

Notes on a re-examination of some Bleeker type specimens of Indo-Malayan fresh-water fishes

Part 1, Cobitidae and Homalopteridae

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THE WHEREABOUTS of the Bleeker type specimens of fishes has been the subject of some confusion until Rofen (ms., in press) made it known that besides the British Museum (Natural History), London, a large proportion of the Bleeker collections is to be located in the Rijksmuseum van Natuurlijke Historie in Leiden. During the period February 1959 to March 1960, I was able to make a comparative examination of much of the Indo-Malayan Cyprinidae, Cobitidae and Homalopteridae in these two museums, as well as the collections in the Zoologisch Museum, Amsterdam. These notes have been prepared as a result of these studies.

In his *Catalogue of Fishes in the British Museum*, Gunther (1869) describes most of the Bleeker specimens as "typical" or as "type of the species". This appears to be founded mainly on the fact that Bleeker himself had originally offered them as types. A close comparison of these specimens against the original published descriptions has revealed that a few of them do not constitute type specimens. Where this has occurred I was usually able to locate the types in Leiden.

During his residence in Java, Bleeker was sometimes faced with an acute shortage of jars and other containers for his collections. On examining the collections in Leiden it was revealed that specimens from different localities were often placed in a single jar together with their respective types. It was possible only after a prolonged and critical examination to separate the types from some species. Among other criteria, the type specimens sometimes bore pencil marks and had been dissected to expose the branchiostegal rays. Separation was not feasible where large series had been intermixed.

The specimens are listed alphabetically below under the generic and specific names they were first described. I have in each case cited the original publication and this is followed on the next line, where necessary, by the current synonym or my own rediagnosis. Lectotypes and Paratypes are herein designated for the first time. They have been selected for all species regardless of my or any previous rediagnosis. In my notes on the specimens, the measurements and counts pertaining to the Lectotypes are given first. The figures in brackets refer to the Paratypes. The following abbreviations are used:—

BM . . . British Museum (Natural History), London.

ML . . . Rijksmuseum van Natuurlijke Historie, Leiden.

The species herein discussed are not represented by type specimens in the Zoologisch Museum, Amsterdam.

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Family COBITIDAE

***Botia barbatuloides* Bleeker**

Nat. Tijdschr. Ned. Indie, 1851, vol. 2, p. 435.

= *Cobitichthys barbatuloides* (Bleeker).

HOLOTYPE: ML 4960, Sambas, Borneo, J. Einthoven.

The specimen is almost beyond recognition. Bleeker originally described it as with, later (1858-59, p. 304) as without suborbital spines. I have found an indication of a orbital groove. Considering the present condition of the specimen, it is possible that spines may have been present.

***Botia choirorhynchos* Bleeker**

Nat. Tijdschr. Ned. Indie, 1854, vol. 7, p. 95.

= *Acantopsis choirorhynchos* (Bleeker).

LECTOTYPE: ML 4977, Confluence of River Lamatang and River Enim, Palembang Province, Sumatra, P. S. van Bloemen Waanders.

PARATYPES (2): ML 2397, same data.

Dorsal iii.11 (iii.10); anal iii.5 (iii.5); pectoral i.9 (i.9 for 1 specimen); ventral i.6 (i.6). The following measurements do not include one of the paratypes which has a elongated snout: total length 166 mm. (caudal broken in paratype); standard length 150 mm. (150 mm.); depth 8.5 (10.4); head 4.0 (3.9); eye 8.9 (9.4); snout 1.4 (1.3); suborbital 3.6 (3.9). The body markings are still clearly seen.

The earliest spelling of the generic name *Acantopsis* van Hasselt (1823) is used here in preference to *Acanthopsis* of subsequent authors.

***Botia hymenophysa* Bleeker**

Nat. Tijdschr. Ned. Indie, 1852, vol. 3, p. 602.

= *Botia hymenophysa* (Bleeker).

HOLOTYPE: ML 7059, Palembang, Sumatra, J. M. Van Leer.

Dorsal iv.12; anal vi.5; pectoral i.14; ventral i.7; total length 95 mm.; standard length 77 mm.; depth 4.3; head 3.4; eye 6.8; snout 1.8. The transverse markings on the body are quite distinct.

***Botia jaklesii* Bleeker**

Nat. Tijdschr. Ned. Indie, 1852, vol. 3, p. 604.

= *Nemacheilus jaklesii* (Bleeker).

LECTOTYPE: ML 7055, Pajacombo, Sumatra, P. Jakles.

PARATYPES: (2): ML 8949, same data.

