca*, perhaps not distinct.

Family GOBIIDAE

COTYLOPUS COCOENSIS Heller and Snodgrass

One from Cocos Island. D. VI, I, 10. A. I, 10. Teeth greatly damaged, apparently weakly and imperfectly tridentate, at least in a smaller example, where they appear swollen somewhat at the juncture of each lateral spur forming the tridentation, though ends of most apparently worn down.

GOBIUS ORNATUS Rüppell

Three examples, 18 to 61 mm., from tide pool at Eiao, Marquesas Group, September 28.

Family ECHENEIDAE

ECHENEIS REMORA (Linnaeus)

One, 148 mm. long, from large *Manta birostris*, taken at Tower Island, Galapagos Group, June 16.

One, 116 mm., from off *Eulamia galapagensis*, taken at Cocos Island, June 10. Both this and preceding show 17 lamellae in the cephalic disk.

ECHENEIS ALBESCENS Schlegel

One, 250 mm., from the stomach of a large *Manta birostris* taken in Shavay Bay, Ua Huka, Marquesas Group, September 20.

One, 358 mm., from the stomach of *Manta birostris*, alive and had been seen in gills, Ua Huka, September 20.

One, 230 mm., from Tower Island, Galapagos Group, June 16. Though two were originally taken from a large *Manta birostris* only this one was preserved.

One, 111 mm., from *Manta birostris* at Shavay Bay, Ua Huka, September 20.

One, in the academy, 270 mm. long, from the mouth of *Manta birostris* but slipped into the stomach, Shavay Bay, September 21. All the specimens show 13 lamellae in the cephalic disk.

Family BLENNIIDAE

RUNULA AZALEA Jordan and Bollman

Two, 46 to 48 mm., from Black Beach Anchorage, Charles Island, Galapagos Group, June 27.

Two, in the academy, 46 to 49 mm., at surface of Garden Bay, Hood Island, Galapagos Group, June 30.

Runula albolinea Nichols² is supposed to differ in coloration. The terminal dark band on the dorsal fin is said to be entire, not broken as blackish blotches. It was based on specimens 35 to 46 mm. in length.

OPHIOBLENNIUS PINCHOTI, new species

FIGURE 3

Description.—Depth 4 to $4\frac{1}{4}$; head $3\frac{1}{3}$ to $3\frac{3}{5}$, width 2 to $2\frac{1}{4}$. Snout $3\frac{1}{3}$ to $4\frac{2}{5}$ in head; eye 3 to $3\frac{1}{3}$, greater than snout or interorbital, subequal with snout with age; maxillary reaches $\frac{1}{3}$ to $\frac{2}{5}$ in eye, length 2 to $2\frac{4}{5}$ in head; 4 canines in front of each jaw, each greatly bent, curved or crooked and each outer lower one flaring outward; interorbital $3\frac{1}{5}$ to $3\frac{1}{2}$ in head, broadly convex. Gill opening forms broad free fold over isthmus.

Body scaleless. Lateral line incomplete, superior, only extends far as depressed pectoral.

D. XII, 22 or 23, notch dividing fins only about half their depth, fin height about half of head; A. II, 21 to 23, front rays little highest, about high as dorsal rays; caudal long as head, emarginate behind; least depth of caudal peduncle $3\frac{1}{3}$; pectoral but little shorter than head, rays 15; ventral $1\frac{1}{2}$ in head.

Uniform light straw brown. Top of head with dusky blotch, also dusky on upper lip. Iris gray, apparently silvery in life. Along base of each dorsal and anal spine or ray small blackish spot. Caudal with vertical blackish bar. Fins otherwise pale or transparent, with pale yellowish tinge basally to vertical fins.

Type.—U.S.N.M. No. 91819, collected at Black Beach Anchorage, Charles Island, Galapagos, June 27, 1929, by Dr. A. K. Fisher. Also 49 paratypes, same data. Length, 21 to 53 mm.

² Zoologica, vol. 5, no. 4, p. 64, fig. 11, 1924. Indefatigable Island, Galapagos.

Diagnosis.—Differs from *Ophioblennius steindachneri* Jordan and Evermann, from the west coast of Mexico, in the coloration. The mainland species has dark longitudinal stripes on the caudal fin and a round, intense dark ocellated spot behind the eye. The coloration of *Ophioblennius pinchoti* is, however, unique, in that there is a large blackish blotch on the cranium and a black transverse basal band on the caudal.

