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NEW FISHES FROM THE KASAI DISTRICT OF THE BELGIAN CONGO

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We have recently studied a collection of some twenty-seven species of fishes obtained for The American Museum of Natural History at Luluabourg on the Lulua River, a tributary of the Kasai, by Father R. Callewaert of the St. Joseph Mission, in 1932, and find three or four undescribed forms therein. These comprise a *Labeo*; a small *Barbus* which we take pleasure in naming for the veteran missionary collector; a dwarf catfish probably closely allied to one which has been described in *Eutropius*, but in our opinion of a genus recognizably distinct; and a *Clarias* with confluent vertical fins which, with two or three other such specimens already described, may be an abnormality. We are unable to make up our minds on this point and present a figure of it with a name to use as a handle for students who would investigate the matter further.

Another specimen of interest is a large *Distichodus*, 220 mm. standard length, collected at Luluabourg, August 2, 1932, and identifiable as *Distichodus langi* Nichols and Griscom, with which it has been compared, though not quite typical of that species as described. It has depth, 2.5, and 10 rows of scales between lateral line and ventral. Then there is a fine specimen of *Varicorhinus macrolepidotus* Pellegrin, 245 mm. standard length, with the same data as the above.

Labeo lugubris, new species

Figure 1

SPECIFIC CHARACTERS.—One barbel on each side, hidden under folds at the side of the mouth. Inner surface of lips with transverse plicae. Eyes superolateral. Dorsal falcate, the anterior rays produced in a sharp lobe, with 10 branched rays. Caudal peduncle about as long as deep. Scales, 35 or 36; 12 or 14 around caudal peduncle. Longest ray of dorsal about $1\frac{1}{4}$ times as long as head.

DESCRIPTION OF TYPE.—Number 12334, American Museum of Natural History; a single specimen; from Luluabourg, Kasai; collected by Father R. Callewaert.

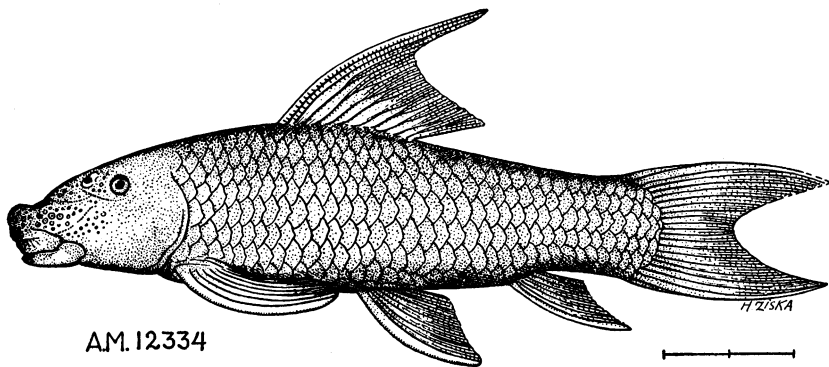
Length to base of caudal, 240 mm.; depth in this length, 3.9; head, 3.6. Eye in head, 9; snout, 1.6; interorbital, 2.1; end of snout to end of maxillary, 2; width of mouth, including lips, 2; greatest width (head and body), 1.4; length of peduncle, 2;

its depth, 1.9; longest dorsal ray, 0.7; anal ray, 1.3; caudal lobe, 1.1; pectorals, 1.1; ventrals, 1.2. Barbel in eye, 1.4.

Dorsal, 12 (10 branched rays); anal, 8; scales, 35 or 36.

Little compressed, the back convex and the lower surfaces flat. Vent halfway between ventral axil and anal origin. Eye small, superolateral, behind middle of head. Interorbital broad and flat. Snout rather pointed, long and prominent, its end somewhat bulgy and marked off by a groove. Numerous small, horny warts on the interorbital and top and sides of snout. Mouth on the under side of head, well behind tip of snout, with extensively developed fleshy lips, the lower with a fringe of papillae in front and broader flutings behind. Lower jaw with a brownish horny edge or rim. Maxillary about to under nostrils. Gill-openings separated below by a distance equal to about $\frac{1}{3}$ the length of the head. Origin of dorsal equidistant from end of snout and anal axil. Pectorals reaching $\frac{1}{2}$ the distance to ventrals, ventrals $\frac{5}{6}$ to anal; anal (which is falcate) to caudal base, when depressed.

