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THE TEMPLETON CROCKER EXPEDITION TO WESTERN
POLYNESIAN AND MELANESIAN ISLANDS, 1933

No. 27

FISHES

BY

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FOREWORD

The Templeton Crocker Expedition of 1933 to the Polynesian and Melanesian islands of the Western Pacific returned with a collection of fishes numbering 1830 specimens representing 248 species. Eight of these seem to be new to science, and specimens of a number of rare species were taken.

Fishes were collected at the following islands:

PALMYRA ISLAND

SAMOAN GROUP

Tutuila Island at Pago Pago.

FIJI GROUP

Viti Levu Island at Suva.

SANTA CRUZ GROUP

Vanikoro Island at Tevai Bay,
Lomlom Island at Mohawk Bay,
Anuda (Cherry) Island,
Matema Island,
Tucopia Island.

October 23, 1935

SOLOMON GROUP

Rennell Island at Kungava Bay,
Bellona Island,
Santa Ana (Owa Reha) Island,
Malaita (Mala) Island at Auki Harbor, Uras Cove,
Tai Lagoon,
Florida Island at Tulagi,
Gavutu Island at Gavutu Harbor,
Guadalcanar (Guadalcanal) Island at Aola Bay, Kau
Kau,
Sikaiana Island, Stewart Islands,
Ugi Island,
San Cristoval at Star Harbor.

The following species are described as new in this report:

Muraenichthys malaita (Echelidae).
Callechelys fijiensis (Ophichthyidae).
Cypselurus zaca (Exocoetidae).
Cypselurus crockeri (Exocoetidae).
Amia asaedæ (Apogonidae).
Abudefduf atrapinna (Pomacentridae).
Thalassoma herrei (Coridae).
Hypleurochilus samoensis (Blenniidae).

ELOPIDAE

Elops saurus Linnaeus. Ten-pounder

Pago Pago, Samoa (1)*, April 16, 41 mm. The young of this species probably has a larval transformation from young to adult similar to that of *Albula*. This specimen is almost translucent with a number of dark dots at the posterior edge of the opercle. The teeth are strong and well developed.

CHANIDAE

Chanos chanos (Forskål). Bangos. Milk Fish

Suva, Fiji (2), April 29, 98-99 mm.

CLUPEIDAE

Spratelloides delicatulus (Bennett). Sprat

Uras Cove, Malaita Island (1), May 27, 48 mm.; Tai Lagoon, Malaita Island (6), May 30, 28-45 mm.; Tai Lagoon, Malaita Island (12), May 29, 26-45 mm.; Kau Kau, Guadalcanar Island (1),

*Number in parenthesis indicates the number of specimens from the given locality.

May 22, 29 mm.; Auki, Malaita Island (4), May 25, 25–45 mm.; Santa Ana Island (68), June 30, 26–45 mm.; Rennell Island (1), June 12, 30 mm.; Pago Pago, Samoa (5), April 12, 28–31 mm.

Many of these little sprat were taken at night around the strong electric light lowered into the water.

***Spratelloides gracilis* (Schlegel).** Graceful Sprat

Tulagi Island (12), May 19, 34–40 mm.; Anuda Island (2), August 15, 23–34 mm. This species has a bright silvery stripe on the side.

***Dussumieria acuta* Cuvier and Valenciennes**
Sharp-nose Sprat

Pago Pago, Samoa (9), April 14, 45 mm.

***Dussumieria hasseltii* Bleeker.** Hasselt's Sprat

Auki, Malaita Island (1), May 25, 24 mm.; Vanikoro Island, Santa Cruz group (3), July 12, 23–24 mm.

***Sardinella sirm* (Rüppell).** Sardine

Pago Pago, Samoa (1), April 15, 51 mm.

***Harengula gibbosa* (Bleeker).** Herring

Pago Pago, Samoa (35), April 16, 23–45 mm. In these young specimens the scutes are quite distinct. The origin of the anal is under the fourth dorsal ray. Anal rays 16.

***Harengula melanura* (Cuvier).** Black-tail Herring

Uras Cove, Malaita Island (1), May 27, 115 mm. Bluish above, silvery on sides with 2–3 indistinct stripes, caudal broadly black.

***Harengula pinguis* Günther.** Herring

Tai Bay, Malaita Island (3), May 29, 30–34 mm.

***Harengula fimbriata* (Cuvier and Valenciennes).** Herring

Tai Lagoon, Malaita Island (18), May 30, 35–60 mm. In these young the origin of the dorsal is distinctly nearer the tip of snout than caudal fin. Origin of ventrals under fourth ray of dorsal. Depth 3.5 in length (without caudal). Color brownish above, otherwise silvery—a rather narrow line separating the two colors.

ENGRAULIDAE

Anchovia apiensis Jordan and Seale. Apia Anchovy

Pago Pago, Samoa (3), April 14, 38 mm.; Tai Bay, Malaita Island (2), May 29, 79–80 mm.; Tulagi Island (1), May 19, 43 mm.

Anchovia evermanni Jordan and Seale. Evermann's Anchovy

Suva, Fiji Islands (2), April 24, 81–86 mm.

Anchovia commersonii Lacépède. Anchovy

Tulagi Island (1), May 19, 32 mm.; Kau Kau, Guadalcanar Island (11), May 22, 32–33 mm.

Anchovia purpurea (Fowler). Anchovy

Kau Kau, Guadalcanar Island (13), May 21, 25–44 mm.

GONOSTOMIDAE

Diplophos pacificus Günther

Bellona Island (1), June 22, 43 mm. The type of this rare species was taken by the "Challenger" expedition near the mid-Pacific. It measured 37 mm. in length. This seems to be the second specimen taken. It agrees very well with Günther's description and figure. (Challenger Report, Vol. 31, pt. 2, p. 33, pl. 4, fig. B.)

ANGUILLIDAE

Anguilla australis Richardson. Australian Eel

One fine specimen from Tevai Bay, Vanikoro Island, May 6, 340 mm., also a fine series of larval specimens which seem to be of this species.

Anguilla mauritiana Bennett. Fresh-water Eel

Suva, Fiji Island (1), April 28, 460 mm.

MORINGUIDAE

Moringua javanica (Kaup). Java Worm Eel

Suva, Fiji Islands (3), April 30, 75–245 mm. These specimens have the dorsal and anal fins reduced to a mere fold of skin with a few rays at the tip of the tail only.

Depth about 70 in total length.

ECHELIDAE

Muraenichthys gymnopterus (Bleeker). Worm Eel

Pago Pago, Samoa (2), April 18, 65–127 mm.; Rennell Island (1), June 14, 52 mm.; Auki, Malaita Island (1), May 25, 112 mm. In this species the origin of the dorsal fin is nearer the origin of the anal than to gill openings.

Muraenichthys macropterus Bleeker

Suva, Fiji Islands (3), April 28, 48–80 mm.; Pago Pago, Samoa (2), April 18, 118 mm. In this species the origin of the dorsal fin is nearer the gill openings than to origin of anal.

Muraenichthys macrostomus (Bleeker)

Kau Kau, Guadalcanar Island (1), May 21, 77 mm.; Suva, Fiji Islands (1), April 23, 34 mm. In this species the origin of the dorsal fin is almost directly above or very slightly behind the origin of the anal.

Muraenichthys malaita Seale, sp. nov.

Plate 20, fig. 1

This species differs from all other members of the genus in having the origin of the dorsal fin posterior to the origin of the anal by more than the length of the head. Head 3.5 in body to anal pore, 9.5 in total length, depth about 3.8, snout projecting. Eye located above posterior half of mouth, its width 2.5 in length of snout, anterior nostril tubular, posterior one a slit on upper lip. Teeth small in two or more rows. No pectoral fin. Origin of anal anterior to middle of body. Origin of dorsal more than the length of the head behind origin of anal. Color yellowish with dark punctulations above.

Holotype: No. 5499. Mus. Cal. Acad. Sci., Ichthyol. **Malaita Island**. Length 116 mm.

Muraenichthys gymnotus (Bleeker)

Pago Pago, Samoa (3), April 13, 85–104 mm. Origin of dorsal posterior to origin of anal. *M. cookei* Fowler may be a synonym of this species.

OPHICHTHYIDAE

Leiuranus semicinctus (Lay and Bennett)
Half-banded Snake Eel

Suva, Fiji (1), April 26, 176 mm.; Uras Cove, Malaita Island (1), May 27, 150 mm. In this species the tip of the tail is pointed and bare; the upper jaw projecting, with tubular nostril. Body with numerous incomplete black bands.

Sphagebranchus bicolor (Kaup). Two-colored Snake Eel

Uras Cove, Malaita Island (2), May 27. Origin of dorsal on a line with the gill openings, which are ventral. Color dark above, light below, dark bands on the throat.

Sphagebranchus lumbricoides (Bleeker). Worm-like Eel

Suva, Fiji Islands (4), April 30, 165–202 mm. Origin of dorsal $\frac{1}{2}$ length of head posterior to gill openings.

Callechelys fijiensis Seale, sp. nov. Fiji Snake Eel

Plate 20, fig. 2

Suva, Fiji Islands (4), April 29, 1933. 298–350 mm. Head 10 in trunk, 21 in total length. Depth 3.5 in head, 38 in trunk, 68 in total length. Anal opening midway between tip of snout and tail. Origin of dorsal midway between gill opening and eye. No pectoral or vestige of same. Dorsal and anal not confluent around the bare pointed tail. Snout projecting, lower jaw short, extending slightly posterior of eye. Anterior nostril tubular, posterior nostril a tube extending down from upper lip. Teeth small, sharp pointed in a single row with a few additional teeth anteriorly. Color uniform brownish above, pale yellowish below. In life this eel is of a distinctly red color.

This species is related to *C. filaria* (Günther), differing in the entire absence of pectorals, arrangement of teeth and in color.

Holotype: No. 5500, Mus. Cal. Acad. Sci., Ichthyol., from **Suva, Fiji Islands**. Length 350 mm. Three paratypes, Nos. 5501, 5502, 5503.

MURAENIDAE

Gymnothorax boschi (Bleeker). Bosch's Moray

Rennell Island (2), June 13, 101–175. Head 6.7, depth 12. Teeth and coloring well shown in Dr. Bleeker's figure.

Gymnothorax chilospilus Bleeker. Moray

Rennell Island (1), June 13, 168 mm.

Gymnothorax marmorata Lacépède. Marbled Moray

Sikaiana Island (1), May 16, 123 mm.

Gymnothorax undulatus (Lacépède). Moray

Sikaiana Island (1), May 16, 323 mm. This is the form called *M. isingleenoides* by Dr. Bleeker and is well figured in his Atlas, Vol. 4, pl. 33, fig. 1.

Echidna nebulosa Ahl. Clouded Eel

Tulagi, Florida Island (1), June 26, 328 mm.; Suva, Fiji Islands (1), April 30, 134 mm. This species, well marked by its blunt teeth, is widely distributed over the Pacific.

Strophidon brummeri (Bleeker). Brummer's Moray

Suva, Fiji Islands (1), April 30, 398 mm. Dorsal fin very high, no rim to posterior nostril. Color uniform with black specks on anterior portion of head.

Larval Eels

This collection contains several fine specimens of larval eels representing a number of different species of which brief descriptions are given. All are flat, thin forms.

(a) Sikaiana Island (3), May 14, 77–88 mm. These have large canines in lower jaw. No pectorals. Two distinct rows of 17 round black dots along the middle of body, and an additional row of dots along ventral edge alternating with the median spots.

(b) Sikaiana Island (1), May 16, 100 mm. A row of 6 black spots along the ventral margin except on the posterior third of body, where they are on middle of sides and are 4 in number.

(c) Kau Kau, Guadalcanar Island (1), May 21, 45 mm. A single row of 8 large round spots along the middle of side from head to tail.

(d) Suva, Fiji Islands (1), April 28, 88 mm. Thickly pigmented with light brown spots entirely covering head and body. Perhaps it is the young of *G. flavomarginatus*.

(e) Ugi Island (1), June 23, 55 mm. Entirely white except the anterior portion of head, which is thickly pigmented with black.

(f) Aola Bay, Guadalcanar Island (1), May 23, 54 mm. White with a row of 26 small black dots near ventral surface and about 14 on the middle of side from head to tail. A very short deep larva, depth 5.5 in length.

(g) Star Harbor, San Cristoval Island (4), June 29, 54-59 mm. White without markings. Caudal large, no canine teeth.