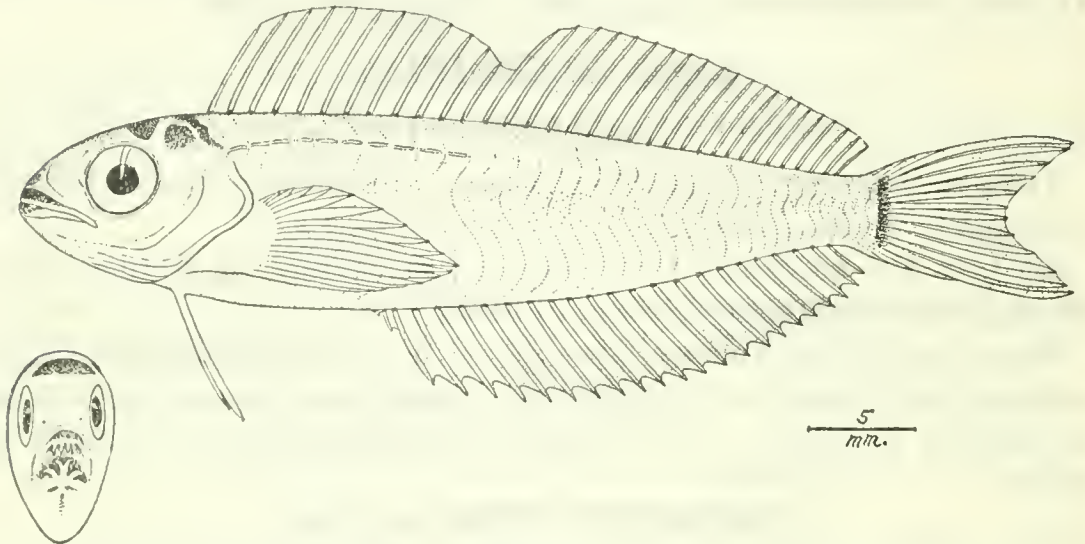


FIGURE 3.—*Ophioblennius pinchoti*, new species. U.S.N.M. No. 91819

GIFFORDELLA, new genus

Type species.—*Giffordella corneliae*, new species.

Diagnosis.—Differs from *Ophioblennius* in its entirely different physiognomy, also the lower teeth all flaring outward. Caudal truncate to slightly emarginate.

Named in slight appreciation to the Hon. Gifford Pinchot, governor of Pennsylvania, for his successful expedition to the South Seas.

GIFFORDELLA CORNELIAE, new species

FIGURE 4

Depth 4 to $4\frac{1}{8}$; head $3\frac{3}{4}$ to 4; width $1\frac{1}{4}$ to $1\frac{1}{3}$. Snout 3 to $3\frac{1}{2}$ in head; eye $2\frac{1}{3}$ to 3 in head, greater than snout to subequal with interorbital; maxillary reaches back $\frac{1}{5}$ to $\frac{1}{4}$ in eye length, $2\frac{4}{5}$ to $2\frac{7}{8}$ in head; teeth rather large, simple, conic, curved, uniserial in jaws and lower as 10 flaring outward each side; interorbital 3 to $3\frac{1}{2}$ in head, well convex. Gill opening large, extends forward about opposite hind eye edge, isthmus width about half eye.

Body scaleless. No flaps or tentacles. Lateral line not evident, side medianly with axial longitudinal impression.

D. 14, 14, fin height about two-thirds of head and divided by deep median notch, a little behind vertical of anal original; A. 14, each membrane notched terminally, fin height about one-half of head;

caudal slightly less than head, hind edge slightly emarginate; least depth of caudal peduncle 2 to $2\frac{2}{3}$ in head; pectoral slightly longer than head, lower median rays longest, reaches little beyond anal origin; ventral nearly long as head, of 2 simple rays.

Largely transparent brownish or colorless. Dark pigment spots on cranium. Iris silver gray to white.

Type.—U.S.N.M. No. 91821, collected near light, Nukuhiva, Marquesas Islands, September 25, 1929. Also 11 paratypes, same data, 16 to 22 mm.

