

DESCRIPTIONS OF SIX NEW SPECIES OF FISHES FROM
JAPAN.

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Of Stanford University, California.

The species noted in the present paper were obtained in Japan in 1900, by Professors Jordan and Snyder.

The accompanying drawings are the work of Mr. William S. Atkinson.

Family CYPRINIDÆ.

PHOXINUS SEPTENTRIONALIS Jordan and Seale, new species.

Head, 3.75 in length (without caudal); depth, 4.50; eye, 3.50 in head; snout, 3.50; D. 9; A. 11; interorbital area, 3, wider than eye; scales about 70. Teeth, 2, 5.

Body oblong, moderately compressed; snout evenly rounded; depth of caudal peduncle, 3 in head; mouth small, with thin lips; no barbels;

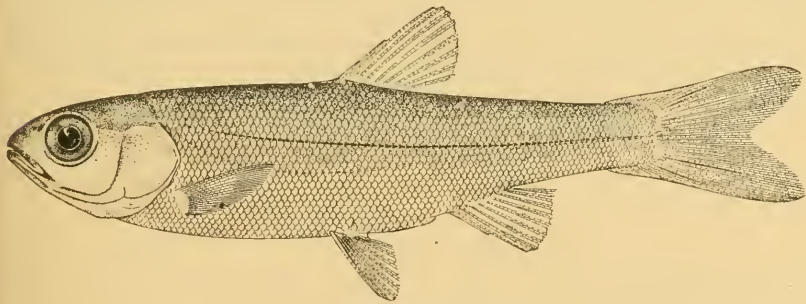


FIG. 1.—*PHOXINUS SEPTENTRIONALIS*.

maxillary scarcely reaching front of eye; gill-rakers short and flat, 8 on lower limb; lateral line extending abruptly downward and backward to above middle of pectoral, ceasing near the middle of body.

Origin of dorsal midway between front of eye and base of caudal, the longest ray, 1.50 in head; ventrals inserted under front of dorsal; pectoral equal to postorbital part of head; caudal forked, 1.20 in head.

Color, in spirits, yellowish white; a narrow but distinct dark line on side from middle of caudal anteriorly to first third of body; fins all pale.

Twelve specimens of this minnow were obtained in a small stream at Agmori, in northern Japan. Length, 1.70 inches.

Type.—Cat. No. 53411, U.S.N.M.

Cotypes.—No. 9257, Stanford University.

LEUCISCUS CÆRULESCENS Sauvage.

Of this species, originally described from Lake Biwa, we have two examples from Kawatana, near Nagasaki. These were overlooked in the review of Japanese Cyprinidae by Jordan and Fowler.^a

RHODEUS ORYZÆ Jordan and Seale, new species.

Head, 3.75 in length (without caudal); depth, 2.50; eye, 2.75 in head; D, 10; A, 12; pharyngeal teeth, 5, hooked; scales, 11-32; lateral line sloping downward and backward to above or somewhat behind ventrals, where it ceases.

Body deep, compressed; snout short, shorter than eye, which is equal to interorbital width; mouth small, the maxillary not reaching

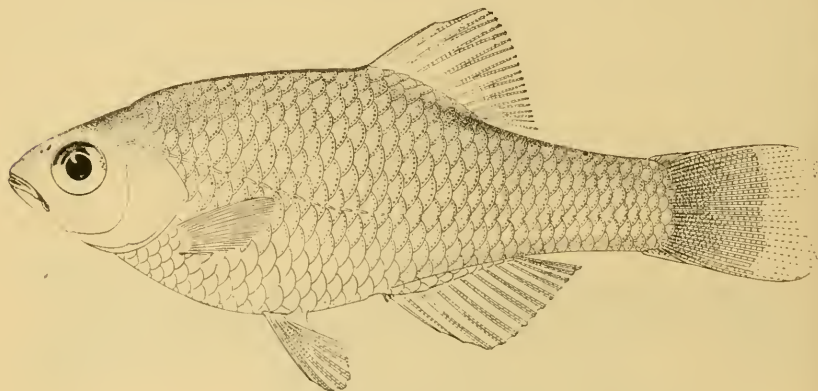


FIG. 2.—RHODEUS ORYZÆ.

front of eye, its tip with a distinct barbel; scales firm; front of dorsal nearer snout than base of caudal; ventrals below tip of pectoral, which is 1.35 in head; caudal about equal to head.

