

NOTES ON FISHES COLLECTED AT GUAYMAS, MEXICO, BY MR. H. F. EMERIC, WITH A DESCRIPTION OF *Gobiosoma histrio*, A NEW SPECIES.

By DAVID S. JORDAN.

The National Museum has lately received from Mr. H. F. Emeric a bottle containing four species of fishes from Guaymas, Mexico. Two of these species are especially interesting, one being new to science, and the other hitherto of unknown habitat and unrepresented in the U. S. National Museum.

1. *Myrophis vafer*, Jordan & Gilbert (35145).

One large specimen, agreeing closely with the original description. Head 9 in length.

2. *Gobius soporator*, C. & V.

One small specimen.

3. *Gobiosoma histrio*, sp. nov. (35147).

Head,  $3\frac{1}{4}$  in length (4 with caudal); depth,  $5\frac{4}{5}$ ; dorsal rays, VII-13; anal, 12; length of type, 2 inches.

Body not much elongate, depressed posteriorly; the snout low, little obtuse; mouth large, rather oblique, the maxillary reaching to below the front of the small eye, which is  $4\frac{2}{3}$  in head; maxillary  $2\frac{2}{3}$  in head; teeth rather small, in a moderate band below, in one or two series above, the outer teeth enlarged.

Body everywhere smooth and scaleless. Fins all low. Longest dorsal spine about two-fifths length of head. Caudal  $1\frac{1}{4}$  in head, pectoral  $1\frac{1}{5}$ .

Color, in spirits, blackish, with six white cross-bands sharply defined, the first at front of spinous dorsal, the second a little behind middle of dorsal, the third between the dorsal fins, the fourth and fifth below second dorsal, the sixth fainter, on the caudal peduncle, second and third bands slightly broadened and turned backward above, below the dorsal. All these bands are about as broad as eye, and all reach the belly, but do not pass around it. Lower parts everywhere finely punctulate. Top and sides of head freckled with paler. A distinct blackish lunate blotch on base of pectoral; a much fainter one at base of caudal. Fins plain, except that the pale cross-bands from the body extend on the dorsal. A dusky longitudinal blotch on upper part of cheeks.

This species is very different from *G. ios* Jor. & Gilb., *G. longipinne* Steindachner, and *G. zosterurum* Jor. & Gilb., the only species of the genus yet known from the Pacific coast of North America.

4. *Parophrys leopardinus*, (Günther). (35146).

(*Rhomboidichthys leopardinus*, Günther, Cat. Fishes, iv, 434.)

A specimen  $2\frac{2}{3}$  inches long, not in very good condition. It agrees fully with Dr. Günther's description, above cited. The original type

of the species came from the Haslar collection, its habitat being unknown.

Head,  $3\frac{3}{4}$  in length; depth,  $1\frac{3}{4}$ . D. circa, 88 (injured); A. 64 (62 to 66). Lat. l. about 80. Mouth very small, the maxillary  $3\frac{4}{5}$  in head. Interorbital space concave, rather broad, its width  $3\frac{1}{2}$  in head. Eyes large, the lower considerably before the upper; its diameter  $3\frac{1}{2}$  in head.

Lateral line with a short sharp curve anteriorly. Gill-rakers very small. Anterior rays of dorsal not elevated. Left pectoral not produced, little longer than right,  $1\frac{1}{4}$  in head.

Coloration highly variegated with different shades of gray, the pale blotches rounded, very irregular in size and position. No distinct black spots along the lateral line. A large whitish cloud between the eyes.

Blind side pale, scaled like the eyed side.

U. S. NATIONAL MUSEUM, July 28, 1884.

## A REVIEW OF THE AMERICAN SPECIES OF MARINE MUGILIDÆ.

By DAVID S. JORDAN and JOSEPH SWAIN.

In the present paper is given the synonymy of the species of *Mugilidæ* known to inhabit the salt and brackish waters of America, with analytical keys by which the species and genera may be distinguished. Five of the species of *Mugil* are also described in full.

The marine *Mugilidæ* of America fall naturally into three genera, which may be thus distinguished:

- a. Anal spines three; teeth ciliiform, flexible; stomach muscular, gizzard-like.
  - b. Cleft of mouth chiefly anterior; lower jaw broad; cilia in one or few series. MUGIL, 1.
  - bb. Cleft of mouth lateral; lower jaw narrow; cilia in very many series, pavement-like; upper lip very thick; no adipose eyelid; vertical fins scaly. CHÆNOMUGIL, 2.
- aa. Anal spines two, the first soft ray simple, but distinctly articulate; teeth distinct, scarcely ciliiform; lips thin; no adipose eyelid; vertical fins, not scaly; stomach muscular, gizzard-like. QUERIMANA, 3.

### Genus 1.—MUGIL.

**Mugil**, (Artedi, Genera, 32) Linnæus, Syst. Nat., ed. x, 1758, 316 (*cephalus*).

**Liza**, Jordan & Swain (subgenus nova) (*capito*).

The species of the genus seem to fall into two natural groups, the one having the eye largely covered by a transparent adipose eyelid, the other group having the eyelid obsolete. These groups should apparently rank as subgenera. The type of the genus *Mugil*, *M. cephalus*, as now understood, belongs to the first of these groups, which should retain the name *Mugil*. The other group may receive the name of *Liza*, a name almost universal among Spanish-speaking people for the different species of mullet. All the American species belong to the subgenus *Mugil*, the species of *Liza* being confined to the Old World. Of the latter group,