Color of preserved specimen, dark purple-gray. Fins slaty. Lower surface of



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Fig. 1. *Labeo lugubris*, type.

paired fins paler proximally. The upper lip is dark and the lower surfaces and the lower lip to the anal origin are pale, yellowish or pinkish.

This form seems closest to *L. chariensis* with a series of which it has been compared. The eye is smaller, snout longer and dorsal lobe less produced. It is a somber-colored fish of very unprepossessing appearance; hence the name *lugubris*.

In the same collection is a specimen 145 mm. long, not distinguishable from *chariensis*, the only significant difference being fewer scales—32 or 33, and an exerted dorsal filament less developed, the fin having much the shape of that of *lugubris*; its longest rays 0.6 in head. It bears strong resemblances to the above larger specimen in appearance, shape of fins and color, suggesting the possibility that *lugubris* is an overgrown individual of the same thing.

Barbus callewaerti, new species

Figure 2

SPECIFIC CHARACTERS.—Scales with more or less wavy and parallel, sub-horizontal striae; dorsal fin with 11 branched, and no spinous, rays; a single pair of minute barbels, less than $\frac{1}{4}$ the diameter of eye. Snout projecting well beyond mouth. Dorsal origin in advance of ventral. Lower lip confined to the corners of the mouth.

DESCRIPTION OF TYPE.—Number 12339, American Museum of Natural History; a single specimen; collected at Luluabourg; by Father R. Callewaert.

Length to base of caudal, 57 mm.; depth in this length, 3.6; head, 3.6. Eye in head, 3.6; snout, 2.7; interorbital, 3.5; maxillary, 3.4; width of body, 2; depth of peduncle, 2.1; its length, 1.8; pectoral, 1.2; ventral, 1.4; longest dorsal ray, 1.2; anal ray, 1.5; caudal lobe, 0.8. Barbel in eye, 4.5.

Dorsal, 13; anal, 7; scales, 25; 12 around peduncle.

Snout projecting well beyond the inferior, curved mouth, with numerous horny warts. Maxillary reaching to under nostril. Dorsal origin equidistant from end of snout and last third of peduncle. Upper margin of dorsal concave and lower fins all

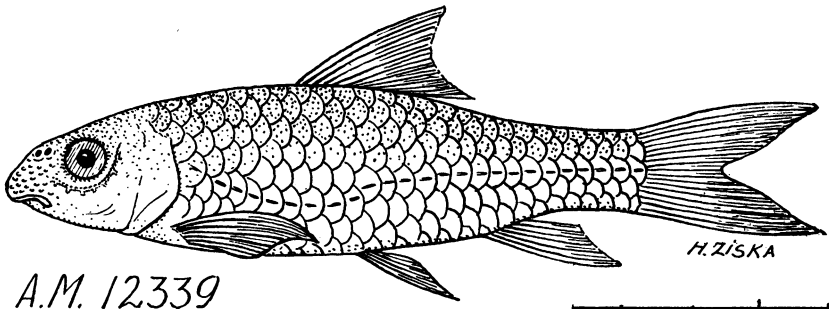


Fig. 2. *Barbus callewaerti*, type.

more or less pointed, falcate; pectoral reaching $\frac{3}{4}$ the distance to ventral, ventral $\frac{4}{5}$ to anal. Caudal well forked, with pointed lobes. Lateral line curving down somewhat over the paired fins and running straight in the center of the peduncle.

Color in preservative, purplish gray, somewhat paler below, without definite markings; the scales on back and sides more or less dark edged.