Named for Mrs. Cornelia Bryce Pinchot, first lady of Pennsylvania.

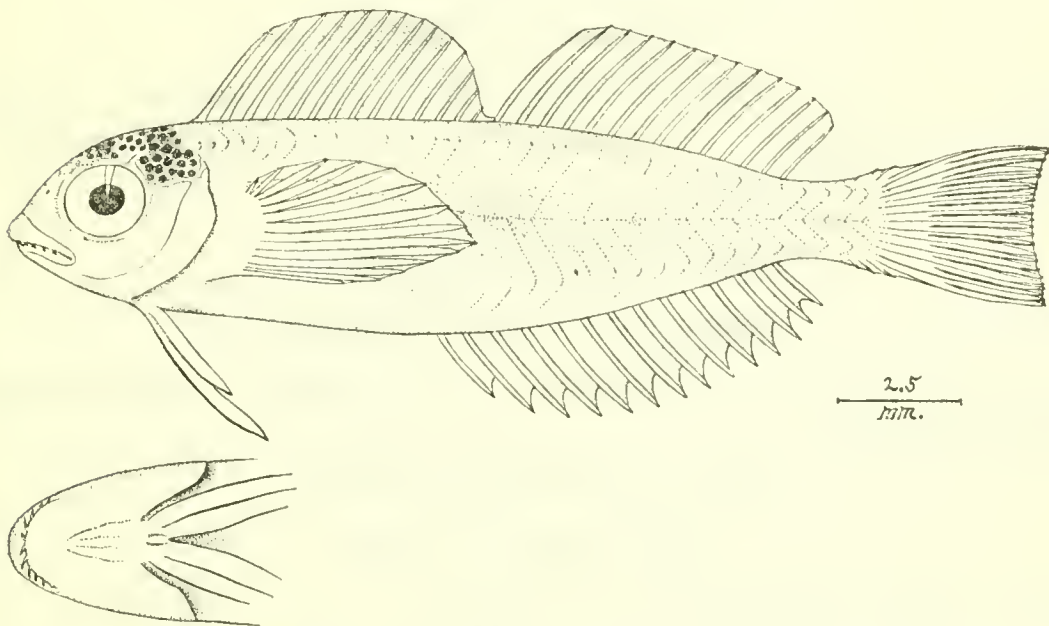


FIGURE 4.—*Giffordella corneliae*, new species. U.S.N.M. No. 91821

SALARIAS EDENTULUS (Schneider)

Three, 27 to 99 mm., Eiao, Marquesas Group, September 28.

Four, 45 to 122 mm., Ua Huka, Marquesas Group, September 24.

Two in the academy, 59 to 75 mm., Taiohae, Nukuhiva, Marquesas Group, September 26. Uniform, blackish.

SALARIAS MELEAGRIS Valenciennes

Four, 68 to 81 mm., Eiao, Marquesas Group, September 28. D. XIII, 21; A. 22. Upper lip with edge scarcely crenulate.

Family GOBIESOCIDAE

GOBIESOX POECILOPHTHALMOS Jenyns

Two in the academy, 87 to 106 mm. long, from Chatham Bay, Cocos Island. Found on stones in a stream. D. 7 or 8; A. 6.

One in the National Museum, 109 mm., from Cocos Island, June 6.

This species was based on a young example but 47 mm. long, from which most all the color had evidently faded. It is described as

"of a uniform very pale brown, or brownish white, without any markings whatever. The eyes were probably very brilliant in the living fish, the irides still showing traces of what seems to have been blue and golden pink." The fin rays are given as D. 7; A. 7.

Family MONACANTHIDAE

MONACANTHUS HISPIDUS (Linnaeus)

Two, 15 to 30 mm., from Key West, Fla., April 10.

Family OSTRACIONTIDAE

OSTRACION SEBAE Bleeker

One, 164 mm., from Maragneii, Toau Atoll, Tuamotu Group, October 5. Scattered white spots over top and sides of carapace, under surface uniform.

Family TETRODONTIDAE

SPHOEROIDES ANNULATUS (Jenyns)

One, 140 mm., from Conway Bay, Indefatigable Island, Galapagos Group, June 24.

Family ANTENNARIIDAE

HISTRIO HISTRIO (Linnaeus)

One, 44 mm., Key West, Fla., April 10.