

Synopsis of the Cichlid Genera represented in Mexico and Central America.

I. Anal fin with 3 spines.

No lobe on the anterior branchial arch 1. ACARA.

A compressed lobe on the upper part of the anterior branchial arch . . . 2. GEOPHAGUS.

II. Anal fin with more than 3 spines.

Teeth all conical or cylindrical; mouth small or moderate, moderately protractile, the præmaxillary spines (ascending processes) shorter than the head 3. CICHLOSOMA.

Teeth all conical or cylindrical; mouth large, very protractile, the præmaxillary spines as long as the head 4. PETENIA.

Several series of small conical teeth and an outer series of larger teeth, all or most of which are compressed, incisor-like 5. HERICHTHYS.

Teeth all compressed, entire, with pointed or rounded apices 6. PARANEETROPLUS.

Teeth all compressed, entire, with truncate apices 7. NEETROPLUS.

Teeth all compressed, mostly tricuspid, only the median ones of the outer series being entire, with truncate apices 8. HEROTILAPIA.

1. ACARA, Heck., 1840.

Acara, Regan, Ann. Mag. Nat. Hist. (7) xv. 1905, p. 330.

This, the most generalized genus of American Cichlidæ, is very closely allied to the African *Paratilapia*, which it resembles not only in external features, but also in the anatomy. The only difference between them is that the maxillary is completely hidden by the præorbital in *Acara*, whilst it is more or less exposed distally in *Paratilapia*. Of the nineteen species of *Acara*, only one is found as far north as the Isthmus of Panama.

1. *Acara cœruleopunctata*, Kner & Steind., 1863.*Acara cœruleopunctata*, Regan, Ann. Mag. Nat. Hist. (7) xv. 1905, p. 336.

D. XIV-XV 10-11. A. III 8-9. Sc. 26-28 $\frac{3}{8-9}$. Præoperculum scaleless; dorsal and anal fins scaleless; depth of body 2 to $2\frac{1}{3}$ in the length; 6 gill-rakers on the lower part of anterior arch; dorsal spines increasing in length to the last, which is nearly $\frac{1}{2}$ the length of head.

Hab. PANAMA, Rio Chagres.—N.W. ECUADOR.

2. GEOPHAGUS, Heck., 1840.

Geophagus, Regan, Ann. Mag. Nat. Hist. (7) xvii. 1906, p. 50.

Closely allied to *Acara*, differing only in the structure of the anterior branchial arch. Of the twelve species eleven are South American.

1. *Geophagus crassilabris*, Steind., 1877.*Geophagus crassilabris*, Regan, Ann. Mag. Nat. Hist. (7) xvii. 1906, p. 58.

D. XVI 10-11. A. III 7-8. Sc. 30-31 $\frac{4\frac{1}{2}}{9-11}$. 14 or 15 gill-rakers on the lower part of anterior arch; pectoral $\frac{2}{3}$ - $\frac{3}{4}$ the length of head, not extending to above the anal.

Hab. PANAMA.