Haplochromis ushindi spec. nov., the largest piscivorous cichlid in the Mwanza Gulf area of Lake Victoria (East Africa) before the Nile perch upsurge

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Key words: Cichlidae; piscivore; Lake Victoria; *Haplochromis*; new species.
A new species of a haplochromine cichlid (Pisces: Cichlidae: Haplochrominae) from Lake Victoria is described. It is the largest species known from the Mwanza gulf area before the Nile perch upsurge in 1986. Specimens have been collected between 1975 and 1985. Presumably, the species does not exist anymore and is considered to be extinct.

Introduction

Prior to the explosive increase of the Nile perch in the Mwanza Gulf area around 1985 (Witte et al., 1992a, b) the piscivore haplochromines with an estimated number of 100+ species, were considered the most speciose trophic group (Witte & van Oijen, 1995). Piscivores were found in all habitats and exhibited the largest variation in size. The maximum standard length varied between 9 and 26 cm (van Oijen, 1982).

The largest of these species is described below. This new species is, however, not the largest cichlid species that lived in the area. Kees Goudswaard (pers. comm.) observed *Oreochromis* specimens with a total length up to 60 cm. The Graham collection in the Natural History Museum, London, made from 1927-1928 when only a small gill net fisheries existed in the lake, contains several specimens of piscivorous haplochromines longer than 30 cm.

The new species is represented in the RMNH collection by less than 100 specimens caught between 1975 and 1985. Colour slides are available for six of these specimens. Notwithstanding continuing collecting activities of the Haplochromis Ecology Survey Team (HEST), after 1985 no more specimens were caught. As far as known no specimens of this species are available in other collections.

Terminology and measurements follow Barel et al. (1976, 1977), Hoogerhoud & Witte (1981), Witte & Witte-Maas (1981) and van Oijen (1991).

Description

The following description is based on adult and subadult specimens and provides tables of measurements of the holotype. Measurements of the paratypes will be presented in a subsequent paper in which also more information on the ecology of the species will be given.

The species is included in the genus *Haplochromis* for reasons given by van Oijen (1996).

Haplochromis ushindi spec. nov.
(figs 1-3, tab. 1)

Haplochromis "sharpsnout" van Oijen, 1982: 341, 353.

Material.- Holotype, ♂, 168.0 mm, RMNH 76623, central Mwanza Gulf, north of Nyegezi Bay, 22.iv.1980 Md 1. Paratypes: 1 ♀, 133.5 mm, RMNH 76626, 28.v.1975 Md 3, collected by G. Anker & C. Barel; 1 ♀, 147 mm, RMNH 76635, 30.ix.1977 Md 4; 1 ♀, 193.3 mm, RMNH 76732, 23.xii.1977 Md 1-3; 1 ♀, 141.5 mm, RMNH 76615, 5.v.1978 Md 1; 1 ♀, 137 mm, RMNH 76611, 5.v.1978 Md 3; 1 ♀, 195 mm, RMNH 76728, 5.v.1978 Md 3; 1 ♀, 210 mm, RMNH 76730, 18.viii.1978 Md; 1 ♀, 174 mm, RMNH 76655, 18.viii.1978 Md 1; 1 ♂, 165 mm & 1 ♀, 226 mm, RMNH 76735, 7.xi.1978 NFPC 1; 1 ♀, 181.5 mm, RMNH 76729, 7.xi.1978 NFPC 2; 1 ♂, 178 mm + 2 ♀ 170, 189 mm, RMNH 76753, 7.xi.1978 NFPC2; 2 ♀♀ 133, 142 mm, RMNH 61402, 6.vi.1979 Md 3; 1 ♀, 148 mm, RMNH 76630, 21.iii.1980 Md 2; 1 ♀, 154 mm, RMNH 76633, 21.iv.1980 Md 1; 1 ♀, 216 mm, RMNH 77377, 22.iv.1980 Md 2; 1 ♀, 163.5 mm, RMNH 76625, 23.iv.1980 Md 5; 1 ♀, 166 mm, RMNH 76608, 25.iv.1980 Md 3. All specimens have been collected by the Haplochromis Ecology Survey Team in the Mwanza Gulf of Lake Victoria, Tanzania, except indicated otherwise.

