

3. On some Fishes from the Kilima-njaro district.
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(Plate VIII.)

The fishes of the systems of the great African rivers flowing north-, west-, or eastwards are sufficiently well known to allow us to make a safe inference as to the forms which inhabit the fresh waters of the centre of the continent. Although many new species or even new genera may be discovered, it can hardly be expected that they will add a new distinct feature to what we already know of the general character of the freshwater fauna of Tropical Africa.

The difficulties of preserving fishes and of transporting them to the coast will long continue to be serious obstacles to our detailed acquaintance with Central-African fishes; and therefore it is all the more the duty of the naturalist at home to pay due attention to the specimens, however few in number, which the traveller has been able to get through the perils of a long and tedious overland journey.

From the fresh waters of Kilima-njaro Dr. G. A. Fischer, who was sent by the Geographical Society of Hamburg into the Masai-country, was the first to bring some fishes to Europe. They were described by Dr. J. G. Fischer in the 'Jahrbuch der Hamburger wissenschaftlichen Anstalten,' vol. i. 1884, p. 27, *et seqq.* Dr. Fischer seems to have obtained them from the waters flowing westwards from the western slope of the mountain-range, whilst the two British travellers mentioned below have collected on the southern and south-eastern rivers. This may account, at least partly, for the differentiation of the species obtained by those travellers.

Dr. Fischer's specimens belonged to four species, viz., *Chromis mossambicus*, Gthr. (closely allied to the common and widely spread *Chromis niloticus*), a species of *Clarias* which Dr. J. G. Fischer considers to be the *Clarias mossambicus* of Peters, and two new species of Barbels, *Barbus pagenstecheri* and *Barbus neumayeri*.

To these four species I can now add four others.

1. The fish first to be described here was discovered by Mr. Henry C. V. Hunter, F.Z.S., in Lake Chala, the Crater Lake of Kilima-njaro. Mr. Hunter writes that no other fish was found by him in the lake, and that the fish does not exist in any of the other fresh waters round the mountain.

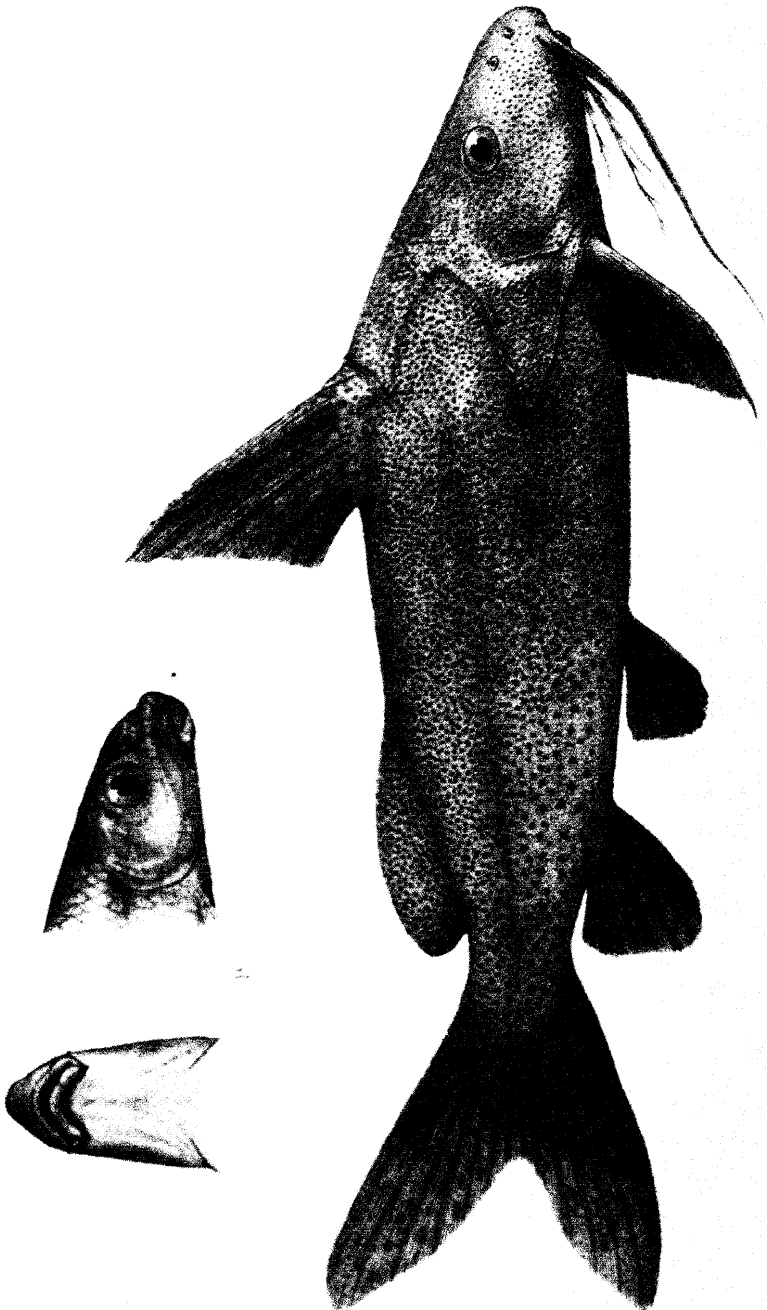
The specimen is a dried skin, $11\frac{1}{2}$ inches long, and in a good state of preservation: it belongs to a form closely allied to *Chromis* and *Hemichromis*, but readily distinguishable from both those genera by the presence of four anal spines. This new genus may be called *Oreochromis*, and the species *Oreochromis hunteri*.