Color, in spirits, yellowish; the margins of the scales above, slightly darker; a dark stripe from nuchal region to front of dorsal; a golden shade on opercle; fins yellowish, unmarked.

Seven specimens, the largest an inch long, were taken in a ditch in a rice field at Kawatana, northwest of Nagasaki, in the island of Kiu-siu, in Japan. It is found in company with the small Cyprinodont, *Aplocheilichthys latipes*, which it somewhat resembles. This species is

^aProc. U. S. Nat. Mus., XXVI, 1903, p. 845.

related to the Chinese *Rhodeus ocellatus*, and both seem to belong to the European genus, *Rhodeus*.

Type.—Cat. No. 53412, U.S.N.M.

Cotypes.—No. 9258, Stanford University.

SAYONARA Jordan and Seale, new genus.

The genus *Sayonara* is related to *Anthias*, and may be thus characterized:

Body robust, covered with ciliated scales; lateral line complete, running high, its tubules simple; maxillary and jaws scaly; no supplemental maxillary; no teeth on pterygoids or tongue; preopercle serrated, without plectroid spines; gill-rakers short; dorsal notched, the spines ten, all low, first and last short; no filamentous rays; pectorals long, unsymmetrical, the rays branched; ventrals slightly before pectorals; caudal fin convex.

Type.—*Sayonara satsumæ*.

SAYONARA SATSUMÆ Jordan and Seale, new species.

Head, 2.30 in length (to base of caudal); depth, 2.80; eye, 4.80 in head; snout, 4; D. X, 15; A. III, 7; scales, 33.

Body rather short, not greatly compressed; depth of caudal pedun-

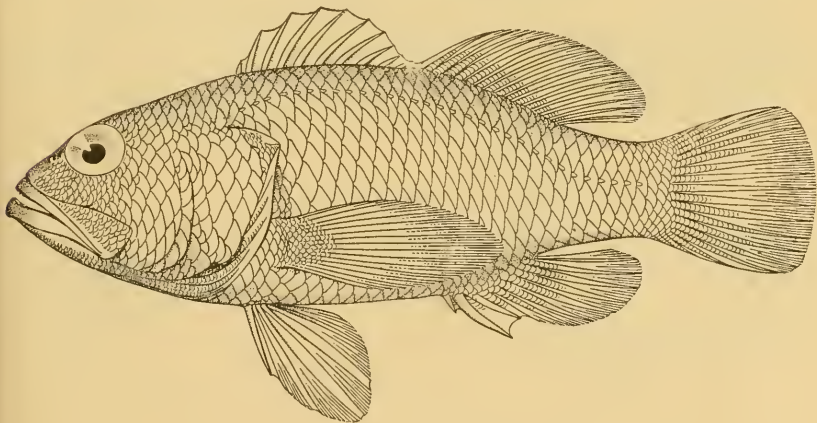


FIG. 3.—*SAYONARA SATSUMÆ*.

cle 2.90 in head; mouth large, the maxillary extending to below posterior margin of eye, its distal breadth 1.50 in eye; minute teeth on jaws, vomer, palatines, none on pterygoids or tongue; upper jaw with four enlarged teeth; gill-rakers short and blunt, 7 + 10, the five outermost, above and below, rudimentary; maxillary, lower jaw, and forehead scaly; no supplemental maxillary bone; preopercle and lower margin of interopercle and preopercle evenly serrated; no plectroid spines on preopercle; opercle with three short, flat spines, scales large, ciliated, equidistant, the middle one largest, lateral line complete, running high; tubules short, simple. Soft rays scaly at base,

