

# AMERICAN MUSEUM NOVITATES

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY  
CITY OF NEW YORK      OCTOBER 29, 1952      NUMBER 1594

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## FOUR NEW GOBIES FROM THE EASTERN AND WESTERN PACIFIC

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This is to place on record as new, gobies from the Pacific that have been catalogued in the collections of the American Museum of Natural History a sufficiently long time without our being able to identify them. They come from the Solomon Islands, the Fiji group, and (two species) from Carmen Island in the Gulf of California.

A fifth (Oriental) species from Samoa seems to represent the first known occurrence in Oceania.

### ***Fagasa cassandrae*, new species**

Figure 1

DESCRIPTION OF TYPE: No. 18573, the American Museum of Natural History, from a fresh-water stream at Rendova, Solomon Islands, July, 1943, collected by W. G. Downs. Our only specimen.

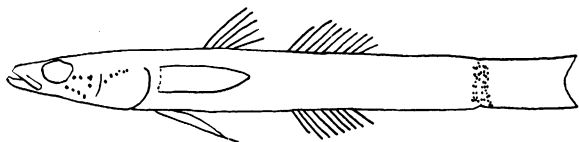


FIG. 1. *Fagasa cassandrae*, type. Standard length, 19 mm.

Length to base of caudal, 19 mm. Depth in this length, 7.4; head, 3.4. Eye in head, 4; snout, 4.5; interorbital, 8; maxillary, 4; depth of peduncle, 3; pectoral, 1.4; ventral, 1.4; caudal, 1.4.

Dorsal, V or VI - 9 or 10; anal, 8 or 9 (fins delicate, broken, rays possibly miscounted).

Body broadest at back of head, well compressed posteriorly. Mouth small; lower jaw projecting; maxillary barely reaching front of eye. Jaws with a series of conical teeth, varying in size, one or two in the front of the upper jaw largest, curved, and canine-like. Gill membranes adnate under middle of opercle, leaving a broad isthmus. Ventrals separate, close together, with filamentous tips; caudal narrow, its upper and lower margins in line with those of the compressed peduncle, its hind end emarginate; dorsals well separated. Small scales appreciable on sides forward to opposite dorsal interspace, about 40 thence to base of caudal, none developed on front part of body or on head.

Color pale, with larger and small dark punctulations, the larger forming two noticeable lines backward, and backward and downward, from the eye, also about 15 broad V's, pointing forward, across the side between the base of pectoral and the peduncle. A rather broad, mottled, dark cross bar at the base of the caudal.

Very like *Fagasa tutuilae* Schultz (1943, Bull. U. S. Natl. Mus. no. 180, p. 253, fig. 23) from the Samoan group. Its measurements match the figure rather better than the description of that fish; it has much longer ventrals and seemingly different dentition. These might be sex characters, but the antecedent probability is strong that it would be a different species.

### ***Ptereleotris evides* (Jordan and Hubbs)**

On the other hand, another small, in this case marine, eleotrine goby, from Mataatu Harbor, Savaii, Samoa, collected October 16, 1936, by the Second Templeton Crocker Pacific Expedition, is identified without hesitation with *Ptereleotris evides* described from Japan, presumably extending the known range of that species. It has been compared with the type description and figure of *evides*, from which it differs only in one more ray in dorsal and in anal fin. Dorsal, VI - 27; anal, 26.

### ***Gobius raveni*, new species**

An elongate goby with large ctenoid scales, scaleless head; good-sized eyes, placed high, close together; a good-sized mouth with fine teeth, the lower jaw slightly included; a long pointed caudal, and the second ray of the first dorsal ending in a more or less lengthened filament. Dorsal, VI - 11; anal 10; scales 34.

No conspicuous color markings, sparse dark spots on base of caudal characteristic.

DESCRIPTION OF TYPE: No. 18591, the American Museum of Natural History, from Fiji, May 4, 1939, collected by H. C. Raven. Length to base of caudal, 52 mm. Depth in this length, 5; head, 3.8; second ray of first dorsal with filament, 3; caudal, 2.6. Eye in head, 4; snout, 3.7; maxillary, 2.6; width of head, 1.6; depth of peduncle, 2; its length, 1.5; longest ray of second dorsal, about 1.3; of anal, about 1.4; pectoral, 1.2; ventral, 1.3. Interorbital in eye, 2.

Dorsal, VI-11; anal, 10. Scales, 34.

Body elongate, slightly compressed anteriorly (head deeper than wide), well compressed behind; upper outline slightly arched, lower approximately straight. Head blunt, profile rounding down from nape to narrow interorbital, rounding down steeply from eye to end of snout. Eyes good-sized, somewhat suprolateral, close together; mouth little oblique, maxillary to under front of pupil, lower jaw slightly included, teeth in jaws fine, end of tongue double-rounded, with a slight notch in the center; gill membranes adnate to broad isthmus under middle of opercle.

