Institut royal des Sciences naturelles de Belgique

BULLETIN

Tome XXVIII, n° 50.
Bruxelles, septembre 1952.

Koninklijk Belgisch Instituut voor Natuurwetenschappen

MEDEDELINGEN

Deel XXVIII, nr 50.
Brussel, September 1952.

THREE NEW SPECIES AND TWO NEW SUBSPECIES OF THE GENUS LAMPROLOGUS, CICHLID FISHES OF LAKE TANGANYIKA,

by Ethelwynn Trewavas (London) and Max Poll (Tervuren).

In 1950 we found that we had each recognised the three new species now described, one of us from the collections of the Belgian Hydrobiological Mission of 1946-47, the other from the collections made for the British Museum (Natural History) in 1926-27 by the late Dr. Cuthbert Christy. The Belgian collection also provided a sample of a form related to *L. savoryi* Poll (1949) and the British collection a sample of a similar but distinct form. We decided to publish these results jointly in order to base the descriptions on all the material available.

Acknowledgments : We wish to thank Mrs E. A. Duffy for technical assistance with the Christy collection. This collection was not incorporated into the British Museum collections until 1950, and hence the register numbers have that year's date.

Counts and measurements : These are made as described by Trewavas (1946) (1). The frequencies of occurrence of the different combinations of spines and soft rays in the dorsal and anal fins of the sample available are shown by placing each fin-formula above a line and its frequency below. The occurrence of the totals of spines and soft rays is shown similarly.

(1) Proc. Zool. Soc. London, vol. 116, pt. II, pp. 240-246.

Lamprologus savoryi Poll, 1949.

Further samples referable to this species have been discovered in the collections of the Belgian Hydrobiological Mission and in the Christy Collection of the British Museum (Nat. Hist.). Of these, six specimens agree well with the type, but the others form two groups that are regarded as distinct subspecies, although we do not know how far the ecology of the one of them supports this interpretation. *L. s. elongatus* has a less coastal habitat than the typical subspecies.

— Of the three subspecies *L. s. savoryi* and *L. s. elongatus* are much more similar to each other than is either to *L. s. pulcher*. The three agree in the dentition of jaws and pharynx, in the number and size of the scales, and in having a crescentically emarginate caudal fin. The soft dorsal and anal fins and both lobes of the caudal are produced into long filaments, except in a few specimens in which they may be damaged. The ranges of numbers of spinous and soft rays overlap. The main differences are the following :

Colour : *L. s. savoryi* and *L. s. elongatus,* an oblique black bar behind the eye, crossing the preoperculum and extending on to the operculum.

L. s. pulcher, a similar bar, which, instead of extending on to the operculum, curves downwards along the preoperculum.

Other slight differences in the colour patterns may be phases of a common fundamental pattern.

Depth of body : *L. s. elongatus* is more slender than the other subspecies (see descriptions).

Length of head : The head is relatively longer in *L. s. savoryi* (2,5 to 2,8 in the standard length) and *L. s. elongatus* (2,7 to 3) than in *L. s. pulcher* (3 to 3,2). This is chiefly shown in the longer, more acute snout of the two former subspecies and the steeper profile of *L. s. pulcher*.

Width of interorbital region : This is less in *L. s. savoryi* (4,7 to 6,2 in the head) and *L. s. elongatus* (4 to 4,9 in specimens of comparable length) than in *L. s. pulcher* (3,4 to 4), but the difference in proportion is partly accounted for by the shorter head of *L. s. pulcher*.

Depth of preorbital : The different ratios recorded below for this are mainly due to the shorter head, and are not significant when the limitations of accuracy of this measurement are taken into account.

Fin-rays: It is seen that the mode of the total of rays in the dorsal fin is 27 in *L. s. pulcher*, 28 in *L. s. savoryi* and that almost equal numbers of *L. s. elongatus* have 27 and 28. The means in the three subspecies are 26,83, 28 and 27,54 respectively, but the samples are too small for the differences to be accepted as significant. Similarly the mean of the total number of anal rays in *L. s. elongatus* is intermediate between those of the other two subspecies.

Full descriptions follow of the groups of samples on which the subspecies are based.

Sexes: All specimens were sexed by examining the urinogenital papilla, the female having the larger genital opening, and the results were checked by dissecting a few. The specimens of *L. s. savoryi* are unfortunately all males, but both sexes are present in the material of both the other subspecies. No external differences in colour-pattern or in degree of prolongation of the fins, including the pelvics, were observed in the preserved material.

The ovarian eggs in a female *L. s. elongatus* of 36 mm standard length measured about 1,3 mm in longest diameter. They are thus relatively large.

Lamprologus savoryi savoryi Poll.

Depth of body 2,7 to 3 in the standard length, length of head 2,5 to 2,8. Snout 1,1 to 1,5 times as long as diameter of eye, which is 3,5 to 4,7 in the length of head. Interorbital width 4,6 to 6,2 in the length of head, depth of preorbital 7 to 8, length of lower jaw 2,1 to 2,3. No scales on the cheek. No suborbital bones; preorbital covered with opaque skin.

Canine teeth 6 in upper jaw, 4 or 6 in lower. Pharyngeal teeth all pointed, the posterior slightly stouter.

Gill-rakers 8 to 10 on lower part of anterior arch.

33 to 35 scales in a longitudinal series, 9 to 11 between origin of dorsal and lateral line, 7 to 9 between bases of pectoral and pelvic fins. Series of small scales between the soft rays of D and A and to a less degree between the spines.

D. $\frac{\text{XVIII } 9}{1}, \frac{\text{XIX } 9}{5}, \frac{\text{XIX } 10}{1}$. A. $\frac{\text{VI } 6}{1}, \frac{\text{VI } 7}{3}, \frac{\text{VII } 6}{1}, \frac{\text{VI } 8}{2}$ (2).

