

Synopsis of the Mexican and Central-American Species.

I. Middle of eye above the level of the angle of the mouth; 9 to 12 gill-rakers on the lower part of the anterior arch.

A. Anal fin of 19 to 24 rays.

1. Occipital process not much broader than long.

a. Teeth on the palate in two rather small, well-separated patches.

Diameter of eye 6 in the length of head (in specimens of 180 to 200 mm.); maxillary barbel extending to basal part of pectoral; dorsal spine $\frac{3}{5}$ the length of head; pectoral spine $\frac{3}{5}$ the length of head, its inner edge very strongly serrated

1. *melanopus*.

Diameter of eye 4 to 5 in the length of head (in specimens of about 180 to 220 mm.); maxillary barbel extending about to base of pectoral; dorsal spine $\frac{3}{4}$ to $\frac{7}{8}$ the length of head; pectoral spine $\frac{2}{3}$ the length of head

2. *liopus*.

b. Teeth on the palate in two rather large narrowly separated patches; diameter of eye 6 to $7\frac{1}{2}$ in the length of head (in specimens of 196 to 260 mm.); maxillary barbel extending to basal part or middle of pectoral; dorsal and pectoral spines $\frac{2}{3}$ to $\frac{3}{4}$ the length of head, the latter with the inner edge moderately serrated

3. *fuertii*.

2. Occipital process much broader than long

4. *evermanni*.

B. Anal fin of 27 rays

5. *multiradiatus*.

II. Middle of eye about on a level with the angle of the mouth; 30 gill-rakers on the lower part of the anterior arch; anal fin of 22 or 23 rays

6. *hypophthalmus*.

1. *Arius melanopus*. (Tab. XVIII. fig. 1 and Tab. XIX. fig. 7.)

Arius melanopus, Günth. Cat. Fish. v. p. 172 (1864)¹.

Tachysurus melanopus, Jord. & Everm. Bull. U.S. Nat. Mus. xlvii. 1900, p. 2784².

Galeichthys aqua-dulce, Meek, Publ. Columbian Mus., Zool. v. 1904, p. 9, t. 4³.

Depth of body 5 to $5\frac{1}{2}$ in the length, length of head $3\frac{3}{4}$ to $4\frac{1}{3}$. Breadth of head $1\frac{1}{3}$ in its length, diameter of

on, viz., a single nasal opening on each side and a rayed adipose dorsal. Cuvier and Valenciennes (xv. p. 163, 1840) placed Lacépède's fish in the genus *Pimelodus* and made the following remarks:—"M. de Lacépède a cru devoir faire un genre à part de ce poisson, à cause de quelques traits que l'on voit sur l'adipeuse, et qu'il a regardés, dit-il, comme des rayons; . . . il le nomme *tachisure* à cause de l'agilité de sa queue, longue et déliée, et comme on peut en juger par la copie, assez mauvaise d'ailleurs, qu'il donne de sa figure chinoise, les proportions de cette partie ne diffèrent pas beaucoup de ce qu'elle est dans les espèces du groupe actuel. Il nous paraît donc que le genre *Tachisure* ne peut être conservé."

I have thought it necessary to give in detail the reasons why I use *Arius* instead of *Tachysurus*, as the latter is now generally used by American ichthyologists, although I am at a loss to imagine how they have determined that a fish known only from a Chinese painting had granular or obtusely conical teeth on the palate.