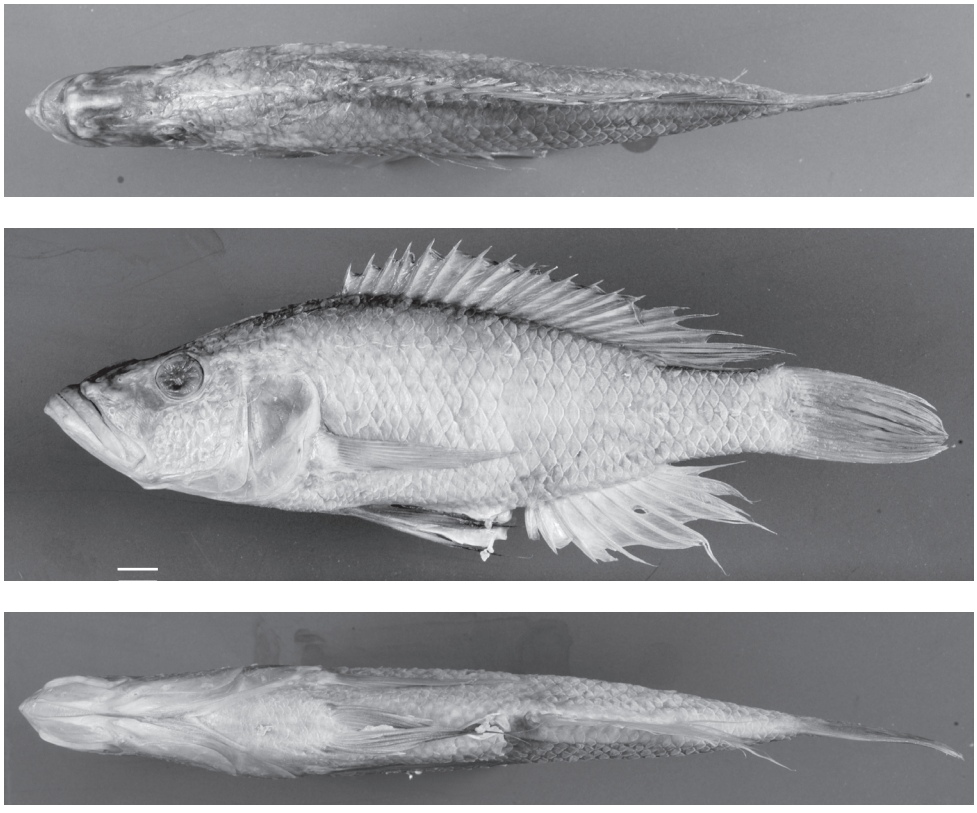

Fig. 1. *Haplochromis ushindi* spec. nov. Holotype RMNH 76623, dorsal, lateral and ventral view, respectively. Scale equals 10 mm.

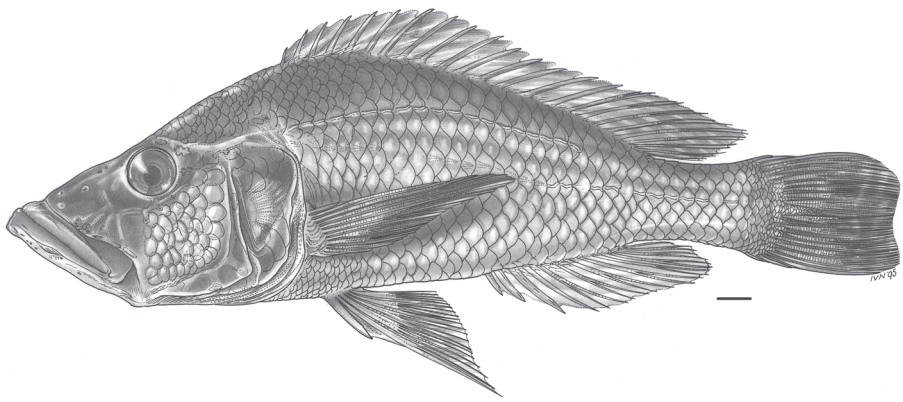

Fig. 2. *Haplochromis ushindi* spec. nov. Paratype RMNH 77377. Scale equals 10 mm.

