THE ANNALS

AND

MAGAZINE OF NATURAL HISTORY,

INCLUDING

ZOOLOGY, BOTANY, AND GEOLOGY.

(BEING A CONTINUATION OF THE 'ANNALS' COMBINED WITH LOUDON AND CHARLESWORTH'S 'MAGAZINE OF NATURAL HISTORY.')

CONDUCTED BY

WILLIAM CARRUTHERS, Ph.D., F.R.S., F.L.S., F.G.S., ARTHUR E. SHIPLEY, M.A., Sc.D., F.R.S., F.Z.S.,

WILLIAM FRANCIS, F.L.S.

VOL. XX.—EIGHTH SERIES.

LONDON:

PRINTED AND PUBLISHED BY TAYLOR AND FRANCIS.

SOLD BY SIMPKIN, MARSHALL, HAMILTON, KENT, AND CO., LD.; BAILLIÈRE, PARIS: AND HODGES, FIGGIS, AND CO., DUBLIN.

1917.

Skull: greatest length 33.5; condylo-incisive length 31.6; zygomatic breadth 164; nasals 132; interorbital breadth 4.5; palatal foramina 7.1×2.1; upper molar series 7.3; breadth of m^1 2.5.

Hab. Mt. Baginzi, Bahr-el-Ghazal. Alt. 3500'.

Type. Adult female. B.M. no. 17.10.4.17. Original number 29. Collected March 1916, and presented by Major

Cuthbert Christy, R.A.M.C. Two specimens.

Mylomys cuninghamei of British East Africa and M. lutescens of Uganda have the belly hairs broadly plumbeous basally. M. alberti of the Upper Welle is conspicuously larger than M. christyi, the skull 38.5 mm. in length. " Pelomys" roosevelti, Heller, which is clearly a Mylomys, I do not know, but its molars are said to be 85 mm. in length.

XLV .- Descriptions of new Fishes from Lake Tanganyika forming Part of the Collection made by the late Dr. L. Stappers for the Belgian Government. By G. A. Boulenger, F.R.S.

(Published by permission of the Trustees of the British Museum.)

A REPORT on the large collection of Fishes made by Dr. L. Stappers * in Lake Tanganyika and other parts of the Belgian Congo was in preparation when the war broke out, and only the greater part of the diagnoses of the new species have so far been published in Brussels †. I now propose, after this long delay, to give short descriptions of the remainder, so as to render the whole series available for reference.

Alestes vittatus.

Depth of body $3\frac{1}{2}$ to $3\frac{2}{3}$ times in total length, length of head 4 to $4\frac{1}{4}$ times. Head twice as long as broad, a little longer than deep; snout as long as eye, which is 3 times in

• On his return to Europe, hastened by the outbreak of the war, Dr. Stappers joined the Medical Service of the Belgian Army; he died in hospital at Calais on Dec. 30, 1916. The death of this promising young zoologist is a great loss to Science.

+ Rev. Zool. Afr. iii. 1914, pp. 442-447, and iv. 1915, pp. 162-170.

The Acanthopterygii and Opisthomi are included in the British Museum

Catalogue of African Fishes.

length of head; adipose eyelid feebly developed; interorbital width $2\frac{1}{2}$ to $2\frac{2}{3}$ times in length of head. Gill-rakers thin and rather short, 12 or 13 on lower part of anterior arch. Dorsal II 8, originating above inner ray of ventral, at equal distance from end of snout and from caudal; longest ray nearly as long as head. Anal III 15–16. Pectoral not reaching ventral. Caudal peduncle a little longer than deep. Scales $23-24\frac{4\frac{1}{3}}{3\frac{1}{2}}$, 2 between lateral line and ventral. Silvery; a blackish lateral band, widening from the gill-cover to below the dorsal.

Total length 80 mm. Lufuko River at Pala.

Near A. kingsleyæ, Gthr., but dorsal a little further back, fewer gill-rakers, and lateral band complete.

Varicorhinus stappersii.

Depth of body $3\frac{1}{2}$ to $3\frac{2}{3}$ times in total length, length of head $4\frac{1}{2}$ to 5 times. Snout rounded, broader than long, $\frac{1}{3}$ length of head; eye supero-lateral, 5 times in length of head, 2 to $2\frac{1}{3}$ times in interorbital width; mouth very feebly curved, its width $\frac{1}{2}$ length of head; 2 barbels on each side, anterior as long as eye, posterior $1\frac{1}{2}$ as long. Dorsal III 9, equally distant from centre of eye and from caudal; last simple ray strong, bony, not serrated, its stiff portion measuring a little more than $\frac{1}{2}$, or nearly $\frac{2}{3}$, length of head. Anal II 5. Pectoral not reaching ventral, which is inserted below anterior rays of dorsal. Caudal peduncle $1\frac{2}{3}$ to nearly 2 times as long as deep. Scales $30-31\frac{4\frac{3}{5}}{5\frac{1}{3}}$, $2\frac{1}{2}$ between lateral line and ventral, 12 round caudal peduncle. Brown above, whitish beneath, the demarcation line passing through the middle of the series of scales below the lateral line.