SYNODONTIDAE

Saurus myops Bloch and Schneider. Lizard-fish

Tulagi, Florida Island (7), May 19, 40-45 mm.; Kau Kau, Guadalcanar Island (11), May 21, 30-45 mm.; Rennell Island (12), June 12, 40-46 mm.; Tai Lagoon, Malaita Island (1), May 30, 45 mm.

These are all larval forms but are easily distinguished by the black patches on the ventral surface as follows: 1 pair between pectorals and ventrals, 4 pairs between ventrals and anal.

Saurus variegatus (Lacépède). Variegated Lizard-fish

Tai Lagoon, Malaita Island (5), May 30, 37-45 mm.; Tulagi, Florida Island (1), May 19, 33 mm.; Santa Ana Island (1), June 30, 40 mm.; Kau Kau, Guadalcanar Island (4), May 21, 36-47 mm.; Aola Bay, Guadalcanar Island (1), May 18, 45 mm.; Rennell Island (4), June 12, 38-53 mm.; Suva, Fiji Islands (3), April 28, 40-46 mm.

The larval form of this species is distinguished by the presence of 2 pairs of dark patches between the pectorals and ventrals and 9 pairs between ventrals and anal.

MYCTOPHIDAE

Myctophum dumerili (Bleeker). Dumeril's Lantern-fish

Suva, Fiji (1), April 30, 99 mm. Anal photophores 4 + 5.

Myctophum evermanni (Gilbert). Evermann's Lantern-fish

Suva, Fiji (6), April 23, 19-56 mm. Anal photophores 8 + 5.

Myctophum punctatum Rafinesque. Punctated Lantern-fish

Vicinity of Suva, Fiji (1), September 29. Length 26 mm. Scales ctenoid, anal photophores 7 + 9.

Myctophum pristilepis (Gilbert and Cramer)

Solomon Island Lantern-fish

Kau Kau, Guadalcanar Island (4), May 22, 32–77 mm.; Sikaiana Island (8), May 11, 56–80 mm.; Bellona Island (1), June 22, 67 mm.; Rennell Island (1), June 17, 80 mm. Anal photophores 7 + 4.

Myctophum coccoi (Cocco). Cocco's Lantern-fish

Bellona Island (2), June 20, 60–65 mm. In this species the scales are smooth. The caudal peduncle is long and slim. Anal photophores 6 + 10 (6 + 11).

BELONIDAE

Tylosurus indica Le Sueur. Salt-water Gar

Bellona Island (1), June 20, 442 mm.; Pago Pago, Samoan Islands (1), April 14, 103 mm.; Kau Kau, Guadalcanar Island (1), May 21, 18 mm.

We give a short description of the fine large specimen from Bellona Island. Dorsal 2.21. Anal 2.20. Head 3.2 in length to end of vertebrae. Interorbital widening anteriorly; a patch of scales on its middle. Origin of ventrals midway between caudal and nostrils. No gill rakers. A distinct keel on tail. Posterior rays of dorsal about equal in length to first rays, the middle rays shorter.

Color, bluish above, silvery below. Upper half of dorsal, distal half of pectorals, and upper two-thirds of caudal purple. A wide purple membrane on lower jaw. This is the lower "lip" which, according to Weber and Beauford, is, in the young, "produced into a flap-like organ."

Tylosurus incisus (Cuvier and Valenciennes). Gar

Napani Atoll (2), May 8, 405–480 mm. Dorsal 2.18. Anal 2.21. No keel on tail. Opercle with scales. Caudal truncate. Origin of dorsal above second divided ray of anal. Blue above, silvery below. Fins white.

Athlennes hians (Cuvier and Valenciennes). Deep Gar

Suva, Fiji, April 25, 224 mm.; Aola Bay, Guadalcanar Island (1), May 18, 116 mm.; Kau Kau, Guadalcanar (2), May 22, 130–131 mm. The short upper jaw and very long lower is a feature of these young specimens.

HEMIRAMPHIDAE

Euleptorhamphus longirostris (Cuvier). Longjaw

Bellona Island (1), June 21, 332 mm. In this species the body is band like. Pectorals equal in length to the base of dorsal fin. Ventrals small. Length of lower jaw beyond upper is 3 in length of body without caudal.

Hemirhamphus far (Forskål). Halfbeak

Suva, Fiji (1), April 25, 152 mm. This species is easily distinguished by the nine black spots on each side.

Hemirhamphus convexus (Weber). Halfbeak

Bellona Island (1), June 20, 60 mm. This species has the forehead convex. The pectorals are equal to the length of the head. The upper jaw is twice as wide as long.

Hemirhamphus georgii Cuvier and Valenciennes. Halfbeak

Tulagi, Florida Islands (1), May 19, 85 mm.; Sikaiana Island (5), length 76–116 mm. This species has dorsal 16. Anal 17. Lower jaw, beyond tip of upper, one-third of total length. Origin of ventrals nearer caudal than head.

Hemirhamphus dussumieri Cuvier and Valenciennes
Dussumier's Halfbeak

Tulagi, Solomon Islands (1), May 19, 101 mm.; Vanikoro Island (3), July 7, 41–90 mm.; Tai Bay, Malaita (7), May 29, 27–30 mm.; Aola Bay, Guadalcanar Island (1), 57 mm.; Star Harbor, San Cristoval (1), June 29, 77 mm.; Anuda Island (1), August 15, 67 mm.

EXOCOETIDAE

The collection of flying fishes secured by Mr. Templeton Crocker is of special interest and value. It contains forty-two specimens representing eleven distinct species. Two of these seem to be new to science and three others are very rare, including the second specimens of the peculiar *C. bilobatus* and of *C. hexazona*, and the fourth specimen of *C. naresi* ever recorded.

Exocoetus volitans Linnaeus. Flying Fish

Suva, Fiji Islands (2), 64–68 mm. Dorsal 14, anal 14. Ventrals short, their origin nearer tip of snout than to base of caudal. Origin of anal in line with origin of dorsal. Pectorals blue with white tip.

Evolantia microptera (Cuvier and Valenciennes)

Short-fin Flying Fish

Suva, Fiji Islands (1), April 23, 111 mm. This species is easily distinguished by the short pectoral fins which do not extend to the short ventrals.

Parexocoetus brachypterus (Richardson)

Common Flying Fish

Without question two or more species of this genus are listed by most authors under the name *brachypterus*. Unfortunately, while our series is composed of 17 specimens, they are all young, the largest measuring but 90 mm., so that we are unable to clear up the matter. From Suva, Fiji, we have one specimen, measuring 90 mm., which has the dorsal 12, anal 13. Origin of ventral midway between end of vertebrae and tip of anal. Pectorals reaching anterior rays of anal only. Origin of anal on vertical with origin of dorsal. Pectorals white, ventrals gray in center, dorsal gray, anal white. Teeth on jaws, vomer, palatines and tongue. Two short barbels. Dorsal high, its depressed rays reaching well up on caudal. We also have five from Vanikoro Island, Santa Cruz group, May 6. Length 40–80. Dorsal 11, anal 11. Origin of ventrals midway between end of vertebrae and anterior margin of eye. No barbels. Two dark quarter bands under dorsal. Dorsal dark.

Bellona Island (1), has the dorsal 12, anal 13. Tulagi, Florida Island (10 very young), May 19, length 17–35 mm.; Sikaiana Island (1), May 16, length 40 mm.; Tai Bay, Malaita Island (1), May 29, length 40 mm. All the above have teeth on jaws, vomer, palatines, and tongue. The origin of the dorsal is on a line with origin of anal.

Cypselurus poecilopterus (Cuvier and Valenciennes)

Spotted-wing Flying Fish

Bellona Island (1), June 21, 143 mm. This species is easily distinguished by the numerous ovate black spots on the pectorals. Our specimen also has black spots on ventrals and dorsal. Teeth on jaws and on palatines, none on vomer or tongue. Dorsal, 12, anal 8, scales 44.

Cypselurus bilobatus Weber. Two-barbed Flying Fish*

Suva, Viti Levu Island (1), April 23, 84 mm. Distinguished by two barbels almost equal to length of head, one from each corner of mouth. Dorsal 13, anal 11. Pectorals blue at base with ovate spots

on remainder of fin. Two broad black bands in front of ventrals on belly and sides. Origin of ventrals midway between end of caudal and anterior margin of eye.

Cypselurus oligolepis (Bleeker). Small-scaled Flying Fish

Bellona Island (1), June 20. A young specimen. 35 mm. Dorsal 11, anal 8. Origin of ventral midway between end of last caudal vertebra and posterior margin of preopercle. Origin of anal under fifth dorsal ray. Pectorals blue, ventrals and dorsal with dark markings. No barbels.

Cypselurus rondeletii (Cuvier and Valenciennes)
Rondelet's Flying Fish

Bellona Island (3), June 22, 24–36 mm. Dorsal 11, anal 13. Origin of ventrals midway between end of caudal vertebra and middle of eye. Origin of dorsal on a vertical through origin of anal. Ventrals and pectorals long, second dorsal ray unbranched (but this may be immature). Ventrals are too far back in Cuvier's drawing.

Cypselurus speculiger (Cuvier and Valenciennes)
Pacific Flying Fish

Bellona Island (1), taken with a night light five miles off shore June 20, 288 mm.

Easily distinguished by the wide white bar on the pectorals and the small number (10) dorsal rays.

Cypselurus simus (Cuvier and Valenciennes)
Hawaiian Flying Fish

Bellona Island (1), June 20, 354 mm. Dorsal 13, anal 11. Scales about 50. Fins uniformly pale except outer upper surface of dorsal which is grayish.

Cypselurus opisthopus (Bleeker). Solomon Island Flying Fish

Aola Bay, Guadalcanar Island (1), May 18, 220 mm. "Attracted by a submerged light." Dorsal 10, anal 9, scales 54. Teeth on jaws and palatines. Pectoral fin dark on upper two-thirds, lower third lighter, outer ventral rays grayish.

Cypselurus naresi (Günther). Barbed Flying Fish

Bellona Island (1), June 22, 180 mm. Attracted by a night light. This fish has a peculiar apron-like barbel which in our specimen is equal to the length of the head and as wide as the pupil of the

eye. Dorsal 11, anal 9. Color in alcohol, brownish above, silvery below. Pectoral dark with the upper and lower rays white. Ventrals black with a lighter inner border. Lower part of anal and upper portion of caudal grayish, dorsal and anal white.

This seems to be the fourth and largest recorded specimen of this species.

Cypselurus zaca Seale, sp. nov. Zaca Flying Fish

Plate 21, figs. 1 and 2

Head 4.1; depth 5.5. Dorsal 11, anal 9. Pectorals long extending to the middle of dorsal, the first, second, and third rays simple, unbranched and considerably shorter than the remaining upper or middle rays of the fin. Eye large, 2.5 in head, being equal to the medium width of the interorbital. Snout less than half width of eye. Lower jaw oblique, no barbel. Ventrals long, extending to posterior part of anal, their origin midway between end of caudal vertebrae and posterior margin of preopercle. Origin of anal posterior to origin of dorsal, its rays scarcely reaching base of caudal. Dorsal rays not reaching to caudal, caudal well forked, the lower lobe much the longest. Teeth small, none on vomer or palatines.

Color in life, blue above, silvery below and on sides, pectorals, ventrals, and tips of anal and dorsal grayish. Caudal white.

Color in alcohol bluish above, silvery on sides and below. Pectorals dark except webs of three lower rays which are white. Ventrals dark except the inner and outer rays which are white. Dorsal and anal dark at tip. Caudal slightly shaded with grayish, especially on the middle of lower lobe.

Holotype: No. 5504, Mus. Calif. Acad. Sci., Ichthyol., from **Suva, Fiji Islands**, April 23, 1933, 116 mm. Plate 21, fig. 1. *Paratype* No. 5505, Mus. Calif. Acad. Sci., Ichthyol., from Bellona Island, June 20, 1933, 142 mm. Plate 21, fig. 2. The latter specimen seems to have its pectorals malformed, therefore I have taken the one of smaller size for the type.

Cypselurus oxycephalus (Bleeker). Sharp-headed Flying Fish

Bellona Island (2), June 20, 63 mm. Dorsal 12, anal 12, no barbels. Origin of dorsal on a line with the origin of anal. Origin of ventrals midway between end of caudal vertebrae and posterior margin of eye.