Front of spinous dorsal slightly in advance of pectorals, the spines low; the third slightly longest, 3.75, in head; the fourth and fifth similar, the others gradually shorter to the tenth, the higher eleventh being a soft ray; soft dorsal high, the longest ray, 2.10 in head; base of soft dorsal, 1.75 in head; longest anal ray, 2.30 in head, its base, 1.25 in the longest ray; second anal spine the longest and strongest, slightly greater than length of snout; pectoral very long, unsymmetrical, its lower rays extending to middle of anal, 1.20 in head; the rays branched; origin of ventrals slightly before upper axil of pectorals, their tip reaching nearly to vent, their length, 1.70 in head; caudal rounded, 1.60 in head.

Color, evidently bright red in life. In spirits, yellowish white, with about three very indistinct whitish longitudinal stripes on side; fins pale, unmarked.

One specimen, 6.25 inches long, No. 9259 Stanford University, was taken at Yamagawa, in the province of Satsuma, near Kagoshima, by Dr. Kakichi Mitsukuri, by whom it was presented to Stanford University.

STELGISTRUM MORORANE Jordan and Seale, new species.

Head, 2.75 in length (without caudal); depth, 4; eye, 3.50 in head; D. IX-16; A. 11; scales 38; a row of about 28 modified toothed scales along base of dorsals.

Head large; snout pointed, equal to eye; mouth rather large, the

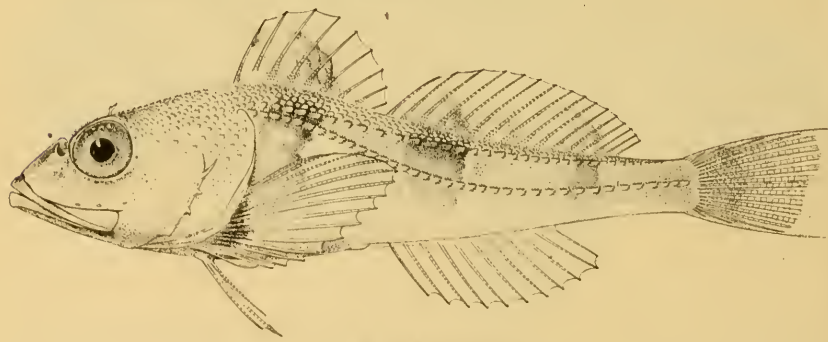


FIG. 1.—*STELGISTRUM MORORANE*.

maxillary extending below posterior third of eye; jaws even; bands of minute teeth on jaws and vomer, none on palatines; preopercle with 4 rather small spines, the upper and longest curved upward, the second directed backward, the others downward and forward; opercle roughened but unarmed; four large pores on under jaw; gill-rakers reduced to blunt, prickly processes, 7 on lower limb; mucous pores about eye large and distinct; head roughened with small prickles.

Origin of dorsal above axil of pectoral; fourth dorsal spine longest, 2.75 in head; pectoral, 1.30 in head; ventrals slightly before pectorals, 2 in head; caudal, 1.75 in head.

Color, in spirits, yellowish white, with three wide brown bands which extend over back and obliquely forward on sides; a dusky blotch at base of caudal; a distinct brownish blotch on lower part of base of pectoral; fins uniform pale.

One specimen, 1.25 inches long, No. 9260, Stanford University, was dredged in the harbor of Mororan, island of Hokkaido.

RHINOGOBIUS NAGOYÆ Jordan and Seale, new species.

Head, 3 in length (without caudal); depth, 6.20; eye, 5 in head; D. VI-9; A. 10; scales 35.