Diagnosis.— A large, relatively slender and laterally compressed macrognathic species with large head, a long acute snout, an acute lower jaw and a prominent acute angular area. Sides of lower jaw relatively flat. Dorsal profile of head slightly concave. Body without bars or stripes. Live colours are dark (yellowish) grey dorsally, silvery white with a yellow flush laterally, and whitish ventrally. The species in its deepwater facies resembles *H. arcanus* Greenwood & Gee, 1969, but the latter species is much darker and smaller.

Description is based on the 21 specimens listed ranging from 137 to 230 mm SL.

Habitus.— A large species with a clear predatory facies. Body slender and moderately laterally compressed. Head relatively large, with a deep cheek, snout acutely tapering and an acute angular area. Caudal peduncle longer than deep. Dorsal profile of head slightly concave to almost straight, with a relatively long incurvation above eye. Premaxillary pedicel distinct, but smoothly merging into the incurvation. Snout

Fig. 3. *Haplochromis ushindi* spec. nov. Live colours of a quiescent female of nearly 30 cm total lenght.

Table 1. Linnear and angular measurements of holotype of *Haplochromis ushindi* spec. nov. RMNH 76623.

Standard Length (SL)		168.0
Body Depth	% SL	30.2
Pectoral Fin Length	% SL	25.6
Caudal Peduncle Length	% SL	13.0
Caudal Peduncle Depth	% SL	10.1
Caudal Fin Length	% SL	21.4
Head Length (HL)	% SL	36.7
Snout Length	% HL	38.8
Snout Width	% HL	28.6
Head Width	% HL	36.6
Interorbital Width	% HL	17.5
Preorbital Width	% HL	21.2
Lachrymal Width	% HL	25.6
Preorbital Depth	% HL	21.2
Eye Length	% HL	20.5
Cheek Depth	% HL	27.5
Lower Jaw Length	% HL	52.9
Lower Jaw Width	% HL	17.1
Upper Jaw Length	% HL	40.8
Premax. Pedicel Length	% HL	30.6
Dorsal Head Inclination		24°
Premaxillary Pedicel Inclination		30°
Snout Acuteness		60°
Gape Inclination		45°

Table 2. Qualitative measurements and counts of holotype of *Haplochromis ushindi* spec. nov. RMNH 76623.

Dorsal Head Profile (curvature)	0/-
Premaxillary Pedicel Prominence	+
Lower Jaw Anterior Extension	+
Mental Prominence	+
Lip Thickening	0
Premaxilla Beaked	0/+
Premaxilla Expanded	+
Maxillary Posterior Extension	++
Cephalic Lateral lines Pores: Width	0/+
Lateral Line Scales	33
Lateral Line- Dorsal Fin (Sc. rows)	5
Pectoral-Pelvic Fin Bases (Sc. rows)	6
Cheek (Vertical Sc. rows)	4
Dorsal Fin (Spines/Rays)	XV/9
Anal Fin (Spines/Rays)	III/10

acute. Gape moderately oblique. Premaxilla slightly rostro-ventrad expanded medially, but more expanded in larger specimens. A small part of maxilla exposed, vertical line through its posterior most point not touching anterior eye margin. Lips broad, not thickened. Lateral snout outline isognathous to slightly prognathous. Tip of lower jaw protruding. Rostral lower jaw outline slightly convex to straight. Mental area acute, with a distinct mental prominence. Sides of lower jaw slightly oblique. Horizontal limb of preoperculum distinctly declining ventrad, vertical limb of preoperculum inclining caudad. Cephalic lateral line openings enlarged, lateral line canals on lacrymal not distinct. Eye round, relatively small, its dorsal margin not touching dorsal profile of head. Pupil ovoid, an aphakic space rostral and ventral to the lens.

