

## Rediscovery of the Pangasiid Catfish *Helicophagus typus* in Borneo

The molluscivorous pangasiid catfish genus *Helicophagus* contains two species, *H. wandersii* Bleeker, 1858, and *H. typus* Bleeker, 1858 (ROBERTS & VIDTHAYANON, 1991; VIDTHAYANON, 1993). *H. wandersii* is known from Sumatra Island and Indochina (Mekong and Chao Phraya River basins), the species being common in lowland areas of the latter (ROBERTS & VIDTHAYANON, 1991). On the other hand, *H. typus* was originally described by BLEEKER (1858) from Palembang, Sumatra, on the basis of a single specimen. A few examples only of the species have been reported from Sumatra (Palembang) and Southeast Borneo (Banjermasin) (ROBERTS & VIDTHAYANON, 1991). Although ROBERTS & VIDTHAYANON's (1991) revision of the Pangasiidae confirmed the identity of two specimens collected in 1908 from Palembang, Sumatra (ZMA 120. 525), as *H. typus*, no record of the species has been available from Sumatra since. The most recent record of *H. typus* is that of HARDENBERG (1948), the only record from Borneo, based on a specimen collected from Banjermasin in 1940. However, the specimen was probably lost during World War II (ROBERTS & VIDTHAYANON, 1991; VIDTHAYANON, 1993). Because ROBERTS & VIDTHAYANON (1991) could not re-examine the specimen, they were doubtful of the occurrence of the species in Borneo. Consequently, the status of *H. typus* in Borneo and Sumatra has remained uncertain to the present time.

On 27 January 1997, we obtained a specimen of pangasiid fish which was subsequently identified as *Helicophagus typus*, at Pasar (market) Plamboyan, Pontianak, West Kalimantan (Borneo), Indonesia. The original collection locality most probably was in the Kapuas River basin. This specimen (MZB 8641) (Fig. 1), now deposited at Museum Zoologicum Bogoriense, Bogor, Indonesia, is herein described in detail. It is evidence for survival of the species to the present time; furthermore, it is the first record of the species from the Kapuas River basin and confirms its distribution on Borneo Island (Fig. 2). Methods for counts and measurements followed ROBERTS & VIDTHAYANON (1991).

**Morphology:** All counts and measurements are shown in Table 1. The specimen, 205.1 mm in standard length (SL), was identified as a species of *Helicophagus* on the basis of its small and conical head, relatively elongated snout, narrow mouth (mouth width less than 6.0% SL), pair of maxillary and mandibular barbels, and posterior nostril in line with the anterior nostril and middle of the eye. The specimen was identified as *H. typus* by its undivided crescent tooth-band on the premaxilla and two tooth patches on the prevomer (Fig. 3), 28 gill rakers on the leading edge of the first gill arch (right side), numerous small gill rakers on the anterolateral face of the first gill arch, and 29 anal fin rays.

**Coloration:** In alcohol, dorsal surface of body blackish. Dorsal surface of head blackish with a white spot, slightly bigger than eyes at the anterior fontanelle. Ventral surface of body and head white. Membranes of dorsal, pectoral and caudal fins blackish. Other fins whitish. Maxillary and mandibular barbels blackish and white, respectively. Color when fresh similar to above, except for silvery luster on body and head.

Table 1. Meristic and morphometric characters of *Helicophagus typus* (MZB 8641)

Standard length (SL; mm):	205.1
Meristics	
Dorsal fin rays	I, 6
Anal fin rays	29
Pectoral fin rays	I, 12
Pelvic fin rays	6
Principal caudal fin rays (upper + lower)	8 + 9
Gill rakers on leading edge of 1st gill arch (right side)	28
Vertebrae* (abdominal + caudal = total)	16 + 30 = 46
Morphometrics	
In SL (%)	
Head length	21.6
Body depth	25.9
Caudal peduncle length	16.8
Caudal peduncle depth	5.9
Predorsal length	36.2
Preanal length	59.1
Prepelvic length	50.1
Dorsal fin base length	7.2
Dorsal fin height	16.9
Dorsal fin spine length	14.7
Anal fin base length	27.2
Anal fin height	12.4
Pectoral fin length	14.6
Pectoral spine length	13.7
Pelvic fin length	10.0
Adipose fin base length	3.3
Caudal fin length (upper lobe)	22.0
Mouth width	5.8
In Head length (%)	
Head depth	39.5
Head width	49.4
Snout length	32.1
Mouth width	26.9
Lower jaw length	14.4
Eye diameter	11.1
Interorbital width	41.1
Length of maxillary barbel	86.2
Length of mandibular barbel	37.0

\*including five vertebrae comprising the Weberian complex.



Figure 1. *Helicophagus typus*, 205.1 mm SL, fresh specimen purchased from Pasar (market) Plamboyan, Pontianak, western Borneo (MZB 8641).