Cypselurus crockeri Seale, sp. nov. Crocker's Flying Fish

Plate 22, fig. 1

Head 4.7 to end of caudal vertebrae; depth 5.7; dorsal 12; anal 8; about 35 scales in front of dorsal. Eye three in head being distinctly less than width of interorbital space which is concave; jaws equal. Teeth on jaws and palatines. Mouth and snout without projections or barbels. Maxillary ending on a line with posterior nostril. Pectoral fins placed on a line with upper third of eye, their tip extending to dorsal, their length at least two in total length of fish (without caudal). Origin of ventrals midway between end of caudal vertebrae and middle of base of pectoral, being decidedly nearer to caudal than to head, their tips extending almost to caudal base. Anal short, its origin under the fifth ray of dorsal, being midway between origin of ventrals and first false rays of caudal. Dorsal very high, when depressed its middle rays extending well up on the rays of upper caudal lobe. Caudal well forked, its lower lobe greater than length of head.

Color in life blue on back, silvery below. Pectoral, anal, ventral and dorsal fins black. Caudal gray on upper lobe, three red bars on lower lobe.

In alcohol dusky, grayish below and on sides. Pectorals dark with membranes between the five lower rays slightly lighter. Ventrals dark with two inner rays lighter, dorsal and anal dark, caudal with lower lobe crossed by three dark bars.

Holotype: No. 5506, Mus. Calif. Acad. Sci., Ichthyol. This flew on deck of the yacht *Zaca* near **Rennell Island** when at sea between Kungava Bay and Tuhangango, June 17, 1933.

Named in honor of Mr. Templeton Crocker in recognition of his keen interest in scientific research.

Cypselurus hexazona (Bleeker). Banded Flying Fish

Head 4; depth 4.8; eye 2.2 slightly greater than interorbital space, which is concave. Dorsal 12-13; anal 8-9. Lower jaw projecting. No barbels except in young. Pectorals extending to middle of dorsal. Origin of anal under sixth dorsal ray. Ventrals longer than head, extending to posterior of anal base, their origin being midway between end of caudal vertebrae and middle of eye. Dorsal not elevated, its longest ray much less than head. Caudal well forked. At least 24 scales in front of dorsal fin. The lateral line very low on body and with about 50 scales. Color in life, blue above, silvery below, and on lower half of sides. Pectorals with a wide white band through the center and white on outer portion of rays, some darker oval spots on posterior half of fin. Ventrals with large black and white areas of irregular shape. Caudal with black tip and a black

sub-marginal bar. Dorsal white with a black ovate area in center and three black spots at margin of fins. Anal white.

Color in alcohol dull silvery with six dark bands showing on sides of body, the first just posterior of eye, the second below pectoral base, third midway between pectoral and ventral, fourth above base of ventrals, fifth below origin of dorsal, sixth on the caudal base.

One specimen from Bellona Island, June 22, length 175 mm., and six young, length 25–65 mm. Young all have barbels and are banded on sides with the back uniform white.

If this is the young of some other species, as Weber and Beaufort¹ seem to think, it must maintain the bands for a considerable period, as our fish is apparently an adult. Our example has two more dorsal rays than the other known specimen, which was secured by Dr. Bleeker at Banka in 1853.

PLEURONECTIDAE

Platophrys pantherinus (Rüppell). Spotted Flounder

Matema Island, Santa Cruz Group (1), July 8, 182 mm.; Pago Pago, Samoa (1), April 18, 28 mm.; Sikaiana Island (2), May 16, 35–41 mm. In this species the pectoral rays are prolonged and reach to the caudal. Orbital ridge with blunt spines anteriorly. Inter-orbital space 4 in the head. Color variegated with dark green, anal rays 86. Eyes wide apart.

Platophrys mancus (Broussonet). Mancus Flounder

One larval unpigmented specimen from Pago Pago, Samoa, April 18, 35 mm.

CYNOGLOSSIDAE

Cynoglossus brachyrhynchus Bleeker. Tongue Fish

Kau Kau, Guadalcanar Island (4), June 21, 30–33 mm.

HOLOCENTRIDAE

Holocentrus opercularis (Valenciennes). Soldier Fish

Kungava Bay, Rennell Island (1), June 10, 230 mm. Color red with more or less distinct stripes. Spinous dorsal black with a row of white spots between the spines on the lower half of the fin, margin of the dorsal white. Eye large. Preopercle scarcely denticulate.

¹ Weber and Beaufort, Indo-Austral. Fishes, Vol. IV, p. 185.

Holocentrus spinifer (Forskål). Spiny Soldier Fish

Suva, Fiji Islands (1), April 25, 293 mm. Scales strongly denticulate. Preopercular spine large. Spinous dorsal uniform yellowish.

Holocentrus caudimaculatus Rüppell. Soldier Fish

Kungava Bay, Rennell Island (1), June 10, 137 mm. Fins uniform pale pinkish. A white saddle over caudal peduncle just back of soft dorsal fin.

Holocentrus diadema Lacépède. Crowned Soldier Fish

Pago Pago, Tutuila Island (2), April 18, 37–53 mm. Spinous dorsal fin black with a broken white line through its center.

Holocentrus sammara (Forskål). Soldier Fish

Auki, Malaita Island (8), May 25, 34–37 mm.; Tai Bay, Malaita Island (16), May 29, 34–36 mm.; Ugi Island (3), June 30, 32–39 mm.; Santa Ana Island (1), June 30, 36 mm.; Star Harbor, San Cristoval Island (4), June 29, 35–38 mm.; Tulagi, Florida Island (1), May 19, 14 mm.; Suva, Fiji Islands (2), April 23, 26–30 mm. In the adult there is always a large black spot on the anterior of the spinous dorsal extending to the 3–4 spine.

Holocentrus punctatissimus Cuvier and Valenciennes

Aola Bay, Guadalcanar Island (1), May 18, 110 mm. Color in alcohol silvery, with fine dark specks everywhere, and with opalescent lighter lines along each row of scales. Spinous dorsal pale, with some milky-white markings on membrane and a small dark spot at base of anterior dorsal spine.

Myripristis macrolepis (Bleeker). Squirrel Fish

(*M. melanostictus* of Weber and Beaufort)

Kau Kau, Guadalcanar Island (6), May 21, 38–41 mm.; Auki, Malaita Island (9), May 25, 36–40 mm.; Tai Bay, Malaita Island (2), May 29, 30–45 mm.; Sikaiana Island (1), May 10, 40 mm. Dorsal X15. Scales 29 to end of vertebrae. As shown in Bleeker's figure of this species, there is a small but distinct flat spine at the angle of the preopercle. The coloring in alcohol is silvery. The caudal peduncle is yellowish followed by a darker area on the base of caudal rays. The spinous dorsal is yellowish with slightly darker shading at margin. Tips of ventrals dark.

PLATACIDAE

Platax teira (Forskål). Leaf Fish

Santa Ana Island (1), July 4. Length 320 mm. A fine adult specimen caught while rod fishing. They were very abundant at this time and are considered a fine food fish. The young of this species float on their sides near the surface, and closely resemble leaves with which they are frequently associated, perhaps for protection. The writer has, by mistake, caught the leaf in a dip net and allowed the fish, which he thought was the leaf, to escape! This species would make a most interesting aquarium fish.

Platax orbicularis (Forskål). Round Leaf Fish

One fine adult from Santa Ana Island, July 4. Length 280 mm. This species is the same as *P. vespertillo* of Bloch and Bleeker. Their specimens are immature forms.

SYNGNATHIDAE

Corythoichthys fasciatus (Gray). Banded Pipe Fish

Suva, Fiji Islands (4), April 30, 67–95 mm.; Pago Pago, Samoa (15), April 19, 38–89 mm.; Auki, Malaita Island (2), May 25, 63 mm.; Ugi Island (2), June 23, 53 mm.; Star Harbor, San Cristoval (1), June 29, 40 mm.; Rennell Island (3), June 12, 40–52 mm.; Tulagi, Florida Island (6), May 24, 26–37 mm.

Dorsal 28. Rings 15 + 34. Body smooth. Banded with green except on under surface. 2 + 4 jet black marks back of the throat. Black lines on each side of the throat. Snout with paired black dots.

Corythoichthys crenulatus (Weber). Crenulated Pipe Fish

Sikaiana Island (1), May 16, 31–53 mm.; Star Harbor, San Cristoval Island (1), June 19, 52 mm.

Syngnathus spicifer (Rüppell). Pipe Fish

Pago Pago, Samoa (4), April 19, 95 mm.; Suva, Fiji Islands (2), April 30, 50–83 mm.; Aola Bay, Guadalcanar Island (6), May 23, 39–52 mm.; Tulagi, Florida Island (1), May 24, 92 mm. In this species the rings are 16 + 40. The body is smooth. Opercle with keel. Small black dots on sides of cheeks.

Syngnathus uncinatus (Weber). Pipe Fish

Kau Kau, Guadalcanar Island (3), May 21, 50–55 mm. These have a median denticulated keel on snout and also keels over each eye. Opercle with a single longitudinal keel from which radiate fine

lines. Color greenish with white cross bars on tail. This is the second time this species has been recorded.

Coelonotus leiaspis (Bleeker). Round Pipe Fish

Kau Kau, Guadalcanar Island (1), May 21, 69 mm.; Suva, Fiji Islands (1), April 30, 84 mm.

This species has no opercular keel. Origin of anal under anterior third of dorsal. Dorsal rays 52. Color green with about 6 white bands on the tail.

AULOSTOMIDAE

Aulostomus valentini (Bleeker). Coronet Fish

Rennell Island (1), June 17, 145 mm. Color bright yellow. Two black spots on caudal fin.

FISTULARIIDAE

Fistularia petimba Lacépède. Trumpet Fish

Pago Pago, Samoa (5), April 15, 150–170 mm.; Auki, Malaita Island (8), May 26, 109 mm.; Tulagi, Florida Island (1), June 26, 109 mm.; Star Harbor, San Cristoval (1), June 29, 160 mm.; Rennell Island (3), June 17, 139–155 mm.; Kau Kau, Guadalcanar Island (6), May 21, 85–166 mm.; Tai Lagoon, Malaita Island (5), May 30, 155–166 mm.; Santa Ana Island (1), July 3, 864 mm. The color of the adult specimen was brownish on back, white below. Dorsal, anal, caudal and pectorals uniformly yellowish.

ATHERINIDAE

Atherina uisila Jordan and Seale. Silversides

Pago Pago, Samoa (2), April 16, 80 mm.; Rennell Island (14), June 12, 38–48 mm.

Atherina lacunosa Forster. Silversides

Pago Pago, Samoa (37, young), 15–25 mm.; Vanikoro Island (1), July 12, 33 mm. These show a dark stripe on posterior half of body which fades out anteriorly.

Atherina forskåli Rüppell. Silversides

Suva, Fiji Islands (7), April 25, 67–75 mm.; Tulagi, Florida Island (10), June 25, 35–80 mm.; Aola Bay, Guadalcanar Island (5), May 18, 34–36 mm.; Sikaiana Island (2), May 12, 60–67 mm.;

Tai Bay, Guadalcanar Island (8), May 29, 29–69 mm.; Star Harbor, San Cristoval Island (2), June 29, 56–57 mm. These have 42 scales in the lateral series. The anal pore is located between the last fifth of the depressed ventrals. A distinct silvery stripe equal to width of pupil on each side.

***Atherina valenciennesi* Bleeker.** Silversides

Tulagi, Florida Island (34), June 25, 34–69 mm.; Guadalcanar Island (1), May 29, 45 mm.; Malaita Island (1), May 25, 26 mm.; Aola Bay, Guadalcanar Island (3), May 18, 30 mm.; Vanikoro Island (3), July 12, 50–54 mm. The anal pore is located between the anterior third of depressed ventrals. There are 7–8 scales in advance of origin of dorsal.

***Atherina temmincki* Bleeker.** Silversides

Tai Bay, Guadalcanar Island (2), May 29, 51–61 mm.; Mohawk Bay, Lomlom Island (1), July 7, 91 mm. Body cylindrical. Anal pore in line with origin of dorsal.

MUGILIDAE

***Liza caeruleomaculata* (Lacépède).** Mullet

Kungava Bay, Rennell Island (1), June 9, 409 mm.; Pago Pago, Samoa (26), April 18, 31–47 mm.; Star Harbor, San Cristoval Island (1), June 29, 45 mm.; Tulagi, Florida Island (1), June 26, 48 mm. Anal III 9. There are 38 scales along the median line. Lips rather thick, no adipose eyelid. A black spot present in axil of pectoral.

***Liza waigiensis* (Quoy and Gaimard).** Mullet

Kungava Bay, Rennell Island (2), June 9, 255 mm.; Matema Island (1), July 7, 177 mm. Anal III 8, scales 28. No adipose eyelid. Pectorals black.