Clarias confluentus, new species

Figure 3

SPECIFIC CHARACTERS.—Dorsal and anal fins broadly confluent with the caudal. Eye with a free rim. Ventral fins nearer end of snout than root of caudal by about $\frac{1}{4}$ their distance from the former. Nasal barbel about $\frac{1}{2}$ longer than head; maxillary barbel $1\frac{1}{4}$ times length of head. Head moderately granulate above; 1.4 times as long as broad; its length 4.2 in standard length. Distance between occipital process and dorsal, 4.5 in length of head. Vomerine teeth in a crescentic patch. Dorsal rays about 70; anal about 50; 18 gill-rakers on anterior arch.

DESCRIPTION OF TYPE.—Number 12340, American Museum of Natural History; collected at Luluabourg; August 23, 1932; by Father R. Callewaert.

Length to base of caudal, 147 mm.; depth in this length, 5.2; head (to end of occipital process), 4.2. Snout in head, 3.2; interorbital, 2.3; width of head, 1.2; pectoral spine, 2.2; pectoral, 1.9; ventral, 2.6; longest dorsal ray, 2.5; longest anal ray, 3; caudal, 1.9; nasal barbel, 0.8; maxillary barbel, 0.6. Eye in interorbital, 4.

Head moderately granulate above. Two conspicuous fontanels; one backward from between the eyes, and a smaller one on the base of the occipital process, which process is pointed and about as broad as long. Vomerine teeth in a crescentic band about as broad as that on the premaxillary. Gill-rakers on the first arch, 18 or 19. Maxillary barbel reaching about to ventral; nasal barbel to front of dorsal; pectoral spine serrate before and behind; ventrals reaching past front of anal by $\frac{1}{8}$ their length. Dorsal evenly confluent with caudal; anal showing a shallow reentrance in its conjunction with that fin; last dorsal and anal rays both attached to caudal for their full length; caudal rounded.

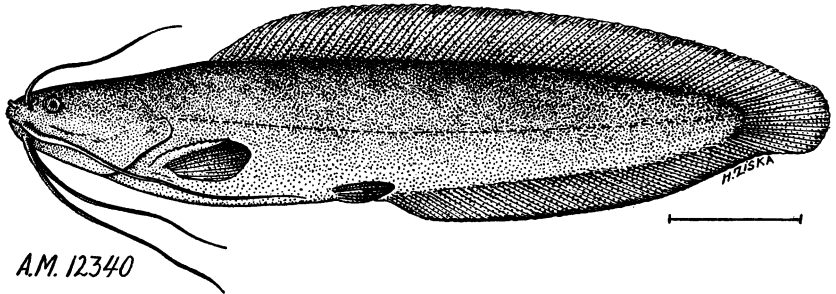


Fig. 3. *Clarias confluentus*, type.

Color dark gray, paler along the ventral surfaces. Paired fins dark and anal dark marginally.

This species is based on a single specimen which differs from other members of the genus we have seen, with the exception of *zygouron* Nichols and Griscom, 1917, in confluence of dorsal and anal with caudal fin. Its resemblance in appearance to specimens of *C. bythipogon* in the collection suggests the possibility of its being an abnormal individual of this or an allied species, though there are other slight technical details which separate it from *bythipogon*. It is unlike *zygouron*, which may equally have been based on an abnormal specimen, but of a different species. J. R. Norman (London) and G. S. Myers (Washington), in lit., are inclined to take the view that such specimens are abnormalities.

EUTROPIELLUS, new genus

Dwarf catfishes, differing from *Eutropius* in smaller size and in that they have but one pair of mandibular barbels (the outer).

Eutropius debauwi Boulenger presumably belongs to this genus, in which case Boulenger's figure is at fault in showing two pair of barbels. In any event, Mr. J. R. Norman has kindly examined for us the paratype of *debauwi* in the British Museum (Natural History) which has only one pair, as have likewise specimens so identified by Nichols and Griscom, 1917, from Avakubi, Niapu and Poko.

TYPE.—*Eutropiellus kasai*, new species.

