FOWLER, H.W. (1939)-Zoological results of the Denison-Crockett South Pacific Expedition for the Academy of Natural Sciences of Philadelphia, 1937-1938. Part 3. The fishes. Proc. Acad. nat. Sci. Philad. 91: 77-96.

ZOOLOGICAL RESULTS OF THE DENISON-CROCKETT SOUTH PACIFIC EXPEDITION FOR THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1937-1938. PART III.—THE FISHES ¹

BY HENRY W. FOWLER

Curator of Fishes, The Academy of Natural Sciences of Philadelphia

The fishes obtained by this expedition are noteworthy in many ways. The specimens number 121 and are from 7 localities, chiefly in New Guinea. The species determined number 67, of which one described as new also represents a new genus. This I have dedicated to Mrs. Charis Crockett and Mr. Frederick Crockett, who organized the expedition in 1936. To them the Academy is indebted for the fine natural history collections secured.

To Mr. S. Van der Goot, the Resident of Sorong, grateful acknowledgement is also offered for his many kind services. To Mr. S. Dillon Ripley, as zoologist, credit is also due for his efficient field work. Mrs. Mildred Appel inked the accompanying drawing.

It is scarcely necessary to emphasize the rarity of New Guinea or Papuan fishes in collections, as they are few in America, and incomplete elsewhere. Most all are new to the Academy's museum, and as only 5 of the species are duplicated, they form a most valuable addition—the first New Guinea fishes we ever received. Details of the itinerary, with a map, will be published in a forthcoming paper in this series.

The references given in this paper are supplementary to my "Fishes of Oceania" 1928, and the two "Supplements" in 1931 and 1934, which otherwise form a complete faunal clue to the literature.

Off Galapagos Islands

Exocoetus volitans Linnaeus

Exocoetus volitans Fowler, Acad. Nat. Sci. Philadelphia, Monographs 2, Oct. 14, 1938, pp. 24, 252 (Albermarle I.), p. 65 (east of Marquesas), p. 217 (off Hawaii), p. 270.

One, 200 mm., off Galapagos, February 16, 1937. With large isopod crustacean attached subbasally on outer face of right pectoral.

Sainkedoek, New Guinea

A few very interesting fresh-water fishes were obtained from this locality. It is inland from the coast at Sausapor about 40 miles, in the drainage of the Samson River basin with a north-westward flow to the Pacific.

CHARISELLA new genus

Type.—Charisella fredericki new species.

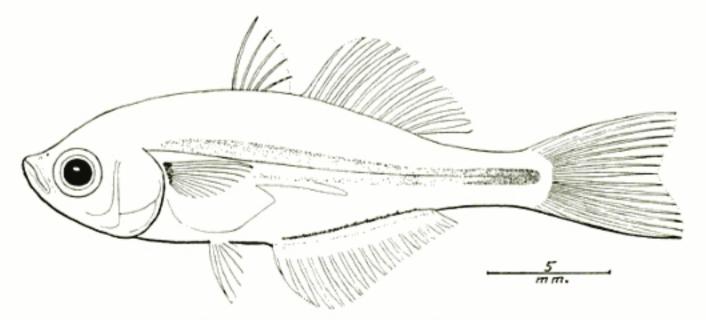
Body compressed, elongately ovate, trunk short, its length 2½ in tail. Head small, compressed, obtuse. Snout short. Eye very large, mostly in front ½ of head, close to but not entering upper profile of head. Mouth small, superiorly terminal. Single row of moderately small, very distinct, simple, close set, conic teeth in each jaw. Palate toothless. Interorbital broad. Scales rather large, cycloid, very caducous and most all fallen. Dorsals 2, first with 5 spines and second fin with 13 rays. Anal with spine and rays 17 or 18, base of fin longer than head. Paired fins small.

Apparently related to Pseudomugil Kner, but with much longer soft dorsal and anal and more advanced. Also greatly longer tail, thus falling within Weber and Beaufort's *Melanotaeniinae*. They differ however in having the general appearance or facies of *Pseudomugil*, but their scales are not especially regularly arranged. The long caudal peduncle is more that of *Pseudomugil*, likewise the projecting mandible with a superior mouth cleft. All Sainkedoek fishes here reported are Melanotaeniidae.

Charisella fredericki new species

Depth $3\frac{1}{3}$ to $3\frac{3}{5}$; head $3\frac{3}{5}$ to $3\frac{3}{3}$, width 2 to $2\frac{7}{5}$. Snout $3\frac{1}{2}$ to $4\frac{1}{2}$ in head from snout tip; eye $2\frac{7}{5}$ to 3, greatly exceeds short snout or interorbital; maxillary greatly inclined, reaches opposite front eye edge, narrow, length $2\frac{1}{5}$ to $2\frac{7}{5}$ in head, so front tip of snout level with upper edge or upper part of pupil; teeth in moderate number, rather even, curved; interorbital 3 to $3\frac{1}{4}$, low or slightly convex.