Pectoral about 3/4 as long as head.

(2) The lower number gives the frequency of each formula.

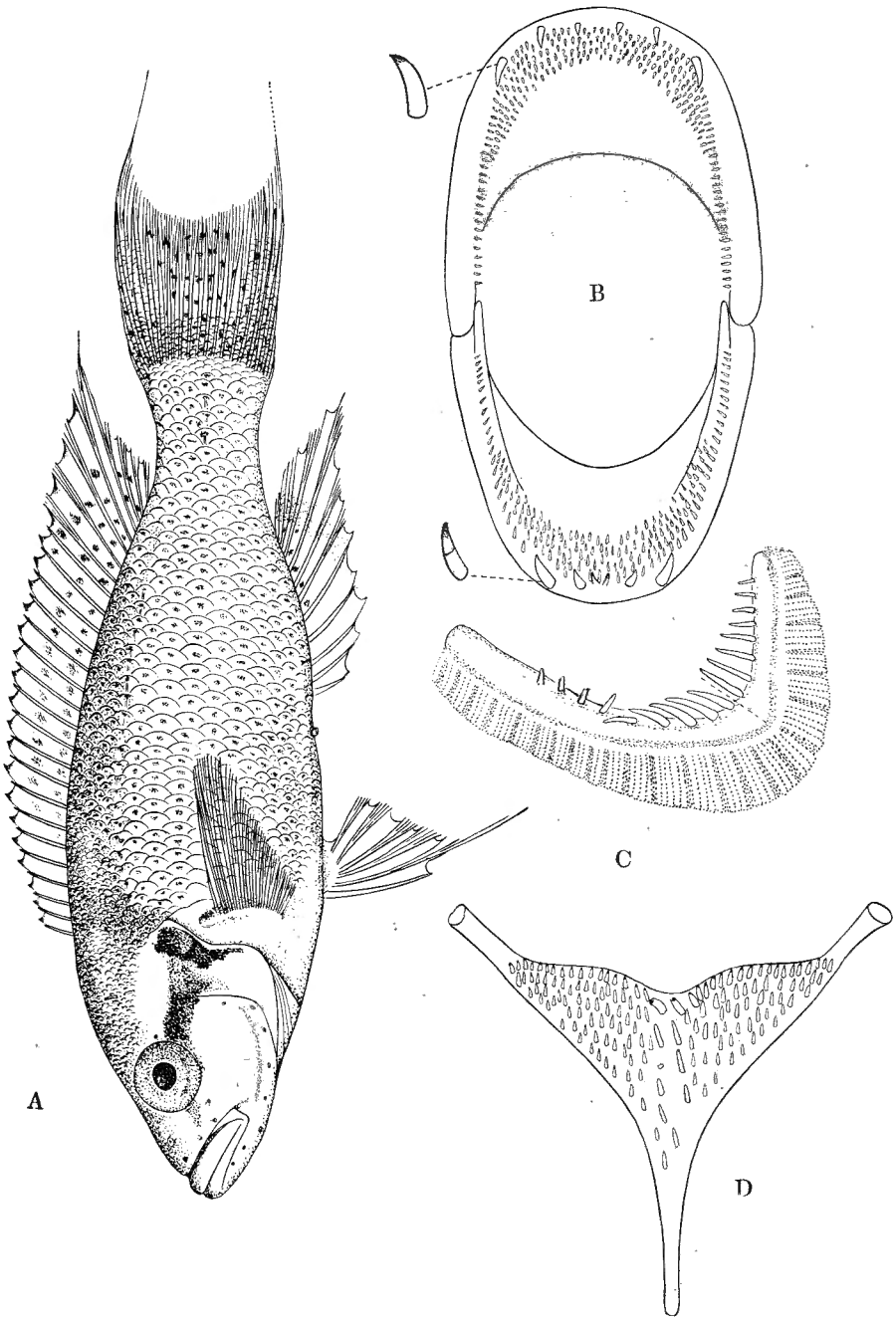

Fig. 1. — *Lamprologus savoryi elongatus* subsp. n.
A: type, station 151 (× 2 1/4); B: dentition; C: anterior gill arch; D : lower pharyngeal bone (enlarged).

Caudal scaly, emarginate; upper and lower lobes sometimes (? when completely preserved) produced into filaments.

Caudal peduncle as deep as long, or a little deeper.

Colour dark brown, darker on each scale in an arc parallel to the posterior edge. A dark band from the eye extending obliquely backwards and downwards on to the operculum, crossing the upper end of the preoperculatum, not quite meeting a vertical black bar on the hind part of the operculum; these bars sometimes obscured by general dark colouring. Five or six broad, dark vertical bars on the body. Vertical fins spotted. Pectorals and pelvics dusky to black.

Type, ♂, 54 + 16 mm (3), Belgian hydrobiological mission (st. 56).

6 paratypes, ♂, 44 + 11 mm, B. de Kabimba, 10-XI-46; ♂, 57 + 13 mm, ♂, 63 + 13 mm, ♂, 63 + 14 mm, ♂, 64 + 14 mm, Belgian hydrobiological mission (st. 202), Mpulungu pier, 27-III-47; ♂, 62 + 12 mm, Belgian hydrobiological mission (st. 261), Kigoma, 24-IV-47.

Lamprologus savoryi elongatus subsp. nov.

(Fig. 1.)

Depth of body 3,2 to 3,7 in the standard length, length of head 2,7 to 3. Snout as long as diameter of eye or a little shorter in specimens of 29 to 38 mm standard length, 1,1 to 1,4 in those of 40 to 62 mm. Diameter of eye 3,5 to 4,4 times in the length of head at 47 to 62 mm (2,8 to 3,5 at 29 to 40 mm); interorbital width 4 to 4,8 (5 to 5,7) in the same length-groups, depth of preorbital 6 to 8 (6 to 9), length of lower jaw 2,1 to 2,5 (2,2 to 3). No scales on the cheek. No suborbital bones; preorbital covered with opaque skin.