***Liza troscheli* (Bleeker).** Mullet

Suva, Fiji Group (17, young), April 25, 30–84 mm.

***Liza ceramensis* (Bleeker).** Mullet

Malaita Island (4), May 26, 49–53 mm. Anal III 9, scales 29. No adipose eyelid. Upper lip thick. Origin of the dorsal much nearer caudal than to tip of snout.

SPHYRAENIDAE

Sphyraena forsteri Cuvier and Valenciennes. Barracuda

Santa Ana Island (1), June 30, 482 mm. Scales 116. Color silvery, darker above.

SCOMBRIDAE

Scomber microlepidotus Rüppell. Mackerel

Pago Pago, Samoa (3), April 16, 27-29 mm.

Scomber japonicus Houttuyn. Mackerel Scad

Aola Bay, Guadalcanar Island (6), May 18, 40-45 mm.; Kau Kau, Guadalcanar Island (3), May 21, 49-51 mm.

CARANGIDAE

Scomberoides sancti-petri (Cuvier). Mackerel Jack

Tulagi, Florida Island (6), May 19, 30-46 mm.

Caranx marginatus Gill. Cavalla

Tai Lagoon, Malaita Island (4), May 30, 204-215 mm.; Rennell Island (2), June 17, 323 mm.; Vanikoro Island (7), July 12, 20-41 mm.

This species resembles *Caranx hippos* but differs in having the breast fully scaled. Our specimens have dorsal VIII 22. Anal II I 16. Scutes 32. The breast is fully scaled. A small but distinct black spot at upper axil of opercle. A shaded dark blotch on lower rays of the pectoral.

This collection also contained six specimens of very young *Caranx* which may belong to this species. They were secured at Pago Pago, Samoa, April 14, from among the tentacles of the common Samoan Jellyfish. These have the posterior margin of the preopercle strongly toothed for its entire length. They may represent the genus *Carangichthys* of Bleeker.

Caranx ascensionis (Osbeck). Cavalla

Kau Kau, Guadalcanar Island (2), May 22, 29-30 mm.

Caranx sexfasciatus Quoy and Gaimard. Cavalla

Pago Pago, Samoa (1), April 18, 30 mm.; Rennell Island (1), June 9, 195 mm.; Bellona Island (1), June 20, 460 mm. Silvery with 5 indistinct dark bands. Dorsal VIII I 23. Anal II I 18. Teeth in jaws, vomer and palatines, canines anteriorly. Scutes 28.

Caranx affinis Rüppell. Cavalla

Suva, Fiji Islands (1), April 24, 104 mm. Opercular spot distinct, breast fully scaled. Caudal yellow.

Alectis ciliaris (Bloch). Thread Fin

Pago Pago, Samoa (1), April 18, 33 mm.; Aola Bay, Guadalcanar Island (2), May 23, 29–30 mm. The dorsal and anal filaments are about twice the depth of the body. Bands indistinct.

Trachurops crumenophthalma (Bloch). Big-eyed Scad

Vanikoro Island (1), July 13, 275 mm. A fleshy projection into the gill chambers and the fully plated lateral line are distinctive field markings.

Elagatis bipinnulatus (Quoy and Gaimard). Runner

One fine large specimen from between Malaita and Florida Islands, May 25, taken while trolling. This is a fine game fish distributed throughout the tropical Pacific.

APOGONIDAE

Apogon novemfasciatus Cuvier and Valenciennes
Cardinal Fish

Mohawk Bay, Lomlom Island (1), July 10, 62 mm.

Apogon savayensis Günther. Cardinal Fish

Mohawk Bay, Lomlom Island (2), July 10, 32–40 mm.

Apogon orbicularis Cuvier and Valenciennes

Tulagi, Florida Island (1), May 24, 15 mm. This species may be distinguished by the black ventrals, the dark oblique line from the dorsal to the ventral surface, and the black spots on posterior portion of body.

Apogon asaedae Seale, sp. nov. Cardinal Fish

Plate 23, fig. 1

Head 2.7 to end of vertebra. Depth less than head. Dorsal VII 9. Anal II 8. Scales 24 in lateral series. The lateral line complete. Teeth sharp pointed, in two or more rows. Teeth on the palatine. Preopercle smooth. Eye 3.7 in head. Maxillary ending under middle of eye, its distal end of greater width than pupil. Caudal forked. No elongated fins. Ventrals when depressed extending beyond origin of anal.

This fish is distinctively marked. The head is lighter in color than the body. There are four, closely placed, black bands radiating from the eye, the upper one extending on the nuchal region and uniting with its fellow, the second extending back along the edge of the opercle, the third obliquely across the cheeks and the fourth obliquely down and back from the eye.

The pectorals, ventrals and spinous dorsal are chiefly jet black. The basal-half of the soft dorsal and anal are black. The caudal is white.

Holotype: No. 5507 and paratypes Nos. 5508, 5509, 5510, Mus. Calif. Acad. Sci., Ichthyol.

Four specimens, length 20–21 mm., collected at **Pago Pago, Tutuila Island, Samoa**, April 14, 1933, by Toshio Asaeda, the skillful artist of the Crocker Expedition, for whom I take pleasure in naming this species.

Apogon lateralis Valenciennes. Cardinal Fish

Suva, Fiji Islands (1), April 20, 39 mm.

Foa fo Jordan and Seale. Samoan Cardinal Fish

Suva, Fiji Islands (16), April 30, 20–30 mm. These agree perfectly with the description and figure given by Jordan and Seale in Bull. U. S. Bureau Fisheries, 25, 1906, p. 248, fig. 42.

AMBASSIDAE

Ambassis interrupta Bleeker. Glass Fish

Auki, Malaita Island (7), May 26, 56–85 mm. In this species the second dorsal spine is very long with the point turned forward. The first and third anal spines are almost equal in length, the second is directed forward at tip. A black stripe on each caudal lobe, black on web of first dorsal spine, and on webs of first and third anal spines. Two rows of scales on cheeks.

Ambassis vaivasensis Jordan and Seale. Glass Fish

Suva, Fiji (12), April 24, 24–74 mm. Our specimens agree fully with Jordan and Seale's description and figure (Bull. U. S. Bur. Fish. 25, 1906, p. 254, fig. 47).

KUHLIIDAE

Kuhlia caudovittata (Lacépède). Island Bass

Suva, Fiji Islands (1), April 28, 70 mm. This species has caudal well forked and a single wide oblique black band on each lobe. The body is covered with irregular shaped dark spots. Soft dorsal and anal with spots.

Kuhlia taeniura (Cuvier and Valenciennes). Island Bass

Bellona Island (1), June 22, 41 mm. Body silvery, caudal with two oblique dusky bands and a central bar in middle of fin.

SERRANIDAE

Epinephelus merra Bloch. Honeycomb Bass

Rennell Island (8), July 8, 77–205 mm.; Sikaiana Island (1), May 16, 64 mm.; Mohawk Bay, Lomlom Island (1), July 10, 65 mm. Entire body except belly covered with distinct hexagonal spots.

Epinephelus corallicola (Valenciennes). Spotted Bass

Matema Island, Swallow Group (1), July 3, 295 mm. Scattered blue spots with dark margins on body and fins, except pectorals and ventrals, the latter fins being margined with dusky.

Cephalopholis urodelus (Cuvier and Valenciennes). Sea Bass

Tucopia Island (1), May 5, 296 mm. Body yellowish with small dark dots. Caudal rounded without bars. Dorsal IX 15.

Variola louti (Forskål). Sea Bass

Santa Ana Island (1), July 3, 380 mm.; Anuda Island (1), July 16, 280 mm. Dorsal spines nine. Caudal lobes elongated. Color red with blue spots.

Petrometopon pachycentron (Valenciennes). Black Sea Bass

Tulagi, Florida Island (1), June 26, 135 mm. Uniform dark brown. The dorsal, caudal and anal narrowly edged with white.

PSEUDOCROMIDAE

Pseudogramma polyacanthus (Bleeker). Chromid

Rennell Island (2), June 13, 35-41 mm. Maxillary extending posterior to eye. Large white spots over body. A large black spot on opercle.

PRIACANTHIDAE

Priacanthus cruentatus (Lacépède). Bigeye

Rennell Island (1), June 12, 1934, 53 mm. Dorsal and ventral fins mottled with black.

PEMPHERIDAE

Pempheris vanicolensis Cuvier. Cataluf

Anuda Island (1), August 15, 75 mm. No black spot at base of ventrals. Caudal with a black tip.

LUTIANIDAE

Lutianus marginatus (Cuvier). Marginate Snapper

Palmyra Island (2), April 3, 224-255 mm.; Pago Pago, Samoa (8, young), April 16, 34-45 mm. Dorsal X 15. Anal III 8. In the young the color is white with dark margin on the spinous dorsal fin.

Lutianus gibbus (Forskål). Long-nose Snapper

Tucopia Island, Santa Cruz Group (1), May 5, 283 mm.

Lutianus bohar (Forskål). Red Snapper

Star Harbor, San Cristoval Island (4), June 23, 20-25 mm.

Lutianus kasmira (Forskål). Blue and Gold Snapper

Anuda Island (1), July 16, 211 mm.

Lutianus semicinctus Quoy and Gaimard

Half-banded Snapper

Kau Kau, Guadalcanar Island (1), May 21, 30 mm. Even in these young the bands and the spot on base of caudal show distinctly.

Nemipterus metopias (Bleeker). Snapper

Auki Bay, Malaita Island (1), May 25, 213 mm. No teeth on vomer, palatine or tongue. 4-6 canines in each jaw, preopercle entire. 3 rows of scales on cheeks. Fins not elongated. Color uniform yellowish white, a pale line through base of dorsal fin.

LETHRINIDAE

Lethrinus leutjanus Lacépède. Plain Porgy

Anuda Island (1), July 16, 320 mm. Color uniform yellowish brown.

Lethrinus reticulatus (Valenciennes). Porgy

Kau Kau, Guadalcanar Island (1), May 21, 25 mm.

Pentapus aurolineatus (Lacépède). Yellow Striped Porgy

Santa Ana Island (1), July 3, 233 mm. A distinct silvery area at posterior exis of soft dorsal. A short silvery stripe at origin of lateral line, and another two scales below this. Three yellow stripes on sides. Eye large, greater than length of snout.

SPARIDAE

Monotaxis grandoculis (Forskål). Bigeye, Pargo

Stewart Island (1), May 11, 287 mm. Big molar teeth on sides of jaw. Eye very large. Angle of snout more than 45 degrees. Brown with 2-3 lighter bands over back.

KYPHOSIDAE

Kyphosus vaigiensis (Quoy and Gaimard). Pilot Fish

Bellona Island (1), June 22, 45 mm.

GERRIDAE

Gerres poeti Cuvier and Valenciennes. Slipmouth

Mohawk Bay, Lomlom Island (1), July 10, 133 mm. Uniform silvery, with dark spots between dorsal rays at base of fin.

Gerres filamentosus Cuvier and Valenciennes. Slipmouth

Kungava Bay, Rennell Island (1), June 9, 164 mm. Silvery with 6-7 dark bands down the sides.

MULLIDAE

Upeneus vittatus (Forskål). Goat Fish

Vanikoro Island (1), July 13, 251 mm.; Sikaiana Island (4), May 10, 40-44 mm.; Ugi Island (1), June 23, 36 mm. This species has 4-5 oblique bands on the caudal, one of the bands of the lower lobe always of considerably greater width than others.

Upeneus tragula Richardson. Goat Fish

Star Harbor, San Cristoval Island (2), June 24, 25-27 mm.; Tulagi, Florida Island (2), May 19, 30-37 mm.; Aola Bay, Guadalcanar Island (1), May 23, 32 mm.; Sikaiana Island (1), May 10, 48 mm.; Ugi Island (1), June 23, 35 mm.; Sikaiana Island (4), May 10, 40-48 mm.; Uras Cove, Malaita Island (3), May 28, 40-43 mm.; Pago Pago, Samoa (4), April 16, 40-45 mm.

Pseudupeneus barberinus (Lacépède). Goat Fish

Tulagi Island (1), June 26, 40-43 mm.; Auki, Malaita Island (2), May 15, 45-48 mm.; Uras Cove, Malaita Island (3), May 27, 48-49 mm.; Ugi Island (4), June 23, 45-46 mm.; Santa Ana Island (1), May 23, 47 mm.; Aola Bay, Guadalcanar Island (1), May 23, 49 mm.; Tulagi, Florida Island (1), June 26, 40-43 mm.

This species may be distinguished by the black line from snout to near the caudal, and the black spot on the caudal peduncle.