Scales 30 or 32 (pockets) in axial lateral series to caudal base and 4 or 5 more on latter; 10 to 12 (pockets) transversely between first dorsal origin and anal origin; 10 predorsal forward to eyes, those on occiput or top of head greatly larger than others. Caudal base scaly, though other vertical fins naked.



Charisella fredericki, new genus and new species.

D. V-13 to 15, fins close set, first spine $1\frac{\pi}{8}$ to 2 in total head length, fifth ray $1\frac{3}{4}$ to $1\frac{4}{5}$; A. I, 17 or 18, third ray 2; caudal 1, emarginate behind; least depth of caudal peduncle $2\frac{1}{3}$ to $2\frac{2}{3}$; pectoral $1\frac{3}{5}$ to $1\frac{2}{3}$ (damaged); ventral $2\frac{1}{5}$ to $2\frac{2}{5}$, rays I, 5.

Color olivaceous brown, but slightly paler below. Each scale pocket dark gray, and on back and most of upper surface forms reticulated pattern. Row of dark to gray black dots along anal base. Underlaid leaden lateral band, axial along side of body. Iris gray. Vertical fins all pale to transparent generally, each more or less dark gray terminally. Paired fins pale.

Type, A.N.S.P., no. 68521, Sainkedoek, West New Guinea, 1938, Denison-Crockett Expedition, length 28 mm.

Also nos. 68522 to 68526 paratypes, same data, length 22 to 28 mm., (5 specimens).

Apparently all are females, as none of the specimens show the sexual dimorphism of other species. Thus in the males the first dorsal, anal and ventral spines may be elongated, or the fins prolonged and the coloration more contrasted.

Rhombosoma goldiei (Macleay)

Aristeus goldiei Macleay, Proc. Linn. Soc. New South Wales, vol. 8, 1883 (1884), p. 269 (type locality, Goldie River, New Guinea).

Rhombosoma goldici Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 121 (reference); vol. 11, no. 5, 1931, p. 324; vol. 11, no. 6, 1934, p. 398 (types).—Whitley, Rec. Austral. Mus., vol. 20, no. 3, Aug. 31, 1938, p. 227 (Upper Fly River).

Depth $2\frac{1}{5}$ to $2\frac{7}{8}$; head $3\frac{1}{5}$ to $3\frac{7}{8}$, width $1\frac{1}{5}$ to 2. Snout $3\frac{1}{5}$ to $3\frac{1}{3}$ in head; eye 3 to $3\frac{1}{2}$, $1\frac{1}{10}$ to $1\frac{1}{8}$ in snout, $1\frac{1}{3}$ to $1\frac{1}{2}$ in interorbital; maxillary reaches below front eye edge, length $2\frac{2}{5}$ to $2\frac{1}{2}$ in head; mouth terminal, cleft at first horizontal, then oblique, and front upper jaw or snout tip level with upper pupil edge; teeth fine, simple, conic, in rather narrow bands in jaws, with outer series in both jaws more or less enlarged, and largest ones curved; outer part of dental area exposed with closed jaws, especially that of upper jaw; narrow band of fine teeth transversely across vomer; tongue rounded or pointed in front; interorbital $2\frac{1}{2}$ to $2\frac{1}{7}$ in total head length, low or flat. Gill rakers 3+12, lanceolate, subequal with gill filaments or 2 in eye.

Scales 34 or 35 in axial lateral series to caudal base and 4 or 5 more small ones on last; 12 or 13 transversely between first dorsal and anal origins; 14 or 15 predorsal forward opposite middle of eyes, with occipital scales largest; 3 rows on cheek. Caudal with small scales basally, area nearly \(\frac{1}{3} \) extent of fin.

D. I, 3 or 4–I, 14 or 15, second or third ray of first dorsal $1\frac{7}{8}$ to 2 in head, spine of second dorsal $2\frac{3}{4}$ to 3, last ray $1\frac{3}{4}$ to $2\frac{2}{3}$; A. I, 19, fin height 2 to $2\frac{1}{4}$; caudal $1\frac{1}{8}$ to $1\frac{1}{4}$, emarginate; least depth of caudal peduncle $2\frac{1}{2}$ to $2\frac{1}{7}$; pectoral $1\frac{2}{8}$ to $1\frac{1}{2}$, rays I, 10 or I, 11; ventral rays I, 5, fin $1\frac{2}{3}$ to $1\frac{1}{3}$ in total head length.

Color dark olivaceous brown, with nearly blackish suffusion above; each scale with silvery or paler silvery olive exposure. Under surface of head and abdomen with pale or whitish with silvery tinge. Iris dark brown. Fins all more or less dark olivaceous gray, soft dorsal and anal darker marginally, and ventral paler basally.

Three, 64 to 75 mm.