Fins.— Pectoral and pelvic fins reach a vertical line through origin of anal fin, except in smaller juveniles. Anal and dorsal fins remain separated from vertical line through base of caudal fin. Caudal fin outline subtruncate and slightly emarginate.

Scales.— Scales on cheek, gill cover, interoperculum and nuchal area cycloid, remainder of body with weakly ctenoid scales. Gradual transition of scales in size of chest to scales of adjacent areas. Caudal fin base and membrane of proximal half of caudal fin covered with elongate, weakly ctenoid scales,

Oral teeth.— Shape. Teeth in outer rows of both jaws in adult specimens moderately stout, moderately to moderately strongly curved acutely pointed unicuspids that are circular in cross section, teeth of inner rows with smaller and more slender and moderately curved unicuspids. In all rows size of teeth decreases from medial to lateral.

Dental arcade and toothband. Dental arcade rounded; 2-4 and 2-3 inner rows in upper jaw and lower jaw, respectively.

Counts and setting. Outer row of upper jaw with 56-74 teeth and outer row of lower jaw with 42-52 teeth. Number of teeth increases with length of specimen. Outer teeth in both jaws regularly set at a distance about equal to diameter of tooth base.

Implantation. Outer teeth in upper jaw erect (rostrally) to moderately recumbent (caudally), outer teeth in lower jaw erect (rostrally) to slightly recumbent (caudally).

Colouration.— Live colours of quiescent males. Snout dark grey with a yellow flush. Head and body greenish-yellow dorsally, yellowish ventrally. A dark opercular blotch on gill cover. Dorsal fin greyish with red streaks between rays. Lappets dark grey. Caudal fin dark proximally, hyaline distally, its caudal margin orange red. Dark, sometimes reddish, spots between rays. Anal fin red proximally, grey bluish distally. Three large yellow egg dummies on caudal part of fin. Pectoral fins hyaline, pelvic black.

Live colours of females and juveniles. Tip and dorsal part of lower lip, upper lip and snout dark yellowish grey, lower jaw white laterally. Cheek silvery with a faint yellowish flush. Ventral side of head, preoperculum, ventral part of gill cover and branchiostegal membrane white. Dorsal part of gill cover apart from a dark opercular blotch, white with yellow flush. Dorsal part of head and body dark, brownish. Flank yellowish white. Chest, belly and ventral side whitish. Dorsal fin yellowish hyaline. Dark reddish spots and streaks between rays. Caudal fin proximally grey-brownish, distally hyaline. Anal fin hyaline rostrally and proximally, its caudal corner with a yellowish flush. Anal fin sometimes with two or three faint orange spots with a white rim. Rays of pectoral fins dark, membrane hyaline. Pelvic fins hyaline.

Colour of preserved specimens. Apart from a dark opercular blotch, dorsal head surface and dorsum, head and body uniformly yellowish brown. Specimens collected by Anker and Barel, which were not fixed in formalin before they were preserved in alcohol, have ventral parts of head and body silvery white.

Distribution.— Only known from the southern part of Lake Victoria.

Ecology.— Habitat. Most adult specimens were caught with a bottom trawl in the northern part or the entrance of the Mwanza Gulf, over a mud bottom with a depth of 15-25 m. Juvenile specimens were caught in shallower parts of the Mwanza Gulf. A juvenile of 44 mm SL, was caught in the Butimba Bay over mud, at a depth of 2-4 m.

Food. Piscivorous.

Breeding and growth. Judging from to the available specimens, females grow larger than males. Specimens start to mature at a length of ca 150 mm SL.

Etymology.— The species name *"ushindi"* is Swahili for "victory", which is used as a noun in apposition. It refers to the fact that this is the largest species amongst the haplochromine cichlid species known from the Mwanza area of Lake Victoria up to now. Regarding its length it was the champion of the hundreds of species that lived in the area till before 1986.

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