Ventral base slightly behind that of pectoral; origin of first dorsal slightly behind ventral base, equidistant between that of second dorsal and eye. Pectorals pointed, free united ventrals narrowly rounded. Second ray of first dorsal ending in a long filament; caudal cuneate, with a filamentous tip, its marginal rays conspicuously precurrent; second dorsal and anal similar, highest behind, the former reaching beyond, the latter just reaching first precurrent caudal ray, when depressed.

Scales on body irregular, ctenoid, large posteriorly, somewhat smaller anteriorly, very small, apparently cycloid on breast before ventrals, and on back before dorsal, where they extend forward in the midline to over the hind margin of the preopercle. Head scaleless; base of caudal with moderate-sized scales.

Color in preservative rather uniform pale brownish; a faint dark shade in the midline posteriorly, ending with one or two faint marks on the peduncle. Dorsals and base of caudal spotted with dark; narrow lower margin and end of caudal, also all but the base of anal, dusky; distal and central part of ventrals somewhat dusky.

There are two paratypes of 42 and 50 mm., which have the dorsal filament less developed, its ray shorter than the head.

***Hemieleotris carmenensis*, new species**

Recent examination of two tiny fishes, set aside as probably the young of some familiar species by Osburn and Nichols (1916, Bull. Amer. Mus. Nat. Hist., vol. 35, art. 16, pp. 139-181), shows them to represent an eleotrin goby differing from any known from the waters of the Gulf of California. So far as determinable they are very close to *Hemieleotris latifasciatus* (Meek and Hildebrand) from Pacific slope fresh water from Costa Rica to Panama. They are presumably not that fish (though the only considerable tangible difference from it is absence of any dark band along the side) and are hence described as new. They were taken with the seine, probably in salt water with various marine fishes.

DESCRIPTION OF TYPE: No. 18724, the American Museum of Natural History, from Carmen Island, Gulf of California, April 3, 1911, collected by the Albatross Lower California Expedition.

Length to base of caudal, 19 mm. Depth in this length, 3.8, head, 3.1. Eye, snout, and maxillary about equal, and 3.7 in head; pectoral and ventral, each about 1.5, width of head in its depth, 1.5.

Dorsal, VI - 9; anal, 9. Scales 35.

Head and body compressed, head rather pointed, mouth oblique. Agrees in body and fin form with the figure of *H. latifasciatus* (Meek and Hildebrand, 1916, Field Mus. Nat. Hist., zool. ser., vol. 10, pl. 32, opp. p. 365), except that the front of the first dorsal is not high and exserted.

Color pale, unmarked except that the first dorsal is dusky.

The second specimen is less well preserved and measures 17 mm. standard length.

***Microgobius cinctus*, new species**

Figure 2

A *Microgobius* with rather small subvertical mouth, a low narrow ridge in the midline of the top of the head and nape; first dorsal with lengthened filamentous rays, anal appreciably shorter than second dorsal; scales about 55; and a few narrow dark vertical stripes across the head and anterior sides.

DESCRIPTION OF TYPE: No. 18725, the American Museum of Natural History, from Carmen Island, Gulf of California, April 3, 1911, collected by the Albatross Lower California Expedition.

Length to base of caudal, 22 mm. Depth in this length, 5; head, 4.5. Eye in head, 3.1; snout, 5; maxillary, 2.9; caudal, 1.1. Interorbital in eye, 1.5.

Dorsal, VI or VII (VII in the paratype) - 16 or 17; anal 12. Scales about 55.

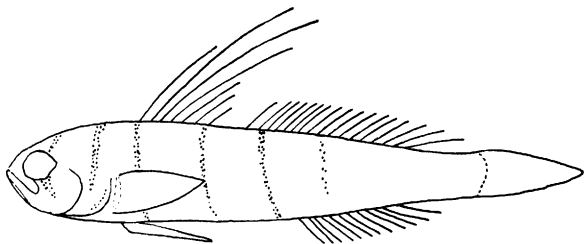


FIG. 2. *Microgobius cinctus*, type. Standard length, 22 mm.

Head and body compressed; head deep, blunt, profile rounded; a low ridge in the midline from in front of the eye to the origin of the dorsal fin. Mouth rather small, very oblique (subvertical), lower jaw projecting, maxillary about to under center of eye. Several rays of the first dorsal lengthened and filamentous, the longest reaching to beyond the middle of the second dorsal base when depressed; caudal rather short, pointed. Scales rather small, ctenoid, forward on sides to upper corner of pectoral base, but absent on the back before the dorsal.

Color pale, marked with dark about the eye, and with five narrow, dark, vertical stripes from the dorsal midline down across the sides. From the eye, a dark band extends upward and backward to the top of the head, and a dark triangle has one apex downward across the cheek. The first cross stripe extends from the nape across the operculum; the second runs from the origin of the first dorsal behind the pectoral base; and the fifth downward from the middle of the base of the second dorsal. The last three are progressively narrower and fainter.

There is one paratype of 19 mm.

