

Hoplostethus mediterraneum.

- Hoplostethus mediterraneus*, Cuv. et Val., iv. p. 469, pl. xcvi., *bis*.
 " " Guichen, Explor. Algér. poiss., p. 42.
 " " Günth., Fish., vol. i. p. 9; Ann and Mag. Nat. Hist., 1878, vol. i. p. 485.
 " " Jordan and Gilbert, Synopsis, p. 458.
 " " Steindachner, Denkschr. d. k. Akad. d. Wiss. Wien, 1883, xlvii. p. 218, tab. i.
Trachichthys pretiosus, Lowe, Proc. Zool. Soc. Lond., 1839, p. 77; Fish. Madeira, p. 55, pl. ix.
Hoplostethus japonicus, Hilgendorf, Sitzungsber. d. Gesellsch. naturf. Freunde, Berlin, 1879, p. 78.

D. $\frac{6}{13}$. A. $\frac{3}{9}$. V. $\frac{1}{6}$. L. lat. 28-29. Vert. $\frac{11}{5}$.

Specimens of this species have been discovered at distant intervals of time at considerable depth (the precise depth is not known) in the western parts of the Mediterranean, off Madeira, and recently also in the Sea of Japan. Dr. Hilgendorf was of opinion that he could specifically distinguish Japanese specimens by a somewhat larger number of abdominal scutes. This would have been a character insignificant enough, even if the Japanese specimens had not sometimes the same number of scutes as the Mediterranean. A more important difference seems to be the structure of the scales, which I find in Japanese specimens, on the whole, less strongly ctenoid than in Madeiran. But even in this respect there is no constancy in specimens from either of the two localities.

A specimen 3 inches long has lately been dredged by the U.S. Fish Commission, off Chesapeake Bay.

Trachichthys, Shaw.

Body compressed, more or less deep, covered with small ctenoid and generally rough scales, which are rather irregularly arranged. Abdomen protected by dermal scutes, which form a serrated edge. Head very large, the superficial bones being deeply sculptured to receive wide muciferous cavities which are covered by thin skin only. Mouth very wide, oblique; villiform teeth in the jaws and on the vomer and palatine bones. Eight branchiostegals; gill-openings very wide, gill-laminæ very short. Suprascapular and angle of the præoperculum armed with a spine each. One dorsal fin, the anterior rays of which are spinous; ventrals with six soft rays; pectoral symmetrical; caudal deeply forked.

Lowe is right in stating that *Hoplostethus* is scarcely entitled to generic rank, the whole difference between it and *Trachichthys* being the absence or presence of vomerine teeth. The structure of the bones of the head, the development of large muciferous cavities, the large eye, the more or less intense black colour of the pharyngeal and branchial cavities, and finally the mode of occurrence, clearly indicate that the species of