Dorsal iv.9 (iv.9); anal iv.5 (iii.5); pectoral i.11 (i.10 & i.11); ventral i.7 (i.7); total length 78.8 mm. (caudal broken in paratypes); standard length 58.7 mm. (59.4 mm. & 58.1 mm.); depth 6.7 (6.1 & 7.1); head 4.9 (4.6); eye 4.7 (4.8 & 4.9); snout 2.6 (2.6). Lateral line complete. Origin of dorsal fin in front of ventrals. Ventrals not reaching anus. Holotype with a suborbital hook. Barbels all less than diameter of eye; maxillary pair the longest and equal to about 0.9 times eye diameter. The transverse body markings originally described by Bleeker are not visible. There is however a faint darkish spot along the lateral line terminating in a dark blotch at the caudal base.

The genus *Nemacheilus* Bleeker is in much need of revision. Weber & de Beaufort (1916, p. 40) have synonymised the present species with *N. fasciatus* (Valenciennes). I

have not examined the type or topotypical specimens of that species and for the present I follow Bleeker (1863, p. 7) in considering the two as distinct.

Cobitis macracanthus Bleeker

Nat. Tijdschr. Ned. Indie, 1852, vol. 3, p. 603.

= *Botia macracanthus* (Bleeker).

LECTOTYPE: ML 7058, River Kwanten, Sumatra, H. W. Schwanenfeld.

PARATYPE: ML 9111, Palembang, Sumatra, J. M. Van Leer.

Dorsal iv.8 (iv.8); anal iv.5 (iv.5); pectoral i.15 (i.14); ventral i.8 (i.9); total length 132.0 mm. (58.5 mm.); standard length 93.0 mm. (41.4 mm.); depth 3.0 (3.2); head 3.1 (3.1); eye 5.9 (4.5); snout 1.9 (2.2). The characteristic markings on the head and body are still clearly seen.

Cobitis macrorhynchos Bleeker

Act. Soc. Sci. Indo-Neerl., 1857, vol. 2, p. 20.

= *Acantopsis dialuzona* van Hasselt.

LECTOTYPE: BM 1866.5.2.40, River Kahajan, Borneo, C. Helfrich *or* Batavia, Java, P. Bleeker.

PARATYPES (5): ML 7057, River Kahajan, Borneo and Batavia, Java, C. Helfrich and P. Bleeker.

The specimens have been mixed and I have no way of separating them by locality.

Dorsal iii.10 (iii.9–iii.10); anal iii.5 (iii.5); pectoral i.9 (i.9); ventral i.6 (i.6); total length 78.3 mm. (66.5–110.0 mm.); standard length 64.6 mm. (56.3–92.4 mm.); depth 9.2 (9.3–10.1); head 3.8 (3.9–4.6); eye 6.7 (7.9–9.9); snout 1.7 (1.6–1.7); postorbital 3.3 (2.9–3.3). Colouration, more or less uniform brown.

I have compared the series with the holotype of *A. dialuzona* van Hasselt (ML 2707) and follow Bleeker (1863, p. 9) in considering the two species as identical. I do not however agree with Weber and de Beaufort in synonymising the species with *A. choirorhynchos* (Bleeker). Besides the difference in colouration the species has relatively fewer dorsal rays, iii.9–iii.10 as against iii.10–iii.11.

Cobitis pfeifferi Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 298.

= *Nemachilus pfeifferi* (Bleeker).

LECTOTYPE: ML 7053, Lake Meninju, Sumatra, Ida Pfeiffer.

PARATYPES (4): ML 463, same data.

Dorsal iv.8 (iv.8); anal iii.5 (iii.5); pectoral i.10 (i.11–i.12); ventral i.7 (i.7); total length 60.0 mm. (56.8–58.0 mm.); standard length 48.2 mm. (44.5–46.8 mm.); depth 6.7 (6.1–7.7); head 5.1 (4.7–5.1); eye 5.6 (6.0–6.8); snout 2.7 (2.6–3.0). Lateral line complete. Origin of dorsal opposite or slightly behind that of ventrals. Ventrals not reaching anus. No suborbital hook. Barbels all longer than eye; outer rostral pair the longest and equal to 4–5 times eye diameter. The transverse body markings originally described are not visible. There is a faint darkish stripe along the lateral line and a dark transverse band on the caudal base.

Bleeker (1863, p. 7) and Weber & de Beaufort (1916, p. 40) have synonymised the species with *N. fasciatus* (Valenciennes). Having not seen specimens of that species I am for the present maintaining them as separate species. It would also be noted that there

are distinct differences between the present species and *N. jaklesii* in the number of transverse bands (Bleeker, 1863, p. 7), the length of the barbels and the position of the dorsal fin in relation to the ventrals. There would be no justification in synonymising both species with *N. fasciatus*.

Family HOMALOPTERIDAE

Homaloptera gymnogaster Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 163.

HOLOTYPE: BM 1866.5.2.49, Lake Meninju, Sumatra, Ida Pfeiffer.

Dorsal iii.7; anal iii.5; pectoral v.10; ventral ii.7; total length 73 mm.; standard length 60 mm.; depth 7.5; head 5.5; eye 4.4; snout 1.8.