Eutropiellus kasai, new species

Figure 4

DESCRIPTION OF TYPE.—Number 12338, American Museum of Natural History; collected at Luluabourg, Kasai; August 29, 1932; by Father R. Callewaert.

Length to base of caudal, 80 mm.; depth in this length 3.9; head, 5.6. Eye, in

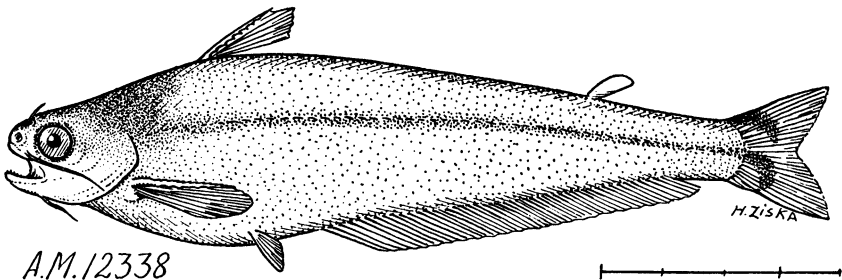


Fig. 4. *Eutropiellus kasai*, type.

head, 3.5; snout, 3; interorbital, 2; nasal barbel, 5; maxillary barbel, 1.4; mandibular, 2.3; greatest width (at back of head), 1.7; depth of peduncle, 2.2; its length, 1.9; pectoral spine, 1.2; ventral fin, 2.5; dorsal spine, 1.6; longest anal ray, 2.1; height of adipose, 3.5; caudal lobe, 1.5; base of dorsal, 6. Head in anal base, 2.6.

Dorsal rays, I, 5; anal, 49.

Snout blunt and rounded; interorbital convex; eyes large and lateral. Lower jaw appreciably included; barbels slender, thread-like. Dorsal origin about equidistant from end of snout and origin of anal; ventral origin behind base of dorsal; pectoral reaching past ventral base; ventral just to anal. Dorsal and pectoral spines slender, appreciably serrate behind; the pectoral weakly serrate in front.

Color in preservative, pale, a dark mark at the shoulder and faint dark band thence to base of caudal. A diffuse dark shade obliquely downward on the base of the upper lobe of the caudal and a diffuse blotch on the base of the lower lobe. These caudal markings are as in *Eutropius debauwi*, but less definite.

A paratype, 56 mm. standard length, has the caudal markings somewhat more definite and 47 anal rays.

This Luluabourg collection comprises 27 species allocated as follows: 1 *Polypterus*, 4 mormyrids, 4 characins, 12 catfishes, 4 carps of which 1 is a *Barbus*, 1 *Mastacembelus*, and 1 *Anabas*. In 1926 the Museum received a collection of 17 species from the same source, comprising 4 mormyrids, 1 characin, 7 catfishes, 2 carps of which 1 was a *Barbus*, 1 *Anabas*, 1 *Lates*, and 1 cichlid. Two of the catfishes occur in both collections, otherwise the species are all different, totalling 42. To get an idea of the faunal balance of the locality we may combine the two collections: 8 mormyrids, 5 characins, 17 catfishes, 2 *Barbus*, 1 cichlid, and 9 otherwise distributed. In percentages this gives 19 mormyrids, 12 characins, 40+ catfishes, 5 *Barbus*, 2+ cichlids, and 21+ otherwise distributed.

Compared with an extensive Congo collection,¹ characins are somewhat lower (perhaps because this is small stream material), 12 versus 18; cichlids lower, 2 versus 9; catfishes higher, 40 versus 27. As is to be expected, the locality is definitely in the Nile-West African faunal area. There is no approach to figures obtained for a small Angolan collection¹ in which catfishes are low, 8% versus 40; *Barbus* and cichlids high, 41% versus 5, and 20% versus 2. The abundance of catfishes and scarcity of cichlids are interesting if they prove to be characteristic of the Kasai district, but they may be due to chance or to local (ecological) conditions.

¹Nichols and Boulton, 1927, Amer. Museum Novitates, No. 264, p. 2.