

Distance from tip of snout to origin of dorsal fin  $3\frac{1}{2}$  to 4 in the length of the fish. Occipital process narrowed posteriorly, with straight or concave lateral edges. Maxillary barbel extending beyond the origin of anal fin; vomerine patches of teeth separate, much smaller than the palatine patches, with which they are subcontinuous; 4 gill-rakers and a few rudiments on the lower part of the anterior arch. Dorsal 17; filamentous ray extending to the adipose fin. Anal 30–35; longest ray less than  $\frac{1}{2}$  the length of base of the fin. Pectoral spine  $\frac{3}{4}$  the length of head. Silvery, back bluish.

*Hab.* Atlantic Coast of South America; West Indies.

Here described from three specimens, the largest 350 mm. in total length.

## 2. GALEICHTHYS, Cuv. & Val., 1840.

*Galeichthys* and *Arius* (part.), Cuv. & Val. Hist. Nat. Poiss. xv. pp. 28 & 52 (1840); Günth. Cat. Fish. v. pp. 138 & 174 (1864).

*Sciædichthys* (Bleek.), *Selenaspis* (Bleek.), *Netuma* (Bleek.), and *Galeichthys*, Jord. & Everm. Bull. U.S. Nat. Mus. xlvii. 1900, pp. 2757, 2760, 2764, & 2770.

Body elongate. Mouth terminal or subterminal; jaws with villiform teeth in bands; villiform teeth on the palate; nostrils close together, the posterior with a flap; a pair of maxillary and two pairs of mental barbels. Parieto-occipital produced into a process which extends to the basal shield of the dorsal spine. Dorsal fin with a strong spine and 7 branched rays; adipose fin short or of moderate length; anal of moderate length; ventral fins 6-rayed; caudal deeply forked.

A large number of species from the coasts of tropical and sub-tropical countries, most of them entering rivers freely.

### *Synopsis of the Mexican and Central-American Species.*

I. Teeth present on vomer, palatines, and pterygoids, sometimes in separate patches, but in the adult usually forming a continuous band, the large subtriangular palato-ptyergoid patches connected anteriorly by a transverse vomerine strip.

A. A transverse membranous fold on the snout, connecting the posterior nostrils; dorsal shield large, saddle-shaped . . . . . 1. *dovii*.

B. No membranous fold connecting the posterior nostrils.

1. Dorsal shield subpentagonal, large, its length in the middle line  $\frac{1}{6}$  or  $\frac{1}{7}$  of the distance from snout to origin of dorsal fin . . . . . 2. *troscheli*.

2. Dorsal shield subcrescentic, considerably smaller than in *G. troscheli*.

a. Fontanel produced posteriorly into a feeble groove which does not extend to the parieto-occipital; adipose fin a little longer than the dorsal fin.

Width of mouth  $\frac{1}{2}$  the width of head . . . . . 3. *planiceps*.

Width of mouth  $\frac{2}{3}$  the width of head . . . . . 4. *kessleri*.

b. Fontanel produced posteriorly into a well-developed groove which extends to the parieto-occipital; adipose fin shorter than the dorsal fin . . . . . 5. *platypogon*.

II. Teeth present on palatines and usually on the vomer, but not on the pterygoids, the vomerine patches separate or subcontinuous, and continuous or subcontinuous with or separate from the palatine patches, which may be rounded, oval, club-shaped, or oblong.

A. Fontanel not produced backwards into a groove; occipital process not longer than broad; inner edge of pectoral spine moderately or strongly serrated; anal of 16 to 20 rays.