Pseudupeneus bifasciatus (Lacépède). Goat Fish

Rennell Island (1), June 12, 92 mm.; Auki, Malaita Island (6), May 15, 45-47 mm.

Pseudupeneus pleurostigma (Bennett). Goat Fish

Ugi Island (1), June 23, 61 mm.; Santa Ana Island (1), June 30, 63 mm. A distinct round black spot on side below the interval of the two dorsal fins.

Pseudupeneus indicus (Shaw). Goat Fish

Mohawk Bay, Lomlom Island (1), July 10, 237 mm. Distinguished by the golden spot below hind portion of spinous dorsal, and the large black spot on side of caudal peduncle.

Mulloides samoensis Günther. Goat Fish

Kungava Bay, Rennell Island (2), June 9, 195-282 mm.

CIRRHITIDAE

Cirrhitus marmoratus Lacépède. Sleepers

Tulagi, Florida Island (1), June 25, 79 mm.

CHAETODONTIDAE

Chaetodon lunula (Lacépède). Butterfly Fish

Pago Pago, Samoa (23, young), April 16, 11–13 mm.; Star Harbor, San Cristoval Island (71, young), June 29, 10–12 mm.; Ugi Island (1), June 23, 19 mm.; Suva, Fiji Islands (8), April 26, 19–22 mm. The young all have the heavy spine below the opercle, and two large scalelike plates on the shoulders. All show the ocular band, and the dark area on the caudal peduncle.

Chaetodon flavirostris Günther. Butterfly Fish

Pago Pago, Samoa (2, young), April 18, 11 mm. These have a wide black orbital band which extends up on the nuchal region, and a rather wide black area posteriorly from the dorsal across the caudal peduncle to anal.

Heniochus varius (Cuvier and Valenciennes). Humpback

Pago Pago, Samoa (1), April 15, 40 mm.; Kau Kau, Guadalcanar Island (1), May 23, 31 mm. In this species the 4–5 dorsal spines are prolonged, these young show the beginning of the characteristic hump of the anterior profile.

ZANCLIDAE

Zanclus canescens (Linnaeus). Moorish Idol

Pago Pago, Samoa (2), April 16, 72–75 mm.

ACANTHURIDAE

Naso unicornis (Forskål). Unicorn Fish

Pago Pago, Samoa (3), April 15, 20 mm. These correspond closely to Garrett's figure in Günther's "Südsee" pl. IX, fig. E. There are three or four rows of indistinct spots on the sides.

Acanthurus lituratus Schneider. Surgeon Fish

Sikaiana Island (1), May 11, 246 mm. The upper and lower rays of caudal greatly prolonged. Color black, a line from eye down snout and around upper lip. Base of caudal spines in single yellow area.

Hepatus triostegus (Linnaeus). Striped Tang

Santa Ana Island (1), July 2, 167 mm.; Tai Lagoon, Malaita Island (1), May 29, 62 mm. The young show about 6 dark bands on sides.

Hepatus dussumieri (Cuvier and Valenciennes). Brown Tang

Uras Cove, Malaita Island (2), May 27, 27 mm.; Ugi Island (1), June 23, 28 mm.

Hepatus güntheri (Jenkins). Common Tang

One large specimen No. 0762. Length 448 mm.

Zebrasoma veliferum (Bloch). Bigfin Tang

Pago Pago, Samoa (1), April 14, 31 mm. Numerous dark bands over the body. It is well figured in Günther's "Südsee" pl. 76, fig. C, under the name of *A. flavescens*.

SIGANIDAE

Siganus rivulatus (Forskål). Rivulated Stinging Fish

Aola Bay, Guadalcanar Island (4), May 21, 34-36 mm. Characterized by 6 dark bands and diffused markings.

Siganus tetrazonus (Bleeker). Stinging Fish

Kau Kau, Guadalcanar Island (24), May 21, 21-40 mm.; Aola Bay, Guadalcanar Island (7), May 23, 23-35 mm.; Uras Cove, Malaita Island (1), May 28, 25 mm.

SCORPAENIDAE

Synanceja verrucosa Schneider. Ugly Mug

Sikaiana Island (1), May 16, 205 mm. This is probably the ugliest known fish.

Sebastapistes laotale Jordan and Seale. Scorpion Fish

Suva, Fiji Islands (1), April 30, 33 mm.; Mohawk Bay, Lomlom Island (1), July 10, 34 mm.

Scorpaenopsis novae-guineae (Cuvier). Scorpion Fish
Suva, Fiji Islands (1), April 24, 34 mm.

Scorpaenopsis cookii (Günther). Cook's Scorpion Fish
Rennell Island (1), June 13, 50 mm.

Sebastopsis guamensis (Quoy and Gaimard)
Guam Scorpion Fish
Rennell Island (1), June 13, 35 mm.

APLOACTIDAE

Aploactis milesii Richardson. Velvet Fish

One of these rare little fishes from Suva, Fiji Islands, April 24, 53 mm. No scales apparent, the skin being velvety. Origin of dorsal fin above orbit. Anterior dorsal spine longest.

CEPHALACANTHIDAE

Cephalacanthus orientalis (Cuvier and Valenciennes)
Sea Robin

Kau Kau, Guadalcanar Island (6), May 21, 10–12 mm. These are larval forms. The large black pectorals and the long slim ventrals are characteristic of the species.

POMACENTRIDAE

Premnas biaculeatus (Bloch)

Rennell Island (12, young), June 13, 29–39 mm.

Amphiprion percula (Lacépède). Anemone Fish

Sikaiana Island (1), May 16, 27 mm. Color markings, yellow with three white bands bordered with black.

Pomacentrus lividus (Schneider). Livid Damsel Fish

Sikaiana Island (3), May 16, 45–104 mm.; Star Harbor, San Cristoval Island (36), June 29, 10–12 mm.; Kau Kau, Guadalcanar Island (25), May 21, 9–12 mm.; Ugi Island, June 23, 10–12 mm.

This species has 12 dorsal spines, 2 anal spines. A broad naked preorbital and snout. Small blue dots on most of the scales and some larger blue spots on cheeks and head. No black spot in axil of fin.

Pomacentrus nigricans (Lacépède). Black Damsel Fish

Rennell Island (1), June 12, 115 mm.; Sikaiana Island (1), May 16, 37 mm. Color dark brown, a black spot on posterior axil of soft dorsal fin and at axil of pectorals. A blue line on sub-opercles. The preorbital is narrower than in *P. lividus*.

Pomacentrus prosopotaenia Bleeker. Spotted Damsel Fish

Sikaiana Island (1), May 14, 22 mm. This species has small blue dots on the scales, and a large black ocellus with white border at the posterior axil of the soft dorsal.

Pomacentrus bifasciatus Bleeker

Sikaiana Island (36, young), May 16, 10–14 mm.

Abudefduf uniocellatus (Bleeker). One-spot Damsel Fish
(Probably not of Quoy and Gaimard)

Mohawk Bay, Lomlom Island (5), July 10, 22–37 mm. These specimens are all a vivid blue with belly and throat lighter. No spots on scales, spinous dorsal as dark as the body, other fins yellowish white, the anal with a narrow terminal black line. A black line as wide as pupil through the eye uniting with its fellow around snout and extending to origin of lateral line. A large black ocellus occupies the bases of 3–4 dorsal rays, no dark spot in axil of this fin. A distinct black line from tip of snout midway between eyes to origin of dorsal fin.

Abudefduf septemfasciatus (Cuvier and Valenciennes)

Pago Pago, Samoa (1), April 18, 18 mm. Even in this very small specimen the dark stripe extending out on each caudal lobe is quite distinct.

Abudefduf atrapinna Seale, sp. nov. Black-fin Damsel Fish

Plate 22, fig. 2

Head 3. Depth 2. Dorsal XII 14. Anal II 12. Scales 32, 22 in lateral line which is incomplete. Teeth in a single series. Preopercle unarmed. Anterior dorsal spines the longest. Caudal forked.

Body yellowish. Each scale on upper half of body with a brown vertical mark, or with 3-4 dark dots. Upper two-thirds of pectorals jet black. Basal half of dorsal spines jet black. A large black ocellus on posterior portion of spinous dorsal and extending on to the rays. Soft dorsal with a black area at its base. Caudal, soft dorsal, and anal yellow. Ventrals yellow with black tips.

Type: No. 5511, Mus. Calif. Acad. Sci., Ichthyol. **Sikaiana Island**, 18 mm. *Paratypes:* Nos. 5512, 5513, Mus. Calif. Acad. Sci., Ichthyol. Tulagi, Florida Island, May 19, 16-18 mm.

Abudefduf azysron (Bleeker). Damsel Fish

Mohawk Bay, Reef Island (2), July 10, 49-64 mm. Characterized by the dark body and yellow on posterior of soft dorsal. Caudal yellowish with dark margin. Preopercle entire.

Abudefduf antjerius (Kuhl and Van Hasselt). Damsel Fish

Pago Pago, Samoa (2), April 18, 12 mm.; Mohawk Bay, Lomlom Island (2), July 7, 26-36 mm.; Tulagi, Florida Island (6), May 19, 18-20 mm.; Suva, Fiji Islands (1), April 28, 19 mm. Bluish, a wide blue line from tip of snout backward over the back to the black ocellus. Dorsal with black margin.

Abudefduf bonang (Bleeker). Three-eyed Damsel Fish

Kau Kau, Guadalcanar Island (63, young), May 22, 14-22 mm.; Sikaiana Island (3), May 16, 21-23 mm. Dorsal XIII 11. Anal II 12. Scales 27. 17 in lateral line which ends under posterior portion of dorsal. A black ocellus on base of last 5 dorsal spines, this mark impinging somewhat on the back. No black in axil of any fin.

Abudefduf sexfasciatus (Lacépède). Black-tail Damsel Fish

Suva, Fiji Islands (5), April 24, 43-64 mm.

Abudefduf glaucus (Cuvier). Glaucous Damsel Fish

Mohawk Bay, Lomlom Island (1), July 10, 52 mm.

Abudefduf leucozonus (Bleeker). Damsel Fish

Mohawk Bay, Lomlom Island (1), July 10, 30 mm. Brown in color with a white bar down on the side from 4-6 dorsal spines. A large black ocellus on posterior of spinous dorsal.

Dascyllus aruanus (Linnaeus). Coral Beauty

Rennell Island (3), June 12, length 38-44 mm.; Sikaiana Island (10), May 14, 22-46 mm.; Mohawk Bay, Lomlom Island (1), July 10, 52 mm. Color white with three black bands, caudal and pectoral white.

Dascyllus melanurus Bleeker. Coral Beauty

Rennell Island (1), June 12, 26 mm.; Sikaiana Island (7), May 14, 26-52 mm.; Mohawk Bay, Lomlom Island (1), July 10, 20 mm. Similar to preceding species, but with caudal chiefly black.

Chromis caeruleus (Cuvier). Sea Blue Fish

Aola, Lomlom Island (1), May 18, 68 mm.; Tulagi, Florida Island (13), May 16, 32-37 mm.; Rennell Island (1), May 21, 22 mm.; Pago Pago, Samoa (20), April 18, 16-22 mm. In these very young the preopercle is strongly toothed, the teeth are sharply pointed, the maxillary extends to below the anterior margin of the eye. Depth equal to length of head, 2.7 in total length (without caudal). Eye greater than snout. Dorsal XIII 12. Anal II 3. Scales 24. Color in life pale bluish green. Color in alcohol yellowish-white, fins uniform.

Chromis bitaeniatus Fowler and Bean

Rennell Island (1), May 21, 11 mm. It is of interest to note that this is the second specimen of the species ever secured. The type was from the Philippine Islands.

Chromis cinerascens (Cuvier)

Tulagi, Florida Islands (34), June 25, 15-21 mm.; Rennell Island (37), May 21, 20-22 mm.; Tai Bay, Malaita Island (22), May 29, 10-15 mm.; Sikaiana Island (14), May 16, 10-21 mm.; Mohawk Bay, Lomlom Island (1), July 7, 16 mm.; Star Harbor,

San Cristoval Island (1), June 29, 17 mm.; Kau Kau, Guadalcanar Island (25), May 21, 16–24 mm.

These young chromids are white in color, with a dark stripe from base of caudal to near the center of the body. The caudal is deeply forked. There are 14 dorsal spines. Seventeen scales in the lateral line which ends under the beginning of the soft dorsal.

CORIDAE

Hemigymnus melapterus (Bloch). Biglip

Sikaiana Island (1), May 11, 336 mm. Distinguished by the extraordinary broad lips, the light colored shoulder band, the mottled nose, and the dark body.