Body moderately elongate, compressed; depth of caudal peduncle, 2.85 in head; snout, 2.75 in head, rather rounded and depressed; depth of head, through pupil 2.40 in its length; greatest width, 1.50;

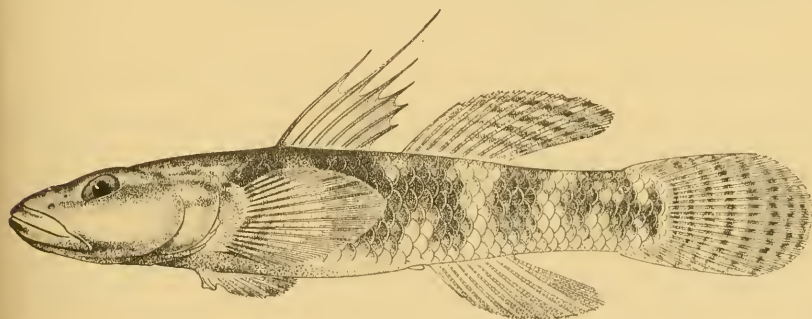


FIG. 5.—RHINOGOBIUS NAGOYÆ.

cheeks and opercles naked; nuchal region naked; interorbital space narrow about twice pupil; mouth large, the maxillary reaching front of orbit; jaws with three rows of short curved teeth; tongue rounded; gillrakers short and thick, 10 on lower limb; dorsal with the first four spines elongate and filiform, the longest, 1.10 in head; posterior rays of soft dorsal longest, 1.50 in head; longest anal ray, 1.75; pectoral, 1.30 in head, none of the rays silk like; ventrals, 2.20 in head; caudal rounded, 1.50 in head.

Color, in spirits yellowish, with about 5 rather indistinct vertical brown bars wider than the interspaces; two lines at base of pectoral; spinous dorsal slightly clouded with bluish; soft dorsal with four longitudinal stripes; caudal with 8 vertical brown bars, the one at base shorter, wider, and darker colored than the others; anal white, clouded with bluish, pectoral and ventral white.

One specimen, 2.55 inches long, No. 9262, Stanford University, was sent from Nagoya, Japan, by Professor Keinosuke Otaki.

CALLIONYMUS KITAHARÆ Jordan and Seale, new species.

Head, 3.55 in length (without caudal); depth, 9; eye, 2.50 in head; D. IV-9; A. 9; snout, 3 in head.

Preopercular spine with four curved hooks on upper side, and a spine turned downward and forward at base; distance from tip to tip of preopercular spines equal to length of head; depth of head equal to diameter of orbit; head pointed anteriorly; mouth small, with small teeth; gill-opening a small aperture at upper edge of opercle.

Dorsal spines low, the first or longest scarcely greater than eye, the

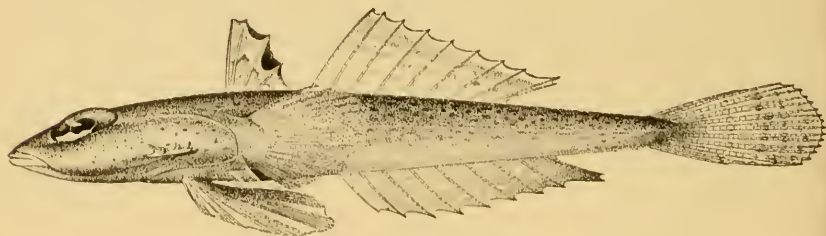


FIG. 6.—CALLIONYMUS KITAHARÆ.

fin triangular in form, the other spines gradually shortened; pectoral 1.40 in head; ventrals, 1.50 in head; caudal pointed, 1.10 in head.

Color, in spirits, uniform slaty brown, a shade paler on nuchal region; fins colored like the body.

A single specimen, No. 9261, Stanford University, 1.50 inches long, was taken in the harbor of Nagasaki. It resembles *Callionymus beniteguri*, but seems to be distinct. It is named for Mr. T. Kitahara, of the Imperial Bureau of Fisheries.