Total length 300 mm. Lufuko River at Nganza. Near V. brucii, Blgr., but mouth wider and barbels longer.

Barbus tæniopleura.

Depth of body $3\frac{1}{2}$ to $3\frac{2}{3}$ times in total length, length of head 4 to $4\frac{1}{2}$ times. Snout rounded, as long as eye, which is $3\frac{1}{3}$ to $3\frac{1}{2}$ times in length of head; interorbital width $2\frac{1}{2}$ times in length of head; mouth small, subinferior; lips feebly developed; 2 barbels on each side, anterior $1\frac{1}{3}$ to $1\frac{2}{3}$ times diameter of eye, posterior $1\frac{1}{2}$ to 2 times. Dorsal III 8, equally distant from centre of eye and from caudal, border very feebly notched, last simple ray flexible, as long

Pectoral as as head. Anal III 5, not reaching caudal. long as head or a little shorter, not reaching ventral, which is inserted below anterior rays of dorsal. Caudal peduncle $1\frac{2}{3}$ to 2 times as long as deep. Scales with numerous radiating striæ, $27-29\frac{41}{4}$, $2\frac{1}{2}$ between lateral line and ventral, 12 round caudal peduncle. Brownish above, yellow beneath; a narrow blackish lateral band from the gill-cover to the root of the caudal; fins whitish.

Total length 80 mm.

Kasarala brook at Gongwe.

Near B. chlorotania, Blgr., but caudal peduncle more clongate.

Barbus urostigma.

Depth of body equal to length of head, $3\frac{1}{3}$ to $3\frac{2}{3}$ times in total length. Snout rounded, as long as eye, which is 31 to 33 times in length of head; interorbital width 21 times in length of head; mouth small, subinferior; lips feebly developed; 2 barbels on each side, anterior as long as eye or a little longer, posterior 11 to 11 times its length (barbels shorter in the young). Dorsal III 7, equally distant from centre or posterior border of eye and from caudal, border straight or slightly convex; last simple ray flexible, as long as head or a little shorter. Anal III 5, not reaching caudal. Pectoral 3 to 4 length of head, not reaching ventral, which is inserted below anterior rays of dorsal. Caudal peduncle $1\frac{1}{2}$ to 2 times as long as deep. Scales with numerous radiating striæ, 25-30 $\frac{41}{43}$, $2\frac{1}{2}-3$ between lateral line and ventral, 12 round caudal pcduncle. Brown above, whitish beneath, the scales on the side often edged with dark brown, or blackish at the base; a round black spot at base of caudal; fins whitish.

Total length 70 mm.

Brooks at Mazonde, Kibudwe, and Gongwe.

Distinguished from the preceding by the shape of the dorsal, with . 7 branched rays instead of 8, and by the absence of the blackish lateral band.

Barbus lufukiensis.

Depth of body equal to length of head, 31/2 to 32/3 times in total length. Snout rounded, as long as eye, which is 3 to $3\frac{1}{3}$ times in length of head; interorbital width $2\frac{1}{2}$ to $2\frac{2}{3}$ times in length of head; mouth small, subinferior; lips feebly developed; 2 barbels on each side, anterior hardly $\frac{1}{2}$ length of eye, posterior $\frac{2}{3}$ (less still in the young). Dorsal III 7, equally distant from eye and from caudal, with concave border; last simple ray flexible, as long as head. Anal II 5, not reaching caudal. Pectoral nearly $\frac{2}{3}$ length of head, not reaching ventral, which is inserted below anterior rays of dorsal. Caudal peduncle $1\frac{1}{2}$ times as long as deep. Scales with few radiating striæ, 24-25 $\frac{34}{23}$, $1\frac{1}{2}$ between lateral line and ventral, 8 round caudal peduncle; the exposed part of the scales of the lateral line nearly 3 times as deep as long. Brownish, the scales on the side edged with dark brown; fins whitish.

Total length 110 mm. Lufuko River at Pala.

Near B. congicus, Blgr., but dorsal with 7 branched rays instead of 8.

Chrysichthys stappersii.

Depth of body 4½ times in total length, length of head $3\frac{1}{3}$ times. Head much flattened, $1\frac{1}{3}$ times as long as broad, rugose above; occipital process in contact with interneural shield; snout broadly rounded, projecting very feebly beyond mouth; eye 61 times in length of head and 21 times in interocular width; width of mouth 12 times in length of head; band of premaxillary teeth curved, 7 times as long as broad; vomero-pterygoid teeth in a long uninterrupted band, very broad on the sides. Nasal barbel nearly as long as eye, maxillary 1\frac{1}{3} times length of head, outer mandibular \frac{2}{3} length of head. Gill-rakers moderately long, 10 on lower part of anterior arch. Dorsal I 6, its distance from caudal 13 times its distance from end of snout; spine striated, a little less than half length of head; second branched ray longest, a little more than half length of head. Adipose dorsal 3 times as long as deep, 13 times as long as rayed dorsal, from which it is separated by a space a little greater than its base. Anal IV 9. Pectoral spine ½ length of head, strongly serrated on inner side. Caudal forked, longest rays 3½ times as long as median. Caudal peduncle nearly twice as long as deep. Brown above, white beneath.