Canine teeth 6 in upper jaw, 4 to 6 in lower. Pharyngeal teeth slender, pointed, none notably enlarged.

Gill-rakers 7 to 14 on lower part of anterior arch.

32 to 36 scales in the lateral line series, 9 to 14 between origin of dorsal fin and lateral line, 4 to 6 between pectoral and pelvic fins.

D. $\frac{\text{XIX 8}}{6}, \frac{\text{XIX 9}}{5}, \frac{\text{XX 8}}{2}$. A. $\frac{\text{V 6}}{1}, \frac{\text{VI 5}}{1}, \frac{\text{VI 6}}{6}, \frac{\text{VI 7}}{3}, \frac{\text{VII 6}}{2}$

Pectoral about 3/4 as long as head.

(3) The caudal fin is measured along its middle rays.

Caudal lunate with upper and lower lobes produced into long filaments; dorsal, anal and pelvic fins similarly produced.

Caudal peduncle as long as deep or a little longer.

Colour dark or pale brown; on each scale a darker spot, which in paler specimens is very vague. An oblique bar extending backwards and downwards from eye on to operculum, absent in some specimens; a dark vertical bar on posterior part of operculum. Vertical fins spotted. Pectorals and pelvics dusky or almost colourless. Vague dark vertical bars on the body in some specimens.

Type, ♀, 47 + 9 mm, Belgian hydrobiological mission (st. 151), Kisoje, off the beach and across the river, trawl, 4-III-47.

5 paratypes, ♂, 29 + 7 mm, ♀, 32 + 7 mm, ♀, 33 + 7 mm, ♀, 34 + 7 mm, ♀, 36 + 8 mm, Belgian hydrobiological mission (st. 08), Lagosa Bay, 9 m deep, fine-meshed trawl, 12-XII-46.

2 paratypes, immature, probably ♂, 38 + 7 1/2 mm, and 40 + 8 mm, Belgian hydrobiological mission (st. 10), off Kungwe Bay, 500 m from the coast at a depth of 10-20 m, rocky bottom, fine-meshed trawl.

4 paratypes, ♀, 47 + 9 mm, ♀, 54 + 11 mm, ♂, 62 + 13 mm, ♂, 62 + 13 mm, Belgian hydrobiological mission (st. 319), Mwerasi, rocky bottom at 2-4 m depth, caught with a worm.

1 paratype, ♀, 52 + 9 1/2 mm, Belgian hydrobiological mission (st. 249), Ubwari Peninsula, Manga, stony bottom; seine.

Lamprologus savoryi pulcher subsp. nov.

(Fig. 2.)

Depth of body 2,8 to 3,2 in the standard length, length of head 3 to 3,2. Snout a little longer than the diameter of the eye, which is 3,7 to 4,2 in the length of head. Interorbital width 3,4 to 4 in the length of head, depth of preorbital 5,25 to 6, length of lower jaw 2,1 to 2,5. No scales on the cheek. No suborbital bones; preorbital covered with opaque skin.

Canine teeth 6 in upper jaw, 4 or 6 in lower. Pharyngeal teeth fine, pointed, scarcely larger behind than elsewhere.

Gill-rakers 8 to 10 on lower part of anterior arch, in one specimen 6 on right side, 7 on left; often a considerable space without rakers at the lower end of the arch.

32 to 34 scales in a longitudinal series, 8 or 9 between origin of dorsal and lateral line, 5 or 6 between pectoral and pelvic fins.

D. $\frac{\text{XVIII 8}}{1}, \frac{\text{XVIII 9}}{1}, \frac{\text{XIX 8}}{5}$. A. $\frac{\text{V 6}}{1}, \frac{\text{V 6}}{5}, \frac{\text{VII 6}}{1}$.

Pectoral 4/5 to nearly as long as head, not reaching origin of anal (wrongly given in the drawing).

Caudal scaly, lunate. In both sexes pelvic, dorsal, anal and both lobes of caudal produced into long filaments.

Caudal peduncle as long as deep.

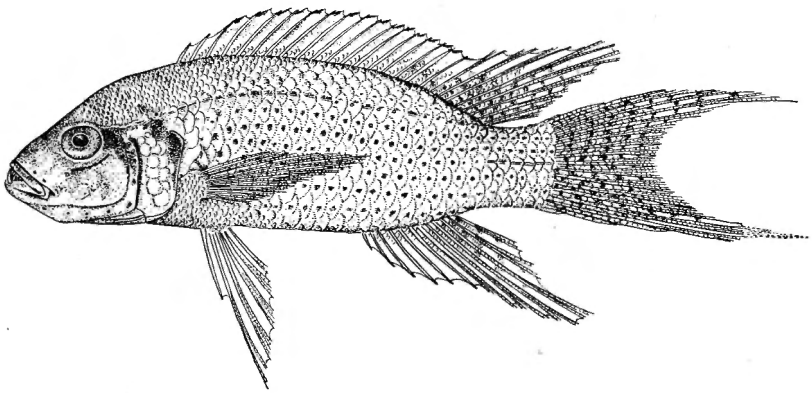

Fig. 2. — *Lamprologus savoryi pulcher* subsp. n., paratype, CHRISTY collection (× 1 1/2).

A dark streak behind eye, curving downwards along posterior edge of preoperculum; a parallel streak on operculum. Principal scales each with a dark spot, these forming six or seven longitudinal series. Dorsal brown, sometimes with black lappets, and spotted; anal brownish, with a few faint dark spots; caudal spotted; pectoral rays finely outlined with pigment.