Coris gaimardi (Quoy and Gaimard). Gaimard's Wrasse

Sikaiana Island (1), May 16, 229 mm. Posterior part of body with bright blue spots, caudal golden.

Cheilinus undulatus Rüppell. Pig Fish

Sikaiana Island (1), May 16, 430 mm.

Thalassoma lunare (Linnaeus). Moon Wrasse

Palmyra Island (1), April 3, 210 mm. Distinguished by the elongated deep blue area on upper half of pectoral and the deeply lunated caudal with its sub-margin of deep blue.

Thalassoma herrei Seale, sp. nov. Wrasse Fish

Plate 23, fig. 2

Head 3.5 in length to end of caudal vertebrae. Depth 3.5. Dorsal VIII 13. Anal III 11. Scales 26, 12 in a cross series at origin of dorsal, 7 before dorsal. Lateral line complete, but bent on posterior portion of body. Teeth sharp, pointed, the anterior ones slightly enlarged, no posterior canines. Caudal fin truncate, equal in length to head.

Color in alcohol greenish, a large black blotch at the base of the anterior portion of soft dorsal, a second dark blotch at base of caudal, a red line through middle of soft dorsal. Pectorals with a deep blue area on the upper third of the fin as in *T. lunare*.

This is closely related to *T. lunare*, and in fact may be an immature stage of that species, but if so it has never been described or illus-

trated. It is easily distinguished from other species of *Thalassoma* by the large black spot on base of soft dorsal and at base of caudal.

Holotype: No. 5514, Mus. Calif. Acad. Sci., Ichthyol. **Tulagi, Florida Island**, June 26, 1933, 111 mm. Named in honor of Dr. Albert W. Herre in recognition of his extensive work on Pacific fishes.

***Thalassoma schwanefeldii* (Bleeker)**

Sikaiana Island (1), May 14, 62 mm.

***Pseudocheilinus hexataenia* (Bleeker)**

Sikaiana Island (2), May 14, 34–35 mm. These show but 6 white stripes; the black ocellus on upper portion of caudal peduncle is quite distinct. Lips crossed with 4–5 jet black lines.

***Cirrhilabrus solorensis* (Bleeker)**

(Not *C. jordani* Snyder)

Sikaiana Island (1), May 14, 41 mm.

SCARIDAE

***Callyodon bicolor* (Rüppell).** Black-speckled Parrot Fish

Sikaiana Island (1), May 11, 380 mm. Body, except back and front of head, profusely spotted with black dots usually 2–5 on each scale.

***Scarichthys auritus* (Valenciennes)**

Suva, Fiji Islands (1), April 29, No. 1012, 60 mm.

GobiIDAE

***Ophiocara aporos* (Bleeker).** Golden Goby

Suva, Fiji Islands (2), April 24, 117–121 mm. Dorsal VI 9. Anal 11. Scales 28. Yellowish. Darker above. An irregular dark stripe on middle of side. A narrow oblique line back from eye.

Gnatholepis puntangoides (Bleeker)

Auki Harbor, Malaita Island (1), May 26, 101 mm. Dorsal VI 12. Anal 11. Scales 26. Dark brownish above, light below with 10-12 bars of color extending downward. Dorsal and caudal with dark spots, dorsal rays slightly elongated. 2 grooves divide cheeks into 2 rows of scales.

Gnatholepis deltoides (Seale)

Suva, Fiji Islands (1), April 24, 23 mm.

Gnatholepis anjerensis (Bleeker)

Suva, Fiji Islands (2), April 19, 17-19 mm.

Eleotris fusca (Bloch and Schneider)

Three from a lake on Rennell Island, August 6, 103-120 mm.

Glossogobius biocellatus (Cuvier and Valenciennes)

Auki, Malaita Island (1), May 26, 67 mm.

Eviota afelei Jordan and Seale

Rennell Island (1), June 12, 20 mm.

Zonogobius semidoliatus (Cuvier and Valenciennes)

Mohawk Bay, Lomlom Island (1), June 7, 30 mm. This dainty little species is beautifully marked with distinct bands on head and anterior of body.

Bathygobius fuscus (Rüppell)

Mohawk Bay, Lomlom Island (2), August 10, 29-32 mm. Distinguished by the notched tongue, the thread-like rays on upper base of pectoral and the color.

Gobius ornatus Rüppell

Bellona Island (1), June 20, 80 mm. Distinguished by the free silk-like rays on upper base of pectoral, the rounded tongue, rows of dark spots on sides, and dark lines on the dorsal and anal.

Rhinogobius neophytus (Günther)

Suva, Fiji Islands (3), April 28, 31 mm.

Rhinogobius criniger (Cuvier and Valenciennes)

Suva, Fiji Islands (1), April 24, 15 mm.

Gobiodon citrinus (Rüppell)

Rennell Island (16), June 13, 15-23 mm.

Gobiodon rivulatus (Rüppell)

Rennell Island (8), June 13, 25-38 mm.

Paragobiodon xanthosomus (Bleeker)

Rennell Island (11), June 13, 24-35 mm.; Sikaiana Island (16), May 14, 23-33 mm. Brown with red head.

Paragobiodon melanosomus (Bleeker)

Rennell Island (9), June 13, 15-23 mm. Color jet black.

ECHENEIDAE

Leptecheneis naucrates (Linnaeus). Shark-pilots

Bellona Island (1), June 20, 52 mm.

PARAPERCIDAE

Parapercis hexophthalma (Cuvier). Spotted Round Perch

Kungava Bay, Rennell Island (1), June 10, 156 mm. Upper surface and cheeks profusely spotted, a large black area on caudal. Five black ocelli with white borders located on short half-bands on lower half of side. A light colored area along middle of side from head to caudal.

BLENNIIDAE

Periophthalmus koelreuteri (Pallas). Mud Skipper

Vanikoro Island (1), May 6, 105 mm.; Mohawk Bay, Lomlom Island (1), July 10, 120 mm. Scales more than 80 in lateral series.

Petroscirtes tapeinosoma Bleeker. Eel Blenny

Sikaiana Island (2), May 16, 64 mm. Upper half of body dark. Pale blue below. A dark bar extending to tip of caudal on the sides, the bar broken up into numerous small sections. Teeth of upper jaw long; fixed canines in lower jaw.

Petroscirtes anema Bleeker. Blenny

Auki Bay, Malaita Island (9), May 26, 30–60 mm.

Identified as *P. anema* of Bleeker with reluctance as there seem very definite points wherein they differ from his description. Our specimens all show a fin count of dorsal 30, anal 20.

There are 3 black stripes on the body—the upper along the back and including the lower half of the dorsal fin. The second is from tip of snout through the eye to near middle of caudal, where it bends down to meet the up-curved end of the third dark stripe, which extends from opercle to this line. A definite bluish white stripe between the two lower black stripes. A jet black spot between 1–2 dorsal spines at its tip. Canines of lower jaw very large; upper canines small. Two distinct barbels on the chin, two small barbels just posterior of eye. Several distinct mucous pores on the head. Ventrals, anal, pectorals, caudal and outer half of dorsal white. Dorsal and anal with very narrow margin of black.

Petroscirtes filamentosus (Valenciennes). Filamentous Goby

Rennell Island (1), June 12, 56 mm. This species is easily distinguished by its elongated anterior dorsal spines. The markings of our specimen agree fully with Dr. Günther's figure.

Petroscirtes maroubrae (Ogilby). Barred Blenny

Tulagi Island (1), May 19, 19 mm.; Kau Kau, Guadalcanar Island (2), May 22, 35–37 mm. Color dark bluish, with about 7 black bars slightly less than the interspaces on body, these bands extend to tip of dorsal and anal fin; very distinct on dorsal, less distinct on body and anal. Base of pectorals black. No ocellus on head. No stripes on body.

Salarias quadricornis Kittlitz. Crested Blenny

Bellona Island (1), June 22, 90 mm.

Salarias meleagris Valenciennes

Bellona Island (4), June 22, 37-45 mm.

Salarias sealei (Bryan and Herre). Seale's Blenny

Mohawk Bay, Lomlom Island (1), July 10, 40 mm.

Salarias margaritatus (Kendall and Radcliffe)

Bellona Island (2), June 22, 52-55 mm.; Rennell Island (5), July 12, 25-50 mm. Although Fowler has united this species with *S. caesioides* Seale our specimens would indicate that they may be distinct. This species, as well shown in Kendall and Radcliffe's figure, has the posterior axil of soft dorsal much farther from the caudal than has *S. caesioides*, and the markings seem decidedly different. Our specimens have no color on the anal fin and are otherwise pale. Both species have canine teeth in lower jaw.

Salarias garmani Jordan and Seale. Blenny

Pago Pago, Samoa (1), April 19, 19 mm. Uniform white in color.

Enneapterygius pardochir Jordan and Seale. Blenny

Mohawk Bay, Lomlom Island (4), July 10, 20-26 mm.; Rennell Island (1), June 13. 22 mm.

Hypoleurochilus samoensis Seale, sp. nov. Black-fin Blenny

Plate 23, fig. 3

Among the fishes secured by Mr. Templeton Crocker at Pago Pago, Samoa, April 18, were two small blennies which seem to merit description, although they may not yet be fully mature.

Head 4.1 in length to end of caudal vertebra, being about equal in length to the depth of the body. Dorsal XII 18. Anal 21. The dorsal is continuous without notch and free from the caudal. Its origin is above the origin of the pectorals. Origin of the anal on a

line with the origin of soft dorsal. Pectorals longer than head. Ventrals jugular, their tip extending to below the tenth dorsal spine. Caudal square, its length about equal to head. Eye large, its width greater than length of snout. Gill openings confined to short slits. Teeth pointed, 2 large posterior canines in lower jaw. A distinct spine projects back from the angle of the opercle (probably an immature feature). Color white with pectorals jet black on lower two-thirds, the upper third white, a dark area on opercle, some small black dots at base of fins.

Holotype: No. 5515, paratype No. 5516, Mus. Calif. Acad. Sci., Ichthyol. Two specimens from **Pago Pago, Tutuila Island, Samoa**, April 18, 14–16 mm.

Larval Forms of Blenniidae

Tulagi, Florida Island (11), May 19, 15–16 mm.; Rennell Island (15), June 17, 22–23 mm.; Kau Kau, Guadalcanar Island (14), May 22, 20–22 mm.; Ugi Island (4), June 23, 19–20 mm.

In our collection are a number of very small and immature forms of *Salarias* which it seems impractical to place definitely with any species although they seem very near to *Salarias lineatus*. These are white, without distinctive markings either of body or fins; they have dorsal XII 22. Anal 22–24.

BALISTIDAE

Balistes papuensis Macleay. Trigger Fish

Santa Ana Island (1), June 30, 25 mm.; Sikaiana Island (1), May 15, 30 mm.; Pago Pago, Tutuila Island (33), April 14–16, 25–35 mm.

Twenty specimens of young which we consider to be this species were collected at Pago Pago on April 14–16, from crevices of coral rocks. These have 5 rows of spinous scales on the caudal peduncle. Dorsal IV 25. Anal I 23.

All are pale greenish, darker above and with silvery sheen below. Entire body covered with scattered small brown spots which are round and smaller than pupil. First dorsal spine and ventral spines toothed. Fins all colorless.

Balistes flavimarginatus Rüppell. Trigger Fish

Kau Kau, Guadalcanar Island (1), May 21, 28 mm.; Uras Cove, Malaita Island (7), May 28, 30–36 mm.; Pago Pago, Tutuila Island (3, young), April 14, 20 mm.

These are similar to the above except that they have no brown spots. The color is greenish clouded with darker on upper two-thirds of body, a dark band through caudal. Five rows of enlarged spines on sides of tail. An indication of three darker indistinct lines between the eyes. Dorsal III I 23. Anal I 22.

Balistes conspicillum (Bloch and Schneider)

White-spotted Trigger Fish

One fine specimen from Sikaiana Island, May 16. 295 mm. Blackish with conspicuous white spots larger than eye on lower half of body. A white band over the snout.

Balistapus aculeatus (Linnaeus). Black-bar Trigger Fish

Palmyra Island (1), April 12, 178 mm.

Balistapus undulatus (Park). Red-line Trigger Fish

Kungava Bay, Rennell Island (1), May 31, No. 0651, 230 mm. No. 0728, probably from Anuda Island, July 16, 254 mm. Body covered with curved red or yellowish lines. Rather wide stripe around lips and extending back to below pectoral.