Total length 430 mm.

Kilewa Bay.

Near C. cranchii, Leach, but mandibular barbels longer, adipose fin larger, caudal more deeply notched.

Chrysichthys grandis.

Depth of body 4 to 43 times in total length, length of head 3 to 31 times. Head much flattened, as long as broad, smooth; occipital process in contact with interneural shield; snout broadly rounded, projecting very feebly beyond mouth; eye $8\frac{1}{2}$ to 10 times in length of head and $3\frac{2}{3}$ to 5 times in interocular width; width of mouth 11 times in length of head; band of premaxillary teeth feebly curved, 71 to 8 times as long as broad; vomero-pterygoid teeth in a long and rather broad band narrowly interrupted in the middle. Nasal barbel $1\frac{1}{2}$ to $1\frac{2}{3}$ times diameter of eye, maxillary barbel ½ to 3 length of head, outer mandibular 1. Gill-rakers moderately long, 11 or 12 on lower part of anterior arch. Dorsal I 6, equally distant from end of snout and from caudal; spine small, smooth, about 1 length of head. Adipose dorsal twice as long as deep, as long as or a little shorter than rayed dorsal, from which it is separated by a space 21 to 3 times its length. Anal IV 8. Pectoral spine ¹/₄ to ¹/₃ length of head, feebly serrated on inner side. Caudal notched, with rounded lobes, longest rays about twice as long as median. Caudal peduncle hardly 12 times as long as deep. Dark brown; belly white.

Total length 570 mm.

Kilewa Bay.

Near C. myriodon, Blgr., but head smooth, band of teeth on the palate narrower on the sides, nasal barbel longer, dorsal and pectoral spines shorter.

Synodontis dhonti.

Depth of body equal to length of head, $3\frac{1}{4}$ times in total length. Head $1\frac{1}{4}$ times as long as broad, with strong granular asperities between and behind the eyes; snout obtusely pointed, a little longer than postocular part of head; eye supero-lateral, $9\frac{1}{2}$ times in length of head, $3\frac{1}{2}$ times in interorbital width; lips moderately developed; mandibular teeth $\frac{1}{3}$ diameter of eye, 20 in number, forming a transverse series. Maxillary barbel not margined, nearly $\frac{2}{3}$ length of head; mandibular barbels with few and slender branches. Nuchal shield tectiform and very rugose like the occiput, a little longer than broad, with obtuse posterior processes. Humeral process rugose, granular, not keeled, twice as long as broad, rounded. Dorsal I 7; spine strong, finely striated, serrated behind. Adipose dorsal low, 5 times as long as

deep, nearly twice as long as its distance from rayed dorsal. Anal III 8, rounded. Pectoral spine strong, nearly \(\frac{3}{4}\) length of head, with strong serræ on inner side only. Caudal peduncle as long as deep. Brown above and beneath; caudal yellowish, blackish on the outer rays.

Total length 360 mm.

Kilewa Bay.

Holds an isolated position in the genus, but perhaps nearer to S. granulosus, Blgr., than to any other species.

Named after M. G. Dhont-De Bie, who accompanied Dr. Stappers on his expedition.

XLVI.—A Note on the Coleopterous Genus Euxestus. By GILBERT J. ARROW.

(Published by permission of the Trustees of the British Museum.)

IN a recent paper in this Magazine upon the African representatives of the Erotylidæ (see p. 138 of the present volume) I sank Motschulsky's genus Tritomidea as a synonym of the well-known and almost universally distributed Euxestus. Although unable to decide with any degree of certainty upon the status of the three species from Ceylon and India placed by Motschulsky in Tritomidea, I ventured to express a belief that T. translucida, the only one of the three of which a formal description was given, would prove to be identical with the widespread Euxestus parki, Woll. At the time of writing, I had not examined the abundant series of these insects collected in Ceylon by Mr. George Lewis but, having since discovered these, I have been able to recognize two species which are evidently those called Tritomidea translucida and basalis by Motschulsky, and of these the second, and not the first, proves to be Euxestus parki, while T. translucida is a well-marked species of the same genus previously unknown to me. It is larger and relatively broader than E. parki and can generally be recognized at once by the occurrence of three rather inconstant blood-red patches placed in a triangle upon the elytra—one at the base of each and the third upon the suture.

Motschulsky's third form, Tritomidea oblonga ("from the Indian continent"), is apparently very similar to the African

species I have named Euxestus angustus.