

Abdomen shining, the base of the petiole black ; the apex of the pygidium is depressed, smooth, and shining, its sides keeled.

In Bingham's arrangement (Faun. Br. Ind., Hym. i. p. 107) this species would form a new section of A. "Wings yellow, apex infusate." c. Head, thorax, and abdomen ferruginous, the head covered with a bright golden pile.

[To be continued.]

XI.—*Diagnoses of new Cichlid Fishes discovered by Mr. J. E. S. Moore in Lake Nyassa.* By G. A. BOULENGER, F.R.S.

Paratilapia nototænia.

D. XVII 10. A. III 9. Sq. $36 \frac{3}{12}$. Lat. l. $23/9$.

Five series of teeth in both jaws, outer largest. Depth of body $2\frac{2}{3}$ times in total length, length of head 3. Snout with convex upper profile, a little longer than the eye, the diameter of which is 4 times in length of head ; maxillary extending to below anterior border of eye ; 3 series of large scales on the cheek ; 11 gill-rakers on lower part of anterior arch. Dorsal spines increasing in length to the last, which measures a little more than $\frac{1}{3}$ length of head. Third anal spine $\frac{1}{3}$ length of head. Caudal slightly emarginate. Caudal peduncle $1\frac{1}{2}$ as long as deep. Scales with finely denticulated border. Brown above, white beneath ; a blackish band along each side of the back, above the lateral line ; dorsal fin with a regular series of round brown spots between every two rays ; ventrals and anal blackish.

Total length 230 millim.

A single badly preserved specimen.

CYRTOCARA, gen. nov.

Allied to *Paratilapia*, but membrane between the dorsal and anal spines with rectilinear edge, not forming lappets, and four spines in the anal fin. Jaws with broad bands of conical slightly curved teeth, the outer enlarged and pointing outwards.

Whether or not the hump on the forehead, from which the generic name is derived, is a sexual character, as in some South-American Cichlidæ, is at present uncertain.

*Cyrtocara Moorii.*D. XVI 11. A. IV 8. Sq. $37 \frac{3}{11}$. L. lat. 25/16.

Depth of body $2\frac{1}{2}$ times in total length, length of head $3\frac{1}{2}$. Forehead with a strong dermal gibbosity; snout short, its profile descending very steeply; diameter of eye $3\frac{1}{2}$ times in length of head; maxillary extending to below anterior border of eye; lower jaw projecting; four series of scales on the cheek; 10 gill-rakers on lower part of anterior arch. Dorsal spines rather feeble, increasing in length to the last, which measures $\frac{1}{2}$ length of head; longest dorsal rays as long as head. Pectoral a little longer than head. Ventral as long as head. Caudal densely scaled, deeply notched. Scales with very indistinctly denticulate border. Brown above, whitish beneath; fins darker.

Total length 185 millim.

A single specimen.

*Petrochromis Nyassæ.*D. XIX 8. A. III 7. Sq. $35 \frac{4-5}{17}$. L. lat. 23/14.

Depth of body $2\frac{1}{2}$ times in total length, length of head 3. Diameter of eye 4 times in length of head; mouth extending to between nostril and eye; teeth extremely numerous, forming very broad bands in both jaws; 4 series of scales on the cheek; 13 gill-rakers on lower part of anterior arch. Dorsal spines equal from the seventh, nearly half as long as head. Pectoral a little longer than head, nearly reaching origin of anal; ventral much produced, extending beyond origin of anal. Caudal slightly emarginate. Uniform olive-brown; a blackish opercular spot; dorsal and anal fins edged with blackish.

Total length 185 millim.

A single specimen.

Closely allied to *P. polyodon*, Blgr., from Lake Tanganyika, but one spine more in the dorsal, pectoral and ventral more elongate, and scales more numerous in a vertical series.

HEMITILAPIA, gen. nov.

Like *Tilapia*, Smith, but jaws with moderately broad bands of slender club-shaped movable teeth, with slightly incurved crowns, those of the outer series larger, with the crown obliquely truncate and pointing forwards.

Hemitilapia oxyrhynchus.

D. XVI 10-11. A. III 9. Sq. 36 $\frac{3-4}{11}$. Lat. l. 22/15.

Depth of body $2\frac{1}{2}$ times in total length, length of head 3. Snout pointed, with concave profile, $1\frac{1}{2}$ to twice as long as the eye, the diameter of which is 4 to nearly 5 times in length of head; maxillary extending to between nostril and eye; 4 series of scales on the cheek; 12 gill-rakers on lower part of anterior arch. Last dorsal spine longest, $\frac{2}{5}$ length of head; longest dorsal rays nearly as long as head. Scales with very finely denticulate border.

Total length 180 millim.

Two specimens, in poor condition.

BIBLIOGRAPHICAL NOTICES.

Palæontologia Indica. Series XVI. Vol. I. Part 3. *Fauna of the Upper Cretaceous (Maëstrichtian) Beds of the Mari Hills.* By FRITZ NOETLING, Ph.D., Palæontologist, Geol. Surv. India. Folio. 79 pages; plates i.-xxiii. Calcutta: Geol. Survey Office. London: Kegan Paul & Co. 1897.

It is believed that this account of the species here described and figured has a special interest in throwing some light on the geographical distribution of the Upper Cretaceous fauna. The fossils of this formation collected in Baluchistán (77 in number) afford 66 determinable species, of which 42 are new, and 24 are identified with forms previously described. Of these last, there are seven which hitherto are only known to occur in Indian or Central-Asian beds, viz. :—

1. *Cardita Beaumonti*, *d'Arch. & Haime* (Sind); var. *baluchistanensis*, *Noetl.*
2. *Cardita subcomplanata*, *d'Arch. & Haime.* Sind.
3. *Radiolites subdilata*, *Muschketoff.* In strata of Senonian age in Turkestan.
4. *Corbula harpa*, *d'Arch. & Haime.* Sind.
5. *Ovula expansa*, *d'Arch. & Haime.* Sind.
6. *Volutilithes latisepta*, *Stoliczka.* In the Ariyahir strata of Southern India.
7. *Nautilus subfleuriausianus*, *d'Arch. & Haime.* Sind.

There remain, therefore, 17 species, or 26 per cent. of the total number, which the Baluchistán Upper Cretaceous Beds have in common with the Cretaceous Beds of Europe; and it is these we have chiefly to consider in looking for information as to the age and correlation of the *Hemipneustes* beds (as they may be conveniently



Boulenger, George Albert. 1902. "Diagnoses of new cichlid fishes discovered by Mr. J. E. S. Moore in Lake Nyassa." *The Annals and magazine of natural history; zoology, botany, and geology* 10, 69–71.

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