Type, ♂, 60 + 12 1/2 mm, CHRISTY coll. [B. M. (N. H.) 1950. 4. 1. 7790].

6 paratypes, ♀, 51 + 11 mm, ♀, 53 + 11 mm, ♂, 54 + 11 mm, ♀, 54,5 + 11,5 mm, ♂, 57 + 11 mm, and ♂, 64 + 11,5 mm, CHRISTY coll. The 53 mm specimen is at Tervuren, the others are B. M. (N. H.) 1950. 4. 1. 7789 and 7791-4.

Lamprologus sexfasciatus sp. n.

(Fig. 3.)

Depth of body 2,6 - 3,1 in the standard length, length of head 2,5 - 2,8. Snout as long as (juv.) or a little longer than diameter of eye in specimens of 55 to 77 mm in standard length, nearly 1 1/2 times in specimens of 95 to 116 mm, shorter than eye in those of 50 mm or less. Diameter of eye 3 to 4 times in

length of head, interorbital width 4,7 - 5,7 in specimens of 50 to 77 mm, 4,3 in those of 95 to 116 mm, depth of preorbital 5 - 6,7 in specimens over 50 mm, length of lower jaw 2 - 2,3 (usually 2,2) at all sizes. Lateral line cavities of head rather large. No scales on cheek.

Canine teeth 6 in both upper and lower jaws or 4 only in lower. Lower pharyngeal bone stout; teeth few, enlarged, with spheroidal crowns in the middle of the bone. Gill-rakers 11 to 13 on lower part of anterior arch, those near the joint expanded asymmetrically and spinulose.

34 to 37 scales in the lateral line series, but there are generally 3 to 5 additional scales in the series below the lateral line; 9 to 13 between origin of dorsal and lateral line. Scales on nape and chest very small and rather inconspicuous.

Dorsal $\frac{\text{XVII 10}}{1}$, $\frac{\text{XVIII 9}}{10}$, $\frac{\text{XVIII 10}}{31}$, $\frac{\text{XIX 9}}{1}$, $\frac{\text{XVIII 11}}{1}$ or, totals, $\frac{27}{11}$, $\frac{28}{32}$, $\frac{29}{1}$.

Anal $\frac{\text{V 7}}{1}$, $\frac{\text{VI 6}}{38}$, $\frac{\text{VI 7}}{4}$, $\frac{\text{VII 6}}{1}$ or, totals, $\frac{12}{39}$, $\frac{13}{5}$.

Caudal rounded, or subtruncate with rounded corners. Caudal peduncle as long as high.

Colour : six broad, dark vertical bands, the first on the nape, the sixth at the hind end of the caudal peduncle; the second to fifth extend on to the base of the dorsal fin.

Type, ♀, 88 + 24 mm, M'Toto, rocky islets, 7-III-1947, angling with worm, depth 2-3 m, Belgian hydrobiological mission (st. 156).

14 paratypes, four ♀ s, 55 + 14 mm, 64 + 15 mm, 76 + 19 mm and 76 + 19 mm and ten immat. or with gonads too badly preserved or too small to sex, 48 + 12 mm, 50 + 12 mm, 50 + 12 mm, 50 + 13 mm, 53 + 13 mm, 63 + 16 mm, 64 + 13 mm, 66 + 16 mm, 76 + 19 mm, and 97 + 21 mm. CHRISTY coll. [B. M. (N. H.) 1950. 4. 1. 7431-7444].

3 paratypes, immature, 56 + 14 mm, 57,5 + 12,5 mm, and 61 + 16 mm, Tembwe Bay, near the coast, 12-II-1947, angling with worm, rocky bottom, depth 3 m, Belgian hydrobiological mission (st. 118).

1 paratype, immat. 67 + 18 mm. Vua Bay, north, stony shore, 12-III-1949, angling with worm, Belgian hydrobiological mission (st. 165).

16 paratypes, ♂ and ♀ immat., 52 + 11 mm, 52 + 12 mm, 54 + 12 mm, 57 + 12 mm, 62 + 12 mm, 62 + 13 mm, 63 + 12 mm, 62 + 14 mm, 63 + 15 mm, 65 + 15 mm, 68 + 13 mm, 65 + 17 mm, 65 + 18 mm, 68 + 15 mm, 70 + 15 mm, and 69 + 17 mm, Mpulungu