OREOCHROMIS HUNTERI, sp. nov.

B. 5. D. $\frac{17}{17}$. A. $\frac{4}{15}$. P. 15. L. lat. 35. L. transv. 5/15.

The height of the body is nearly equal to the length of the head,

PLATE I.



Mintern Bros. imp.

A. SYNODONTIS PUNCTULATUS. B. TYLOGNATHUS MONTANUS.

B. Mintern del et lith.

and one third of the total length, without caudal. Snout much longer than the eye, the præorbital being longer than, and as high as, the orbit. The teeth in the upper jaw form a broad villiform band, those of the outer series being a little stronger than the others. These stronger teeth, which are thirty-eight in number on each side, have the crown slightly compressed, some showing a distinct notch and being brown at the tip. Interorbital space twice as broad as the orbit, convex. Scales on the cheek rather small, in three series; scales cycloid, of moderate size; the lateral line is interrupted below the end of the spinous dorsal.

Dorsal spines gradually increasing in length; the sixth ray is the longest, reaching backwards to the root of the caudal; pectoral and ventral fins long, extending to, or nearly to, the anal.

Coloration uniform dusky, but some of the scales on the back seem to have had a reddish-brown spot at the base.

2. The other species were obtained by F. J. Jackson, Esq., F.Z.S., in the river Ruva, in the Arusha country.

SYNODONTIS PUNCTULATUS, sp. nov. (Plate VIII. fig. A.)

D. 17. A. 11. P. 1/8. V. 8.

Allied to *Syndontis serratus* and *Syndontis guttatus*.

The gill-opening extends downwards to before the root of the pectoral fin. Mandibular teeth shorter than the eye, about 24 in number, no villiform teeth behind them. Maxillary barbels a little longer than the head, not fringed; mandibular barbels provided with filaments, the outer ones shorter than the head. The length of the head (from the snout to the gill-opening) is one fourth of the total length (without caudal). Nuchal carapace not much arched, longer than broad; its posterior processes do not extend behind the dorsal spine. Dorsal and pectoral spines subequal in length, and somewhat shorter than the head; both these spines are slightly serrated in front. Humeral process twice as long as high, pointed behind. The distance between the dorsal and adipose fins is more than the length of the former, but shorter than the head. Head, body, and adipose fin covered with very numerous and very small brown dots. The dots become somewhat larger above the anal fin, on the free portion of the tail, and on the caudal fin, but none exceed the pupil in size.

Two specimens, of which the larger measures 8 inches.

TYLOGNATHUS MONTANUS, sp. nov. (Plate VIII. fig. B.)

D. 12. A. 8. L. lat. 37. L. transv. 5/6.

Snout very obtuse, rounded, with small tubercles, and with fleshy continuous lips, covering an inner, sharp, horny, labial edge on the upper as well as lower jaw. The mouth is crescent-shaped and at the lower side of the snout. A slender barbel is hidden in a deep recess at the corner of the mouth, and the upper lip is overhung by

a broad fold pendent from the end of the snout. Eye of moderate size, somewhat behind the middle of the length of the head, two ninths of the length of the head, and nearly one half of the broad and flat interorbital space. There are three longitudinal series of scales between the lateral line and the root of the ventral fin. Body rather elongate, its depth being equal to the length of the head and two ninths of the total length, without caudal. The origin of the dorsal fin is considerably in advance of that of the ventral; in fact, the fin occupies the middle of the distance between the end of the snout and the root of the caudal. Pectorals inserted at the lower side of the body, horizontal, but not reaching the ventral; ventrals long, broad, nine-rayed, extending beyond the vent; caudal fin deeply forked. Coloration uniform; a small black spot on the shoulders behind the upper end of the gill-opening.

One specimen, 5 inches long.

Unless one or the other of the Abyssinian fishes described by Rüppell as *Barbus* belongs to *Tylognathus*, this would seem to be the first African species of this genus which hitherto has been known to be represented in India and Syria. However, it should be remembered that the separation of this genus from *Labeo* is artificial, and maintained for other reasons (see Catal. Fish. vii. p. 62). *Labeo* is well known to be a type common to both the African and Indian regions.

BARBUS JACKSONI, sp. nov.

D. 10. A. 8. L. lat. 37. L. transv. 6/5.

Two pairs of barbels, the posterior rather longer than the anterior and about as long as the eye. Eye large, longer than the snout and two sevenths of the length of the head. Interorbital space convex, much wider than the orbit. The osseous dorsal ray is very strong and smooth, longer than the head. There are three and a half series of scales between the lateral line and the root of the ventral fin. Body compressed, its height being two sevenths of the total length, without caudal; head small, two ninths of the same length. The small mouth is anterior, the upper jaw but slightly overlapping the lower, lips not thickened. The origin of the dorsal fin is opposite to the root of the ventral, and but little nearer to the end of the snout than to the root of the caudal; caudal fin forked. Three round black spots on the side of the body; the two anterior above, and the third on, the lateral line; the first opposite to the seventh, and the second opposite to the sixteenth scale of the lateral line.

One specimen, $3\frac{3}{4}$ inches long.