MONACANTHIDAE

Oxymonacanthus longirostris (Bloch and Schneider)

Long-nose File Fish

Pago Pago, Tutuila Island (1, young), April 18, 25 mm. About 5 indistinct black bars over the body, and a large round black spot on the tail.

Monacanthus howensis (Ogilby). Leather-jacket

Suva, Fiji Islands (1), April 25, 44 mm.; Kau Kau, Guadalcanar Island (6), May 22, 45-51 mm. Dark shadings on body. Three bands on posterior of body extending into the dorsal and anal fins. 5 distinct dark bands on tail.

OSTRACIIDAE

Ostracion cornutus Linnaeus. Cow Fish

Pago Pago, Tutuila Island, Samoa (1), April 15, 19 mm. This is the smallest specimen of this species we have seen. Color whitish, covered with scattered dark dots.

TETRODONTIDAE

Spheroides lunaris (Bloch and Schneider). Lunate Puffer

Suva, Fiji Islands (2), April 25, 36 mm.; Auki, Malaita Island (1), May 25, 54 mm.; Tulagi, Florida Island (3), May 19, 13–32 mm.

Canthigaster striolatus (Quoy and Gaimard). Puffer

Bellona Island (1), June 20, 32 mm.

Canthigaster margaritatus (Rüppell). Puffer

Rennell Island (1), June 12, 31 mm.; Suva, Fiji Islands (33), April 28, 20–23 mm.; Ugi Island (1), June 22, 23 mm.; Kau Kau, Guadalcanar Island (1), May 22, 15 mm.; Uras Cove, Malaita Island (1), May 28, 23 mm.

Tetrodon meleagris Bloch and Schneider. Puffer

Pago Pago, Samoa (1), April 15, 19 mm. So densely set with prickles as to look as if covered with fuzz, among which may be seen small white specks.

Tetrodon immaculatus Bloch and Schneider. Puffer

Pago Pago, Samoa (1, young), April 15, 30 mm.; Auki, Malaita Island (1), May 25, 8 mm.

Tetrodon manillensis Procé. Puffer

Suva, Fiji Islands (1), April 25, 119 mm. Gray with numerous narrow black lines from head to tail.

Tetrodon nigropunctatus Bloch and Schneider. Puffer

Suva, Fiji Islands (4), April 26, 10-18 mm.

Tetrodon hispidus Linnaeus. Puffer

Kau Kau, Guadalcanar Island (4), May 22, 21-23 mm.; Suva, Fiji Islands (30), April 28, 20-34 mm.

DIODONTIDAE

Diodon hystrix Linnaeus. Porcupine Fish

Rennell Island (1, young), June 12, 20 mm. Found in the mouth of a young Priacanthus.

ANTENNARIIDAE

Antennarius commersonii (Shaw). Fishing-frog

Bellona Island (4), June 22, 1.2 mm.