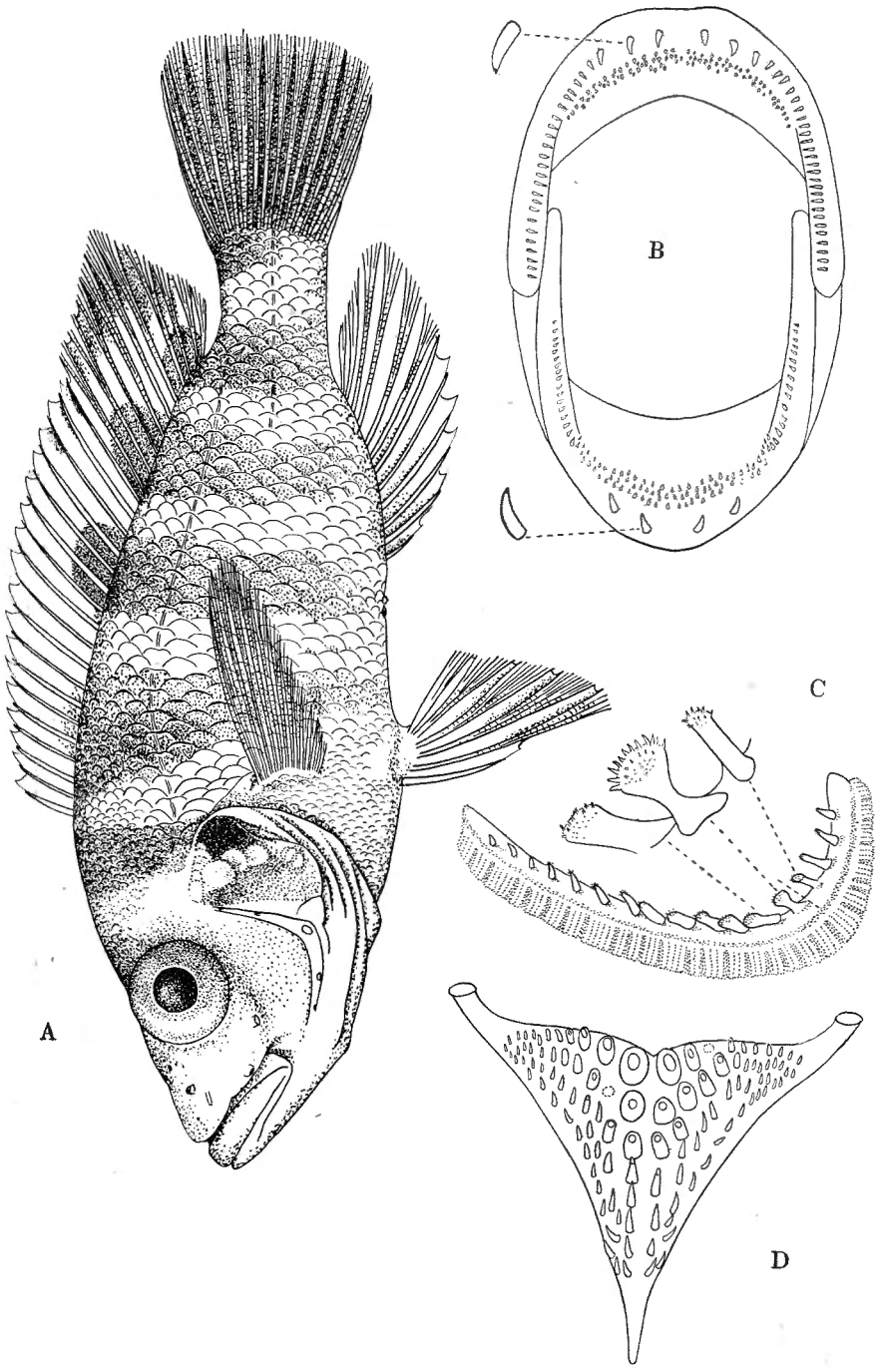

Fig. 3. — *Lamprologus sexfasciatus* sp. n.
A: type, station 156 (× 1 1/3) B: dentition; C : anterior gill arch; D : lower pharyngeal bone (enlarged).

pier, 27-III-1947, angling with worm, depth 4 m, bottom of gravel and pebbles, Belgian hydrobiological mission (st. 202).

5 paratypes, ♀, 89 + 22 mm, ♂, 101 + 25 mm, ♂, 109 + 29 mm, ♂, 110 + 29 mm, ♂, 116 + 29 mm., Mtosi Bay, great rocks of the south coast, 2-IV-1947, angling with worm, rocky bottom, depth 2-4 m, Belgian hydrobiological mission (st. 219).

2 paratypes (sex ?), 76 + 19 mm, ♀, 83 + 19 mm, M'Toto, rocky islets, 27-V-1947, angling with worm, depth 1-3 m, Belgian hydrobiological mission (st. 316).

2 paratypes, ♂, 87 + 18 mm, ♀, 88 + 21 mm, Mwerasi, along the rocky south shore, 28-V-1947, angling with worm, depth 2-4 m, rocky bottom, Belgian hydrobiological mission (st. 319).

Intestinal contents : frequently mollusc shells, e. g. young *Neothauma*.

Affinities : This species is near *L. tretocephalus* Blgr., which resembles it in having dark vertical bars on the body; but these are only five instead of six. The number of scales is about the same (33-37) and the pharyngeal teeth are similar. *L. tretocephalus,* however, has only 5 to 7 gill-rakers on the lower part of the anterior arch and there may be 8 canines in the lower jaw. The lower jaw is somewhat shorter, 2,5 to 2,9 times in the head in four specimens of 43 to 97 mm standard length. A comparison of the anal fins shows VI 6 as the mode in both species, but the alternatives in *L. tretocepalus* are VI 5 or V 7.

Lamprologus christyi sp. n.

(Fig. 4.)

Depth of body 3,2 - 3,8 in the standard length, length of head 2,8 - 3,25. Snout longer than diameter of eye, which is 3,3 - 4,6 in the length of head. Depth of preorbital 4,8 - 6 in the length of head, interorbital width 4 - 4,8, length of lower jaw 2,4 - 2,7. Maxillary not extending to below anterior edge of eye. 6 canines in both upper and lower jaws; inner teeth villiform, in a broad band. Cheek naked or with a group of small scales, often unequal on right and left sides. 5 or 6 short gill-rakers on lower part of anterior arch. Lower pharyngeal bone triangular, with the anterior teeth small, unicuspid and slightly curved backwards, the posterior much thicker, with a central group molariform. Scales of irregular size, 50 - 60 in a longitudinal series; lateral lines not perfectly continuous, especially

