

Family TETRODONTIDÆ.

269. *Cirrhisomus politus* (Ayres) J. & G.

Not obtained by us. A specimen in collection of California Academy, from San Diego.

Family DIODONTIDÆ.

270. *Diodon maculatus* Lac.

One specimen, from near San Diego.

Family ORTHAGORISCIDÆ.

271. *Mola rotunda* Cuvier.—*Sunfish*; *Mola*.

Abundant in Santa Barbara Channel in summer; often seen playing near the surface, and even leaping from the water; not often taken, as they are not easily caught and not used for food. Reaches a weight of 200 pounds or more.

UNITED STATES NATIONAL MUSEUM,
December 1, 1880.

DESCRIPTION OF SEBASTICHTHYS MYSTINUS.

By DAVID S. JORDAN and CHARLES H. GILBERT.

Sebastichthys mystinus.

Sebastes variabilis Ayres, Proc. Cal. Acad. Nat. Sci. i, 7, 1854 (not of Pallas, = *Epinephelus ciliatus* Tilesius).

Sebastes melanops Ayres, Proc. Cal. Acad. Nat. Sci. ii, 216 (in part; probably not the figure 66, which more resembles *S. melanops*; not *Sebastes melanops* Girard, = *Sebastosomus simulans* Gill).

Sebastichthys melanops Jordan & Gilbert, Proc. U. S. Nat. Mus. iii, 1880, 289, and elsewhere.

Sebastichthys mystinus Jordan & Gilbert, Proc. U. S. Nat. Mus. iii, 1880, 445; 1881, 8.

Two species have been confounded by previous writers under the name of *Sebastes* or *Sebastosomus melanops*. The one, darker in color, with smaller mouth and black peritoneum, is found from Puget Sound to San Diego, being most common southward, and is perhaps the most abundant species of the genus on the coast. The other, paler and more spotted, with larger mouth and white peritoneum, ranges from Monterey to Sitka, being most common northward. The first is the "Pêche Prêtre" of the Monterey fishermen, the second the "Black Bass" of the anglers of Puget Sound. The first is referred to by us as *Sebastichthys melanops* on page 289 and elsewhere in these Proceedings (Vol. III); the second as *Sebastichthys simulans*. The original description by Girard of his *Sebastes melanops*, however, can refer only to the second fish, as is shown by the following statements (U. S. Pac. R. R. Expl. Fishes, 81):

"Upper surface of head spineless;" "the posterior extremity of the maxillary, very much dilated, extends to a vertical line drawn inwardly to the posterior rim of the orbit." "The pectorals are broad; * * * the tip of these fins extends almost as far as the tip of the ventrals." "The upper surface of the head and of the dorsal region above the lateral line are almost black, or else of a purplish black. The side of the body is yellowish, with an irregular purplish black spot upon nearly all the scales. The side of the head is of a lighter purplish black. The inferior region is of a soiled yellow, though of a metallic hue. The fins are unicolor, of dark purple tint." The "Pêche Prêtre" has a preorbital protuberance, which usually ends in a spine; the "Black Bass" has neither protuberance nor spine. The mouth is smaller in the "Pêche Prêtre", the maxillary barely extending to the posterior margin of the pupil. The pectoral fins are longer in the "Pêche Prêtre", extending past the tips of the ventrals; in the other not so far. And, finally, omitting the expression "purplish", which scarcely applies to any rock-fish, the account of the color describes the "Black Bass", but not the "Pêche Prêtre".

Furthermore, the original type of Girard's description, the large specimen from Astoria, is still preserved in the National Museum, and its identity with the species formerly called by us *S. simulans* is undoubted. The original type of the name *Sebastosomus simulans* is also preserved. It belongs to the same species, differing only in having the lower opercular spine somewhat less conspicuous than usual. The northern fish, the "Black Bass" of Puget Sound, must, therefore, retain the name of *Sebastichthys melanops*, of which name *simulans* is a synonym, while the "Pêche Prêtre" may receive the new name of *Sebastichthys mystinus*. *Sebastichthys ciliatus* (*Epincylhelus ciliatus* Tilesius = *Perca variabilis* Pallas) is related to both species, but distinct from both, having the black peritoneum of *mystinus*, but lacking the bulge of the preorbital region. The mouth is larger than in *mystinus*, but smaller than in *melanops*, while the coloration is different from both.

DESCRIPTION OF SEBASTICHTHYS MYSTINUS.

Body oval-oblong, compressed, both dorsal and ventral outline evenly curved. Head conic, compressed, the profile almost straight. Mouth comparatively small, oblique, the lower jaw protruding; mouth entirely below the axis of the body; premaxillaries on the line of the lower rim of the orbit; maxillary thickly scaled, reaching to opposite posterior margin of pupil; mandible scaly.

Top of head without spines, with the exception of the very small nasal pair, and sometimes a preocular pair; the interorbital space perfectly arched, and the entire top of the head covered with very small, crowded scales; the preocular ridge forming a projection over the upper anterior angle of the orbit. The forehead between the preocular ridges is notably full and convex. The occipital ridge forms two slightly di-

verging ridges under the scales. Preorbital with a small spine, which is sometimes obsolete.

Preopercle with rather strong spines, the two at the angle longest. Opercle with two strong spines. Suprascapular spines present.

Gill-rakers numerous, long and very strong, their length half the diameter of the eye, their number about $\frac{9}{23}$.

Scales smaller than in most of the species, in about 66 transverse series.

Spinous dorsal low, the fourth to seventh spines highest, all lower than the soft dorsal, the fin not deeply emarginate. Third anal spine slightly longer than the second, but not so strong. Caudal fin emarginate. Pectoral fins long, reaching beyond the tips of the ventrals to the base of the tenth dorsal spine. Ventrals not reaching to the vent.

Fin rays: D. XII, I, 15; A. III, 9.

Color slaty black, becoming lighter below the lateral line. Belly scarcely pale. Sides often somewhat mottled. Tip of lower jaw black. Top of head with three indistinct cross-bars: one in front of eyes, continued around anterior rim of orbit, and extending backwards across the cheeks; one between the orbits, reappearing below in a second oblique cheek-band; the third across occiput, extending obliquely backwards to the upper angle of the opercle. Fins plain dusky.

Peritoneum black, as in *S. ovalis*, *S. entomelas*, and *S. ciliatus*. In *S. melanops* and its near relative *S. flavidus* the peritoneum is always white.

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DESCRIPTION OF A NEW SPECIES OF PTYCHOCHEILUS (PTYCHOCHEILUS HARFORDI), FROM SACRAMENTO RIVER.

By DAVID S. JORDAN and CHARLES H. GILBERT.

Ptychocheilus harfordi, sp. nov.

Allied to *Pt. oregonensis* (Rich.), but with much smaller scales.

Body long and slender, little compressed, the back not elevated, the caudal peduncle large and stout. Greatest depth of body contained $5\frac{3}{4}$ times in its length from snout to base of caudal. Head long, pike-like, subconic, rather slender, broad and depressed above. Length of head contained 4 times in length to base of caudal. Mouth terminal, oblique, the lower jaw somewhat projecting. Premaxillary anteriorly on the level of the eye. Maxillary, as in other species, closely adherent to the preorbital, except near its end, where it slips under the preorbital, its tip extending just beyond the vertical from the front of the eye. Length of cleft of mouth contained $2\frac{3}{8}$ times in length of head. Interorbital width $3\frac{3}{4}$ times in the length of head. Eye small, placed high, its diameter contained 3 times in the length of the snout, 10 times in that of the head. Cheeks very broad. Lips normal, as in other species of the