

The types of the following species described by Professor Gill, from the present collection, appear to be lost:

<i>Centropomus armatus</i>	= <i>Centropomus armatus</i> Gill.
<i>Amblyscion argenteus</i>	= <i>Larimus argenteus</i> (Gill) J. & G.
<i>Exocoëtus dowii</i>	= <i>Exocoëtus dowi</i> Gill.
<i>Upeneus grandisquamis</i>	= <i>Upeneus grandisquamis</i> Gill.
<i>Trichidion opercularis</i>	= <i>Polynemus opercularis</i> (Gill) Gthr.
<i>Mugil guentherii</i>	= <i>Mugil albula</i> L. (<i>Mexicanus</i> Steind).
<i>Leptarius dowii</i>	= <i>Arius dowi</i> (Gill) Gthr.
<i>Sciades troschelii</i>	= <i>Arius</i> Sp.
<i>Aelurichthys panamensis</i>	= <i>Aelurichthys panamensis</i> Gill.
<i>Atractosteus tropicus</i>	= <i>Lepidosteus tropicus</i> (Gill) Gthr.
<i>Urotrygon mundus</i>	= <i>Urolophus mundus</i> (Gill) Gthr.

All these species are now represented in the National Museum, with the exception of *Sciades troschelii* and *Urotrygon mundus*, which remain unidentified.

UNITED STATES NATIONAL MUSEUM, July 4, 1882.

**LIST OF A COLLECTION OF FISHES MADE BY MR. L. BELDING NEAR
CAPE SAN LUCAS, LOWER CALIFORNIA.**

By DAVID S. JORDAN and CHARLES H. GILBERT.

1. *Muraena dovii* Günther.
(*Muraena pintita* Jor. & Gilb.)

30486. A young specimen from Espiritu Santo Island, agreeing fairly with the original description of *Muraena pintita*, but the tail slightly shorter than the rest of the body. There are a few small yellowish spots on the posterior part of the head, similar to those on the body, which are not very numerous.

We have examined two very large eels (19893) collected by Captain Herendeen at the Galapagos Islands. They seem to be referable to *Muraena dovii*, agreeing as well with Günther's description as they do with each other, and there seems to be little room for doubt that our "*Muraena pintita*" is the young of the same species. There is considerable variation in the size and form of the small pale spots.

2. *Leptocephalus* conger* (L.) J. & G.

30930. A small specimen, 6½ inches long, from near Cape San Lucas, does not show any variation from Mediterranean examples of this spe-

* The generic names *Leptocephalus* Gmelin (Syst. Nat. 1, 1150, 1788; based on *Leptocephalus morrissi*, a larval *Conger*) and *Echelus* Rafinesque (Caratteri di Alcuni Nuovi Generi, etc., 1810, 64; *E. macropterus* Raf.) have priority over *Conger* Cuvier. As *Leptocephalus* is the first generic name applied to this group, it should in our opinion be retained, in preference to *Echelus*, notwithstanding its common use for larval forms generally.

cies. No other specimen of this genus has been brought from the Pacific coast of tropical America.

3. *Mugil albula* L.

30932. Four small specimens, each about 5 inches long, from Cape San Lucas.

4. *Mugil brasiliensis* Agassiz.

30933. Three half-grown and numerous young specimens were collected in San José River, near Cape San Lucas.

5. *Agonostoma nasutum* Günther.

30934. Five specimens, the largest about 7 inches long, were collected at San José, where they are known as *trucha*, or trout. These do not differ essentially from the specimens described by Dr. Günther; the maxillary usually extends slightly beyond front of orbit; head $4\frac{1}{4}$ to $4\frac{1}{2}$ in length (to base of caudal); eye $4\frac{1}{3}$ in head; maxillary not longer than interorbital width, contained $2\frac{3}{4}$ to $3\frac{1}{4}$ times in head; a band of pterygoid teeth often but not always developed; dorsal spines very strong, not flexible, the origin of the fin nearer snout than tail; caudal well forked, the middle rays $1\frac{1}{2}$ in outer.

6. *Remora squalipeta* (Dald.) J. & G.

(*Echeneis remora* L.)

30941. A single specimen, 6 inches long, from San José.

7. *Centropomus robalito* Jor. & Gilb.

30940. Two small specimens, $3\frac{1}{2}$ inches long, were obtained at San José.

8. *Gobius banana* Cuv. & Val.

30935. Color light olivaceous, back and sides blotched and shaded with dark brown; a series of irregular roundish blotches along middle of sides; narrow black streaks radiating from eye, two of these running downwards and forwards to mouth, and one backwards to upper preopercular angle, with a similar parallel streak below it; a black streak running across upper margin of opercle, and extending on base of upper pectoral rays; dark markings on back, sometimes forming more or less distinct cross-bars; belly white; ventrals and anal immaculate; other fins all more or less distinctly barred with wavy black lines.

Head $3\frac{3}{5}$ in length; depth $5\frac{2}{3}$. D. VI-11; A. I, 10; scales 61-21.