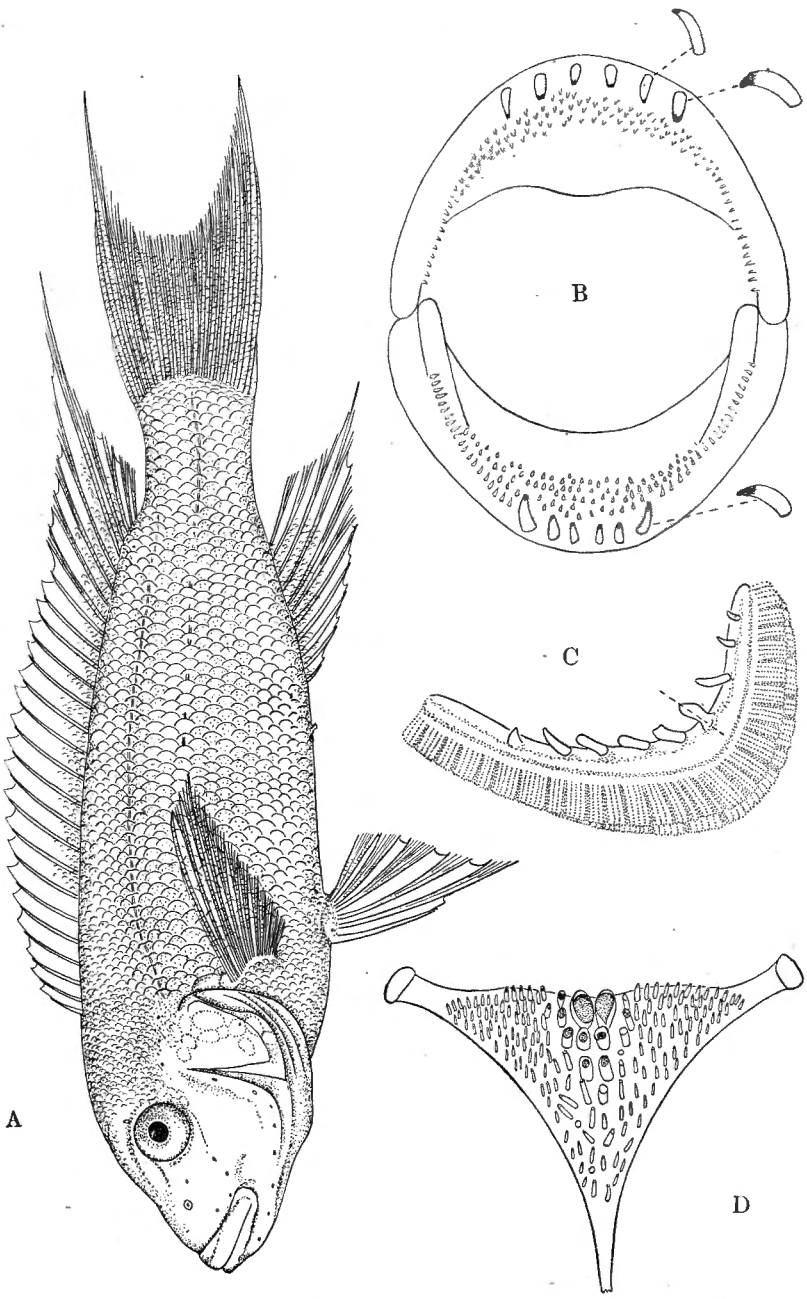

Fig. 4. — *Lamprologus christyi* sp. n.
A: type, station 219 (× 1 1/3); B: dentition; C: anterior gill arch; D: lower pharyngeal bone (enlarged).

the inferior, which begins more anteriorly than in other species (4). Scales on nape and chest small.

Dorsal $\frac{XIX\ 9}{4}$, $\frac{XIX\ 10}{9}$, $\frac{XX\ 9}{7}$ or, total of spines and soft rays, $\frac{28}{4}$, $\frac{29}{16}$; last spine equal to half length of head.

Anal $\frac{IV\ 7}{1}$, $\frac{V\ 6}{5}$, $\frac{V\ 7}{14}$; totals $\frac{11}{6}$, $\frac{12}{14}$; last spine about as long as last dorsal. 3rd. and 4th. soft anal rays and 5th. soft dorsal produced into filaments reaching beyond origin of caudal fin. Caudal crescentic, with upper and lower rays produced into filaments.

Body chocolate brown, slightly darker dorsally than ventrally, with sometimes traces of dorsal transverse bands. Fins a uniform dark brown.

Type, ♂, 101 + 36 mm. Mtosi Bay, great rocks of south coast, 2-IV-1947, angling with worm, rocky bottom, depth 2 to 4 m, Belgian hydrobiological mission (st. 219).

5 paratypes, ♂, 76 + 18 mm, ♂, 79 + 16 mm, (sex?) 79 + 17 mm, ♀, 80 + 16 mm, ♂, 84 + 18 mm, L. Tanganyika, CHRISTY collection [B. M. (N. H.) 1950 4. 1. 7445-7449].

14 paratypes, ♂, 62 + 14 mm, ♂, 67 + 15 mm, ♂, 71 + 14 mm, ♂, 70 + 14 mm, ♂, 77 + 15 mm, ♂, 80 + 14 mm, ♂, 80 + 17 mm, ♂, 83 + 17 mm, ♀, 85 + 19 mm, ♂, 85 + 18 mm, ♀, 87 + 16 mm, ♀, 88 + 19 mm, bad state, 99 + 20 mm, ♂, 104 + 22 mm, Mtosi Bay, great rocks of the south coast, 2-IV-1947, angling with worm, rocky bottom, depth 2 to 4 m, Belgian hydrobiological mission (st. 219).

Named in honour of Dr. C. CHRISTY, first collector of this species in Lake Tanganyika.

Affinities : On account of its forked tail it seems natural to compare *L. christyi* with *L. furcifer* BOULENGER. In the types of this species, respectively 100 and 68 mm in standard length, there are 14 or 16 gill-rakers, instead of 5 or 6, 41 or 42 scales in a longitudinal series, 6 or 7 anal spines, a narrower interorbital region, larger eye, narrower preorbital, longer lower jaw, etc. In fact the two species have little in common. *L. petricola* POLL has fewer scales (30 - 36 in a longitudinal

(4) In the type the first scale of the lower lateral line is the 9th behind the head, in other specimens it is in various positions from 7th to 15th.

series), head of a different shape, and a rounded caudal fin, although the dentition and gill-rakers are similar. *L. savoryi* POLL and its subspecies (see above), which have a crescentic caudal fin, differ in almost every other respect.