Length of head 1.3 times its width. Barbels subequal, slightly less than eye diameter. Dorsal origin behind ventrals. Pectorals not reaching ventrals. Ventrals not reaching anus. Origin of anal nearer caudal base than that of ventrals. Scales not keeled. Abdomen naked except for a triangular patch extending before ventrals. Predorsals 32. Lateral line (several scales fallen off, partly estimated from scale pockets) 66, Bleeker gives 70. Scales between dorsal and lateral line $5\frac{1}{2}$, between lateral line and ventrals $5\frac{1}{2}$.

The specimen is in poor condition and I have not been able to make satisfactory notes on the colouration.

Homaloptera ophiolepis Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 160.

LECTOTYPE: ML 4986, Bandung, Java, H. Zollinger.

PARATYPE: ML 1929, same data.

Dorsal iii.8 (iii.8); anal iii.5 (iii.5); pectoral iv.11 (iv.11); ventral ii.8 (ii.8); total length 98 mm. (82 mm.); standard length 80.2 mm. (70.2 mm.); depth 10.8 (11.6); head 5.4 (5.4); eye 8.2 (7.2); snout 1.9 (1.9).

Length of head 1.4 times its width. Barbels slightly longer than eye diameter, rostrals slightly shorter than maxillary pair. Dorsal origin before ventrals. Pectorals not reaching ventrals. Ventrals reaching well beyond anus. Origin of anal nearer caudal base than that of ventrals. Scales keeled, excepting those near abdomen. Abdomen naked up to an oval patch extending behind the base of the pectorals. Predorsals 14 (14). Lateral line 47 (50). Scales between dorsal and lateral line $7\frac{1}{2}$, between lateral line and ventrals $6\frac{1}{2}$.

The specimens are bleached and without any indication of the original colouration.

Homaloptera polylepis Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 162.

= *Homaloptera ocellata* van der Hoeven.

I have not been able to satisfactorily locate the 2 cotypes from Buitenzorg, Tjannas, Java. They are most probably included among the 13 specimens (ML 7049) which I have re-examined and compared with the holotype of *H. ocellata* van der Hoeven (ML 2723). The specimens all belong to the same species.

Homaloptera salusur Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 161.

LECTOTYPE: ML 5075, Batavia, Tjampea, Java, P. Bleeker.

PARATYPES (2): ML 8489, same data.

Dorsal iii.8 (iii.8); anal iii.5 (iii.5); pectoral vii.11 (vii.11); ventral ii.7 (ii.7); total length measurements are not possible because the caudal fins are broken (Bleeker gives 78–90 mm.); standard length 68.5 mm. (59.0 & 70.2 mm.); depth 6.7 (6.7 & 7.0); head 4.9 (4.6 & 5.0); eye 9.0 (7.6 & 7.8); snout 1.9 (1.8 & 1.9).

Length of head 1.5 times its width. Barbels shorter than eye, maxillary pair the longest. Dorsal origin beyond ventrals. Pectorals not reaching ventrals. Ventrals reaching well beyond anus. Origin of anal nearer base of ventrals than caudal base. Scales not keeled. Abdomen naked up to slightly before ventrals. Predorsals (estimated) 22 (24 & 25). Lateral line 62 (62). Scales between dorsal and lateral line 9 (8 & 10), between lateral line and ventrals 11 (9 & 10).

Colouration, more or less uniform brown.

Homaloptera wassinkii Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 163.

LECTOTYPE: ML 4987, Tjampea, Buitenzorg, Java, G. Wassink.

PARATYPES (2): ML 1934, same data.

Dorsal iii.7 (iii.7); anal iii.5 (iii.5); pectoral vi.10 (vi.11 & vi.12); ventral ii.7 (ii.7); total length 48.5 mm. (45.9 & 56.8 mm.); standard length 41.5 mm. (39.2 & 45.9 mm.); depth 7.2 (8.1 & 7.5); head 4.0 (4.4 & 4.2); eye 5.4 (6.8 & 5.7); snout 2.3 (2.1 & 2.2).

Length of head 1.3 times its width. Dorsal origin behind ventrals. Pectorals reaching ventrals. Ventrals not reaching anus. Origin of anal nearer caudal base than base of ventrals. Scales not keeled. Abdomen naked up to slightly behind base of ventrals. Lateral line 45 (42 & 45). Other scale counts not possible.

Colouration, more or less uniform brown.

Homaloptera zollingeri Bleeker

Nat. Tijdschr. Ned. Indie, 1853, vol. 4, p. 159.

The 3 cotypes collected by H. Zollinger from Batavia, Bandung, Java were lost (Bleeker, 1860, p. 89). In the absence of any topotypical material I have refrained from designating neotypes. The four specimens, BM 1866.5.2.53 (one) and ML 5075 (three) were collected by P. L. van Bloemen Waanders from Lahat, Sumatra.

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