Body subfusiform, long and low, scarcely or but little compressed. Head long and low, slender, much narrowed anteriorly, its greatest breadth but little more than its greatest depth, and $1\frac{1}{2}$ in its length; cheeks scarcely tumid; snout long, low, $2\frac{2}{3}$ in head, the profile very little curved. Upper jaw very protractile; lips thick; mouth low, narrow, subterminal, very variable in size, the maxillary from $2\frac{1}{6}$ to $2\frac{4}{5}$ in head, sometimes not reaching eye, sometimes to below middle of orbit; lower

jaw included; scaly region of nape, beginning very close behind eye. Teeth in rather narrow bands, those in outer row in both jaws considerably enlarged, rather robust. Eyes very small, placed high, their range mostly vertical; eye 6 to 7 in head, somewhat greater than the narrow, flat, interorbital area. Isthmus moderate, its width $3\frac{1}{3}$ in head; gill-openings extending forwards but very little above opercle.

Head naked; scales on nuchal and antedorsal regions much reduced in size; nuchal patch of scales beginning close behind eyes; scales on body all regularly imbricated, roughly ctenoid, those on caudal peduncle largest.

Dorsal spines low, rather slender, the tips slender and slightly exerted, the longest spine not quite half head; soft dorsal moderate, the longest rays $2\frac{1}{3}$ in head; caudal slightly rounded behind, $1\frac{1}{2}$ in head; ventrals $1\frac{2}{3}$ in head, the basal membrane broad, moderately developed; vent midway between base of caudal and front of eye.

Two large specimens, each about 6 inches long, and five smaller ones were taken in fresh water near San José. Some (probably all) of the large-mouthed specimens are males, the others females.

9. *Gobius sagittula* (Günther) J. & G.

30936. Seven specimens were obtained from San José, the largest 4 inches long. The teeth in the upper jaw are not in a single series, as described by Dr. Günther, but form a narrow band, the outer series being much enlarged and separated from the band by a narrow interspace.

10. *Philypnus lateralis* Gill.

30937. Two specimens, the largest $4\frac{1}{2}$ inches long, collected at San José. This species differs very little from the Atlantic *P. dormitator*, the fins, formulæ, and general proportions being the same. The adult *lateralis* loses the dark bands along sides, but retains the black spot on base of upper pectoral rays; the depth of adult *lateralis* ($4\frac{1}{3}$ in length) is much greater than in *dormitator*, and the scales on cheeks and top of head are larger.

11. *Dormitator maculatus* (Bloch) J. & G.

30939. Very numerous specimens of this species, the largest 7 inches long, were procured at San José.

12. *Culius æquidens* Jor. & Gilb.

30943. Two specimens, one an adult $1\frac{1}{2}$ feet long, were taken in fresh water near San José. The adult has the mouth larger (maxillary reaching well beyond orbit) and eye smaller (contained nearly four times in interorbital space) than in the type specimens of this species.

13. *Aphoristia atricauda* Jord. & Gilb.

30942. A single small specimen, $1\frac{1}{2}$ inches long, has numerous small

roundish light spots on the colored side, and the black of the tail ocellated with white.

14. *Tetrodon testudineus* L.

(*Tetrodon annularis* Jenyns; *Tetrodon heraldi* Gthr.)

30944. A single small specimen.

UNITED STATES NATIONAL MUSEUM, June 28, 1882.

LIST OF FISHES COLLECTED AT PANAMA, BY REV. MR. ROWELL,
NOW PRESERVED IN THE UNITED STATES NATIONAL MUSEUM.

By DAVID S. JORDAN and CHARLES H. GILBERT.

At some time about the year 1860, a collection of fishes was sent from Panama to the Smithsonian Institution, by Rev. Mr. Rowell. The following is an enumeration of the specimens belonging to this collection, now preserved in the United States National Museum:

1. *Ælurichthys pinnimaculatus* Steind.
31004. One specimen, 20 inches long.
2. *Arius elatturus* Jor. & Gilb.
30995. One specimen.
3. *Arius insculptus* J. & G.
30977. Two specimens, in fair condition.
4. *Hemirhamphus poeyi* Günther.
31019. One specimen, answering well to Günther's description of this species, which has not been hitherto noticed on the Pacific coast of Central America.
5. *Muraena pinta* J. & G.
7328. One specimen.
6. *Rhypticus nigripinnis* Gill.
(*Rhypticus nigripinnis* Gill, Proc. Ac. Nat. Sci. Phila. 1861, 53.)
3700. The original type of the species, 3½ inches long, in bad condition, evidently identical with the adult specimen later described as *Promicropterus decoratus*, and with the young example called *Rhypticus maculatus*.
7. *Centropomus armatus* Gill.
One specimen, 7 inches long.
8. *Pomadasys branicki* (Steind.) J. & G.
7499. One specimen, 3 inches long.
9. *Diabasis flaviguttatus* (Gill.) J. & G.
31005. Two specimens, 8½ inches in length.
10. *Apogon dovii* Günther.
6268. Two specimens, in bad condition.