Lamprologus pleuromaculatus sp. n.

(Fig. 5.)

Depth of body 3,8 - 5 in the standard length, length of head 2,3 - 3,2. Snout as long as eye at 60 - 65 mm standard length, shorter below this length and once to 1 1/5 as long above it. Eye 2,6 (juv.) - 3,7 in the length of head, depth of preorbital 5,8 - 8, inteorbital width 4,8 - 7, length of lower jaw 1,9 - 2,3. Maxillary hidden under preorbital when mouth is closed, extending to below anterior fourth or third of eye. Canines $\frac{6 - 8}{4 - 8}$; inner teeth villiform, in a broad band. Cheek naked or with a group of small scales behind. 9 - 12 gill-rakers on lower part of anterior arch, often compressed and with lateral expansions in adult. Lower pharyngeal bone triangular, with long posterior arms; all teeth fine, those of the posterior border somewhat larger but in no wise rounder or molariform. Scales 47 - 60 in a longitudinal series, minute on nape and chest, where they are absent in places.

Dorsal $\frac{\text{XVII 10}}{2}$, $\frac{\text{XVII 11}}{1}$, $\frac{\text{XVIII 9}}{4}$, $\frac{\text{XVIII 10}}{39}$, $\frac{\text{XVIII 11}}{1}$, $\frac{\text{XIX 9}}{1}$, $\frac{\text{XIX 10}}{2}$; or total of spines and soft rays $\frac{27}{6}$, $\frac{28}{41}$, $\frac{29}{3}$; last spine 2/5 length of head; soft rays not produced.

Anal $\frac{\text{V 8}}{10}$, $\frac{\text{V 9}}{1}$, $\frac{\text{VI 7}}{7}$, $\frac{\text{VI 8}}{30}$, $\frac{\text{VII 8}}{2}$ or total $\frac{13}{17}$, $\frac{14}{31}$, $\frac{15}{2}$; last spine about as long as last dorsal spine; soft rays not produced. No scales on dorsal and anal fins. Pectoral shorter than head, not reaching origin of anal. Pelvic not or but little produced, not reaching origin of anal. Caudal truncate, the corners not produced. Caudal peduncle 1 1/6 - 1 1/2 as long as high.

Coloration: Yellowish, more or less silvery beneath, brown blotches and longitudinal sinuous lines more or less

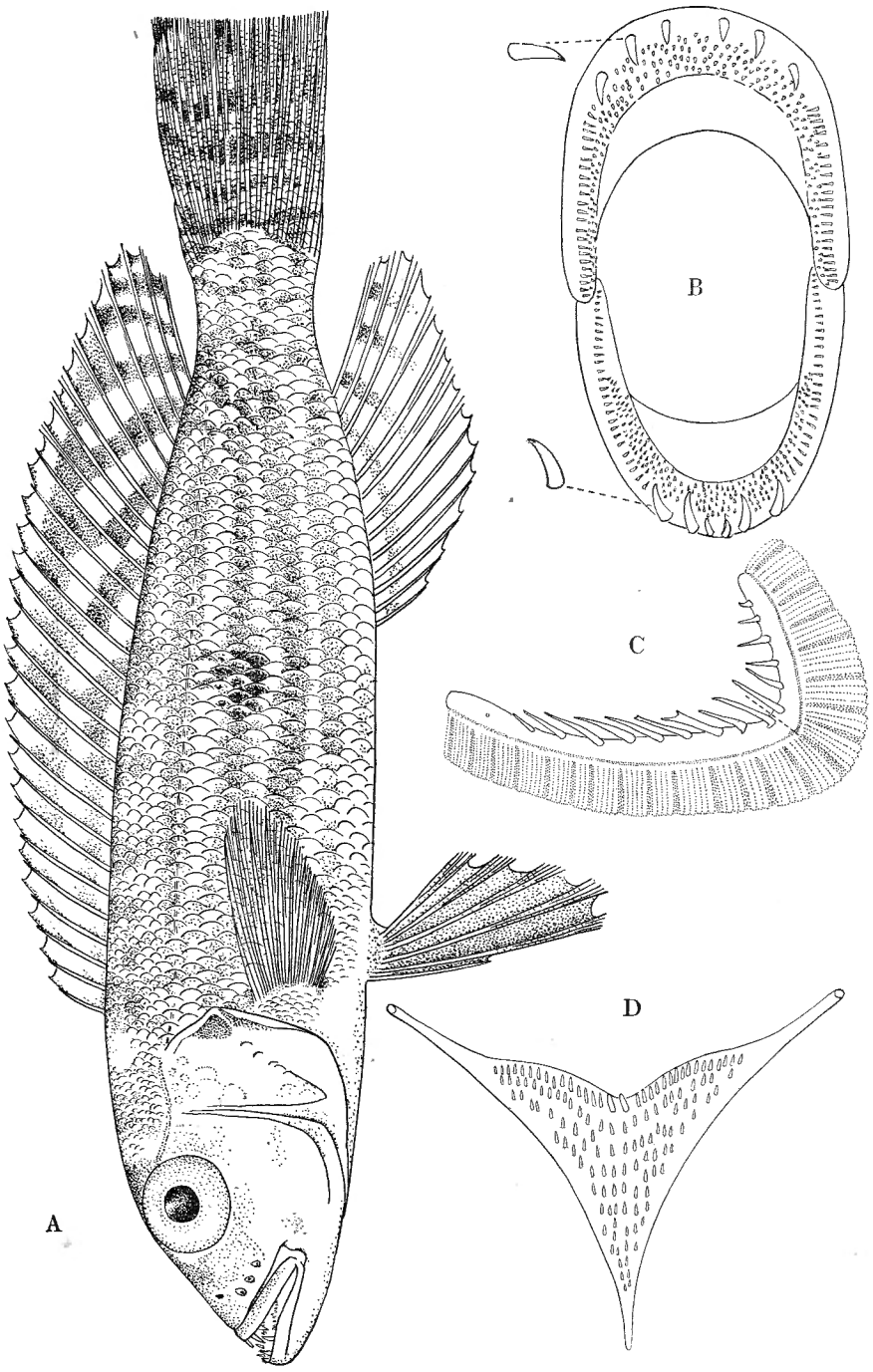

Fig. 5. — *Lamprologus pleuromaculatus* sp. n.
A: type, CHRISTY collection (× 2 1/2); B: dentition; C: anterior gill arch; D: lower pharyngeal bone (enlarged).