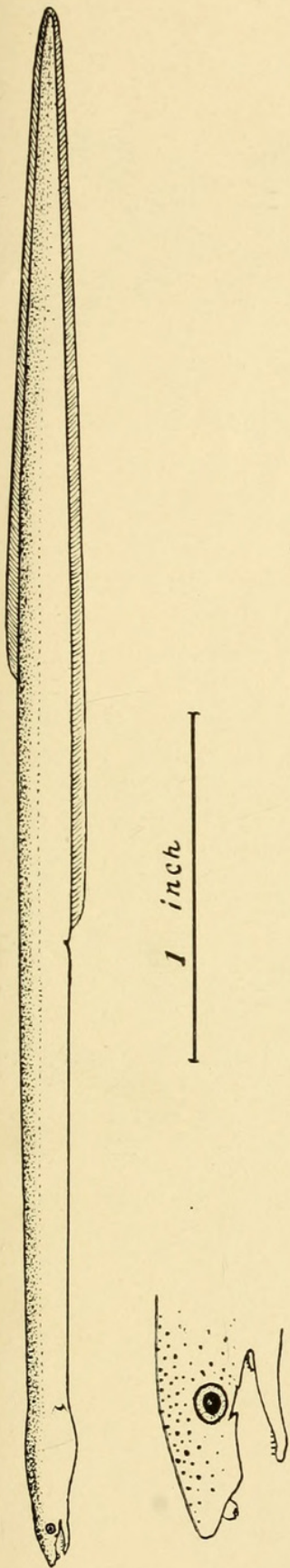


Fig. 1. *Muraenichthys malaita* Seale, sp. nov. Type

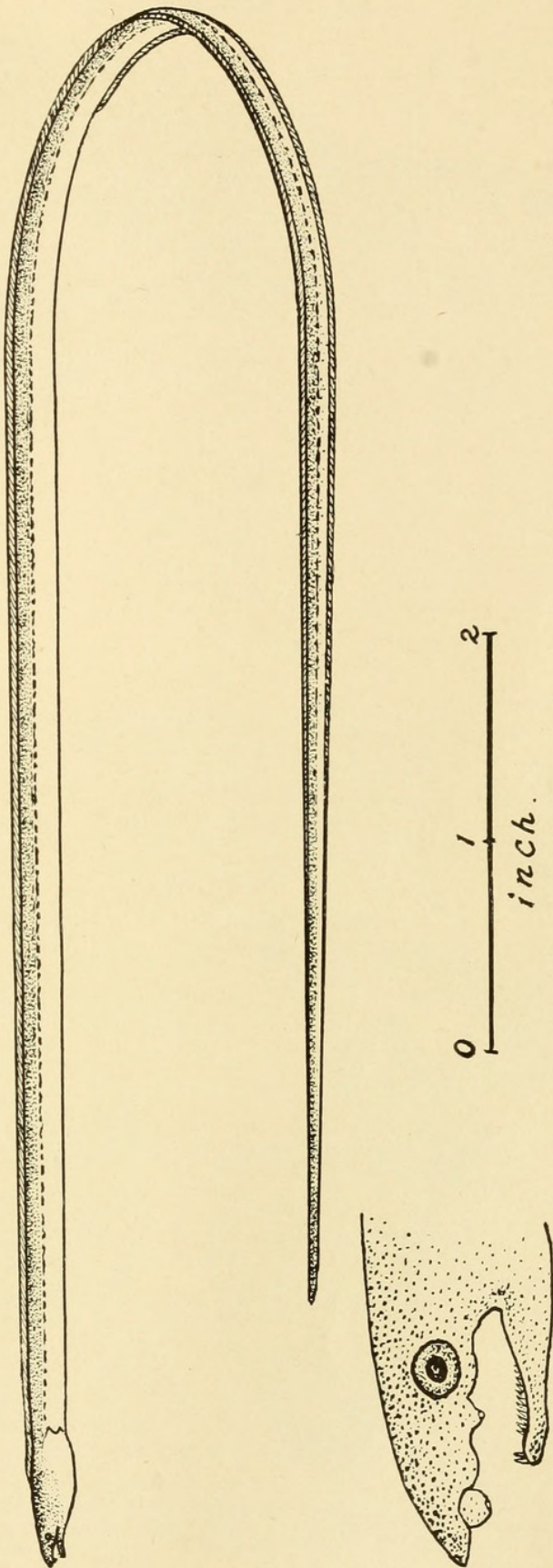


Fig. 2. *Callechelys fijiensis* Seale, sp. nov. Type

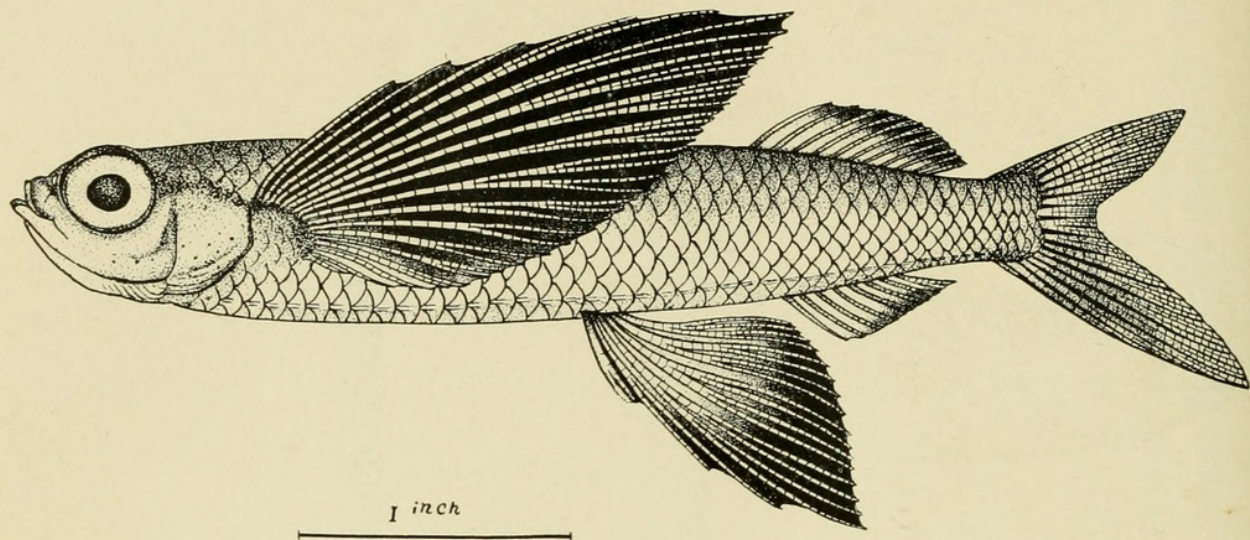


Fig. 1. *Cypselurus zaca* Seale, sp. nov. Type

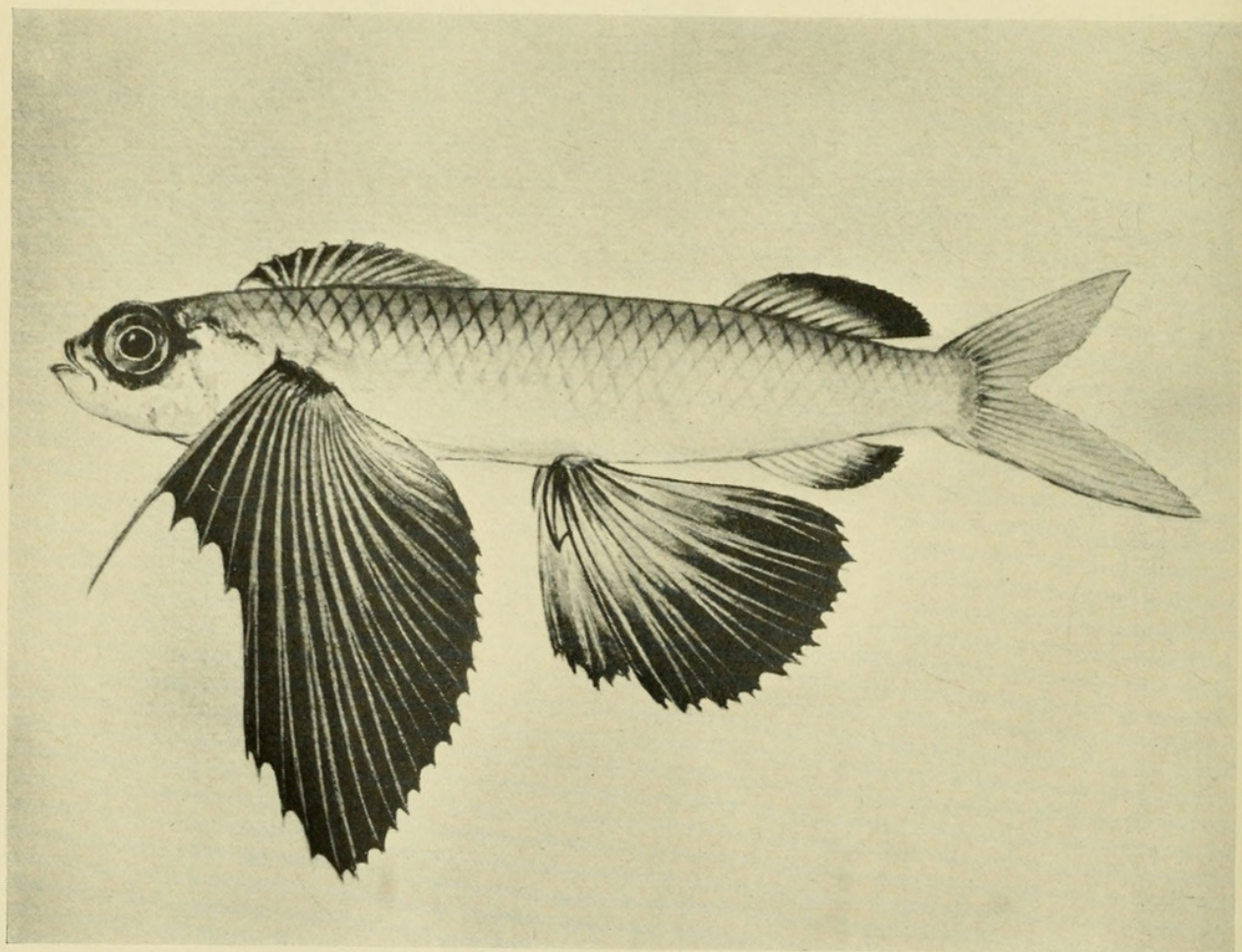


Fig. 2. *Cypselurus zaca* Seale, sp. nov. Paratype

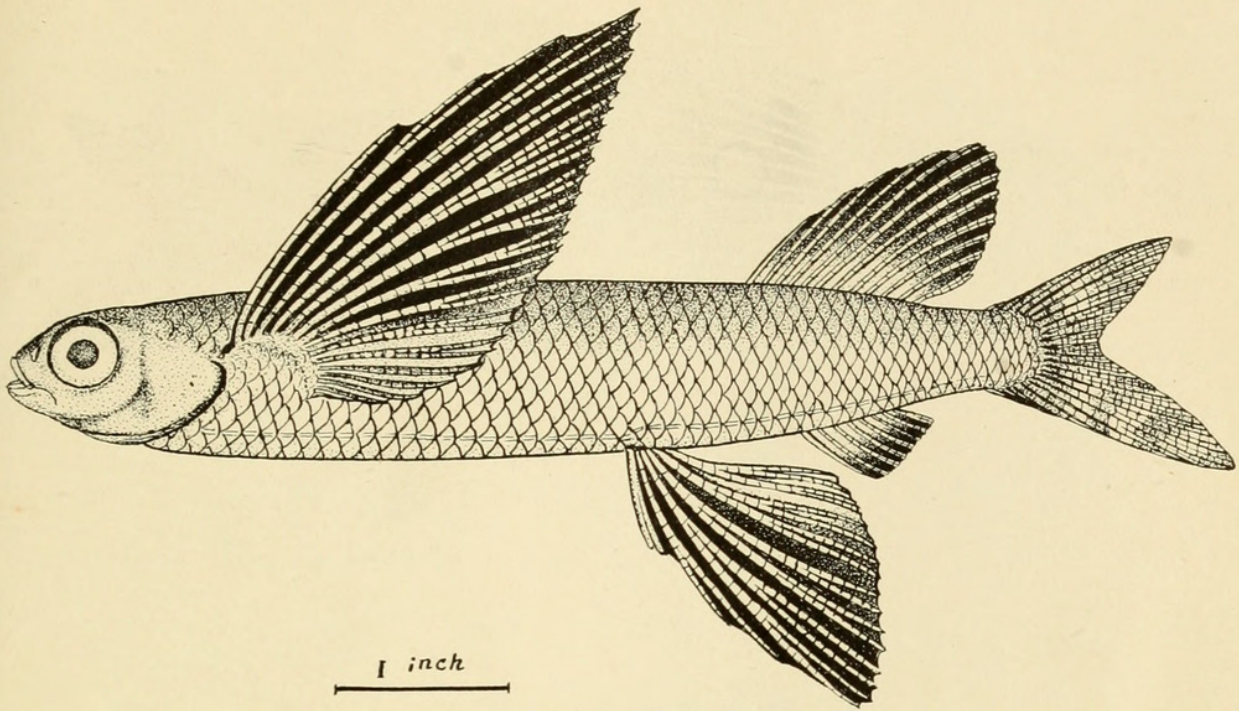


Fig. 1. *Cypselurus crockeri* Seale, sp. nov. Type

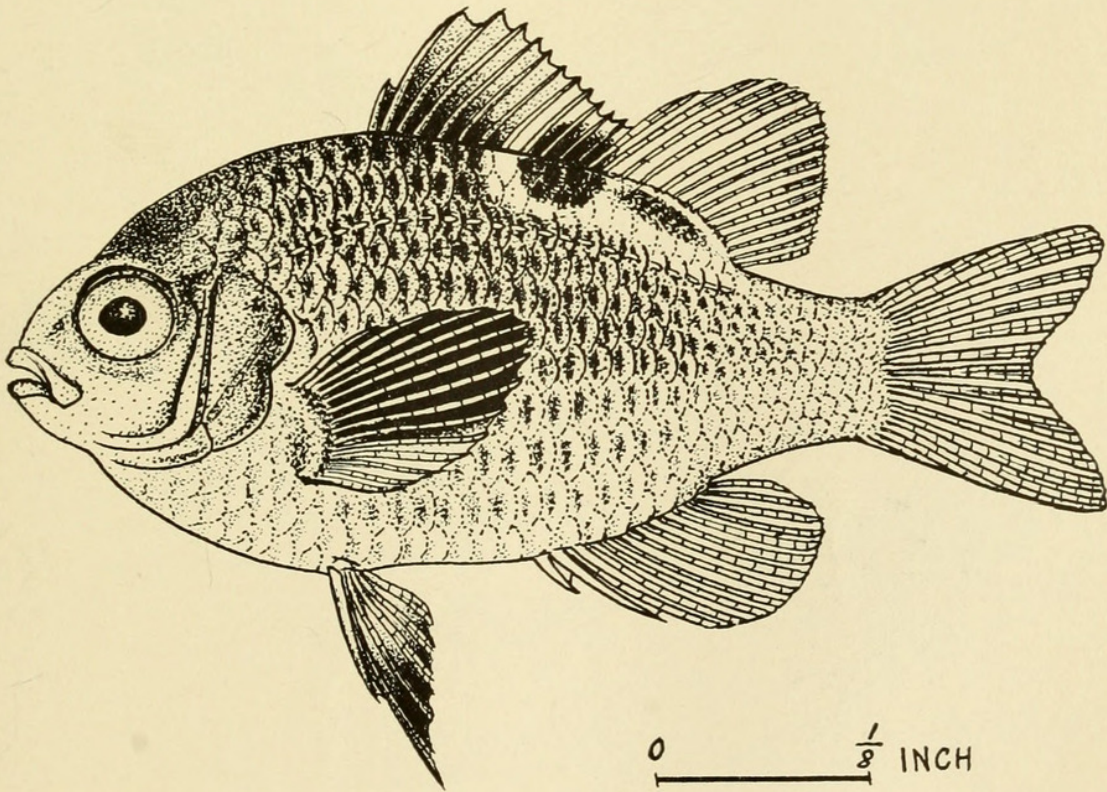
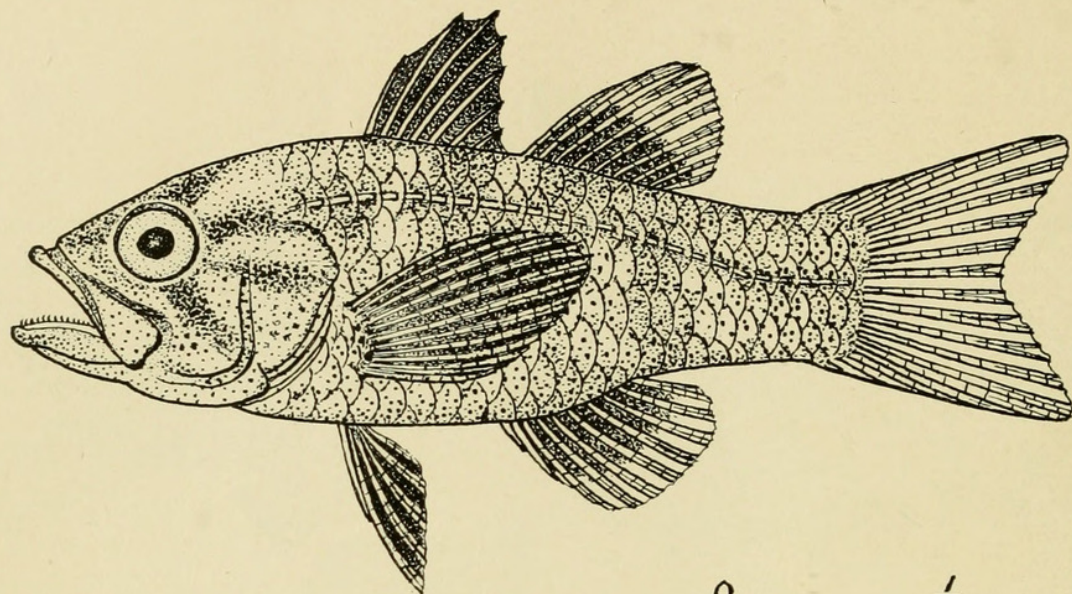
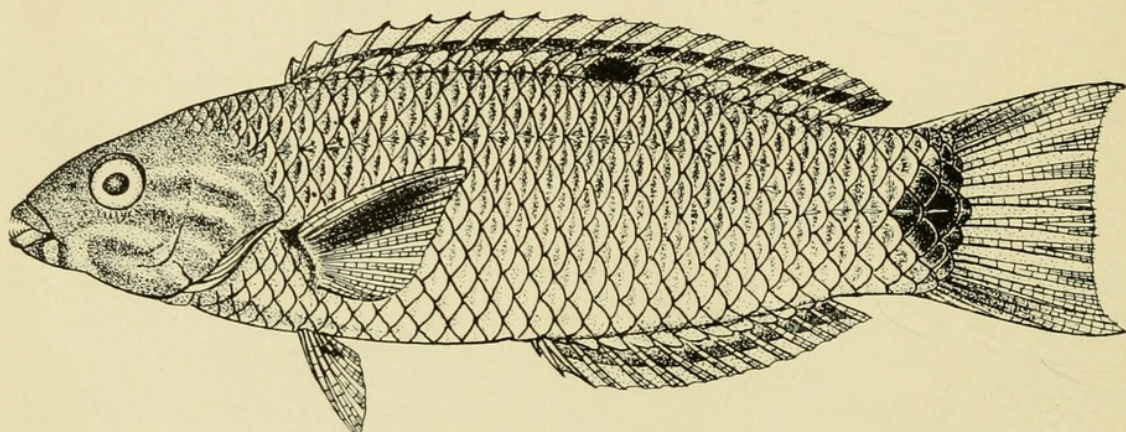


Fig. 2. *Abudegduf atrapinna* Seale, sp. nov. Type



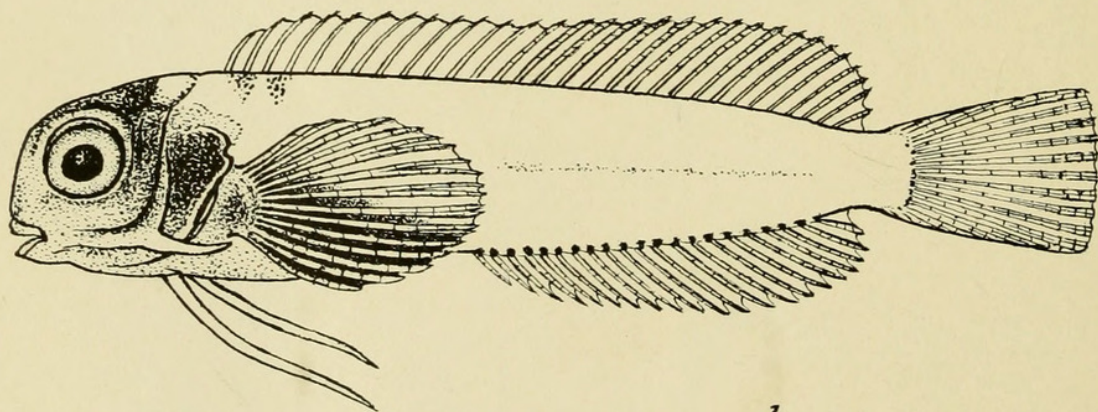
0 $\frac{1}{5}$ INCH

Fig. 1. *Apogon asaetae* Seale, sp. nov. Type



1 inch

Fig. 2. *Thalassoma herrei* Seale, sp. nov. Type



0 $\frac{1}{8}$ INCH

Fig. 3. *Hypleurochilus samoensis* Seale, sp. nov. Type



Seale, Alvin. 1935. "The Templeton Crocker Expedition to western Polynesian and Melanesian islands, 1933. No. 27. Fishes." *Proceedings of the California Academy of Sciences*, 4th series 21, 337–378.

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