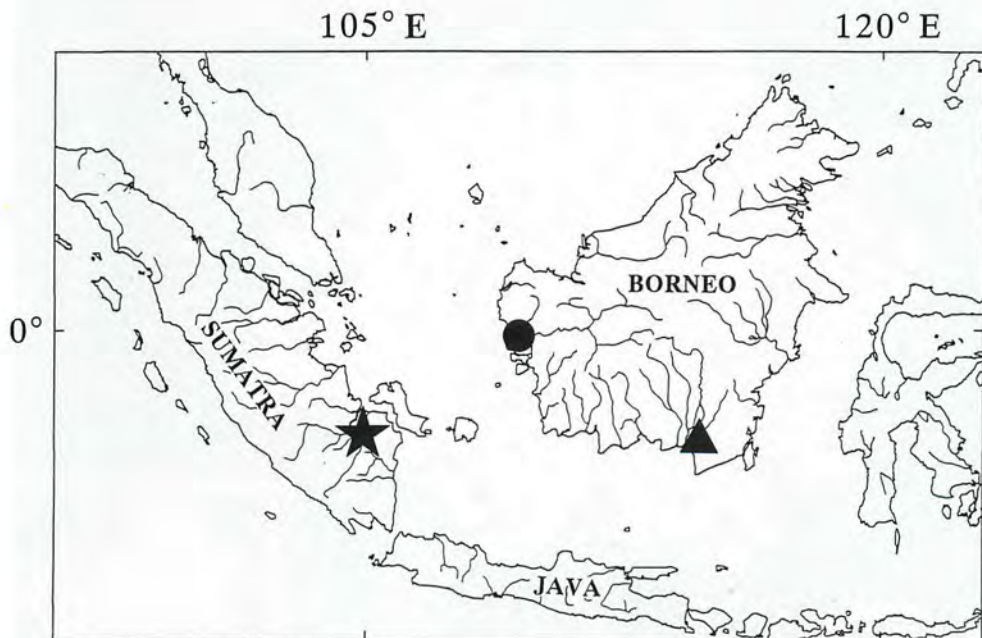


Figure 2. Distributional map of *Helicophagus typus*. ● = present study; ★ = type locality (also ZMA 120.525); ▲ = from Hardenberg (1948).

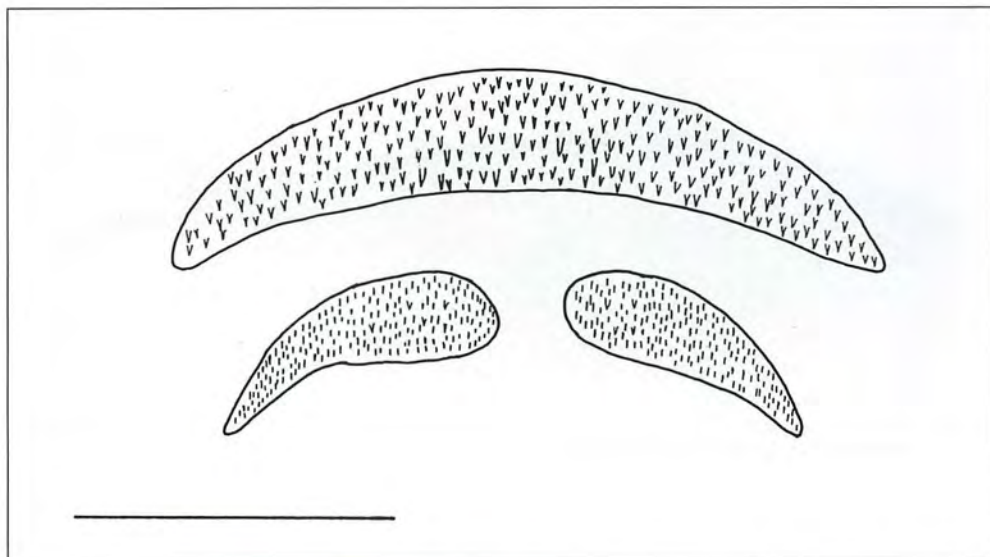


Figure 3. Premaxilla (above) and prevomer (below) dentition of *Helicophagus typus* (MZB 8641). Bar = 5.0 mm



Figure 4. Shells of bivalves, *Potamocorbula* sp. (5.7–8.0 mm in shell length), found in stomach of *Helicophagus typus* (MZB 8641). Bar = 10.0 mm. Close up of an individual (7.4 mm in shell length) (lower right corner).

**Note on food habits:** The stomach of the specimen was entirely filled with about 280 small clams (5.7–8.0 mm in shell length), identified as the bivalve *Potamocorbula* sp. (Corbulidae) (Fig. 4).

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