visible; a central lateral more intense macula. Dorsal, anal and caudal with black lines, transverse and very conspicuous on caudal; external border of dorsal and superior border of caudal black. Pelvic more or less blackish.

Type, ♀, 62 + 11 mm, Usumbura, L. Tanganyika, coll. CHRISTY [B. M. (N. H.), 1950, 4. 1. 7453].

7 paratypes, ♀, 53 + 11 mm, ♀, 58 + 10 mm, ♀, 58 + 11 mm, ♀, 63 + 14 mm, ♂, 67 + 15 mm, ♂, 69 + 14 mm, ♂, 69 + 13 mm, Usumbura, L. Tanganyika, coll. CHRISTY [B. M. (N. H.), 1950. 4. 1. 7450-52 and 7454-7].

1 paratype, bad state, 57 + 12 mm, at 5 km off the shore of the lake between Usumbura and the Great Ruzizi, 20-I-1947, fishing with trawl, muddy bottom, depth 30-40 m. Belgian hydrobiological mission (st. 71).

1 paratype, immature, 51 + 11 mm, Rumonge, sandy beach, rocky in places, 23-I-1947, fishing with seine, Belgian hydrobiological mission.

1 paratype, ♀, 73 + 17 mm, Rumonge Bay, 23-I-1947, fishing with trawl, bottom variable, depth 5-40 m, Belgian hydrobiological mission (st. 83).

2 paratypes, ♂, 49 + 11 mm, ♂, 61 + 14 mm, Lubindi, sandy beach, rocky in places, 14-IV-1947, fishing with seine, Belgian hydrobiological mission (st. 240).

2 paratypes, ♀, 57+12 mm, ♂, 72,5+16,5 mm, Usumbura, angling with worm, depth 4 m, sandy-muddy bottom, Belgian hydrobiological mission (st. 242).

5 paratypes, immat., 34 + 9 mm, immat., 46 + 11 mm, immat. 49 + 12 mm. ♂, 62 + 14 mm, ♂, 70 + 14 mm, Burton Gulf, off Baraka towards Musabah, 18/19-IV-1947, fishing with trawl, depth 6-15 m, Belgian hydrobiological mission.

7 paratypes, immat., 34 + 10 mm, ♀, immat., 44 + 11 mm, immat. 45 + 10 mm, ♂, immat., 44 + 12 mm, ♂, immat., 43 + 15 mm, ♂, 63 + 15 mm, ♂, 73 + 15 mm, Burton Gulf, beach and shore of Musabah, 18-IV-1947, fishing with seine, bottom sandy-muddy, Belgian hydrobiological mission.

10 paratypes, immat., 44 + 10 mm, immat., 54 + 11 mm, ♀, 53 + 12 mm, immat., 60 + 12 mm, ♀, 60 + 12 mm, ♀, 64 + 13 mm, ♂, 77 + 17 mm, ♂, 83 + 14 mm, ♂, 83 + 16 mm, ♂, 85 + 17 mm, Usumbura pier, 6-V-1947, angling with worm, muddy-sandy bottom, depth 3-4 m, Belgian hydrobiological mission (st. 278).

3 paratypes, immat., 49 + 10 mm, bad state, 59 + 14 mm, ♂, 73 + 14 mm, Musabah end of Burton Gulf, 10-V-1947, fishing with seine, depth 3-4 m, Belgian hydrobiological mission (st. 290).

1 paratype, ♂, 76 + 14 mm, Kamango, north beach, 8-V-1947, fishing with seine, sandy bottom, Belgian hydrobiological mission (st. 284).

8 paratypes, immat., 40 + 8 mm, 55 + 10 mm, 64 + 12 mm, ♂, 64 + 12 mm, (sex ?) 67 + 13 mm, ♂, 74 + 14 mm, ♂, 75 + 15 mm, Burton Gulf, coll. CHRISTY [B. M. (N. H.) 1950. 4. 1. 7458-65].

The nineteen recognisable males measure 49 to 83 mm in standard length, and fourteen of them are 69 to 83 mm. The ten females are 53 to 73 mm, and nine of them are 53 to 64 mm in standard length. This may indicate, though it does not prove, that males grow larger than females.

Affinities : This new species resembles *Lamprologus pleurostigma* Blgr. in having an elongate body, small scales and a similar (but not identical) coloration. *L. pleurostigma* has more than 60 scales in longitudinal series (60-78), more than 12 gill-rakers on the lower part of the anterior arch (13-18). The body is usually more slender, the snout is more acute and the caudal peduncle is longer. The coloration, with a similar black blotch on the side in both species, shows more intense and regularly disposed black stripes on the vertical fins in *L. pleuromaculatus,* especially the caudal fin, which is only greyish with a dark posterior border in *L. pleurostigma.*

Institut royal des Sciences naturelles de Belgique,
Musée royal du Congo belge et
British Museum (Natural History).

Ad. Goemaere, Imprimeur du Roi, 21, rue de la Limite, Bruxelles