FURTHER RECORDS OF AUCHENIPTERIDAE AND PIMELODIDAE FROM SURINAME (PISCES: NEMATOGNATHI)

by

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Key words: Pisces; Nematognathi; Auchenipteridae; Pimelodidae; Suriname.

Collections of freshwater-fishes, made in recent years in Suriname, have yielded four species of Auchenipteridae and ten species of Pimelodidae. Of the latter, two species, viz., \textit{Phractocephalus hemioliopterus} and \textit{Pimelodus heteropleurus}, are additions to the list given by Mees (1974: 237-238), but the occurrence of \textit{Phractocephalus hemioliopterus} in Suriname had already been mentioned by Geijskes (1973) and was thoroughly discussed by Boeseman (1983).


A previous paper on the Auchenipteridae and Pimelodidae of Suriname was based on collections made in the years 1963/1967, but mention was already made of further material, collected in 1971 (cf. Mees, 1974: 5).

In the present article, the specimens obtained in 1971 by Dr. M. Boeseman during the Geijskes-Boeseman expedition to north-western Suriname are discussed, as well as material received since 1970 from other sources. The numbers appearing in the lists of material after the localities, are the numbers these localities have on the map published in the expedition report (Geijskes, 1973: 39). A few specimens from the earlier collections which had been overlooked (usually because they had not been properly sorted out and had been bottled together with fishes belonging to other families), have also been included.

The main discoveries in north-western Suriname are \textit{Pseudopimelodus raninus villosus} (to which I could already make a passing reference in my earlier paper), \textit{Phractocephalus hemioliopterus} (cf. Boeseman, 1983), and \textit{Pimelodus heteropleurus}. In addition, a large series of \textit{Pimelodella macturki}

239
was obtained, a species which had been known in Suriname from a single specimen only, without date and locality.

Although this paper contains little that is new, I consider its publication justified as a small step towards an inventory of the freshwater fish-fauna of Suriname, and as a report on our collections and on progress with their identification. It does not pretend to be more than that.

Parauchenipterus galeatus (Linnaeus)


Parauchenipterus galeatus; Mees, 1974: 39.

Material. — Eight specimens, 28 December 1965, Marshall Kreek (Mees, RMNH no. 28715), standard length 58-91 mm. One specimen, 3 February 1971, forest creek, tributary of the Nickerie Rivier below Stondansie (3) (Boeseman, RMNH no. 28721), standard length 105 mm. Nine specimens, 8 March 1971, Bigi Birri Kreek, right tributary of the Maratakka (Boeseman, RMNH no. 28726), standard length 63-151 mm. Four specimens, same data (Boeseman, RMNH no. 28732), standard length 54-69 mm. 49 specimens, same data (Boeseman, RMNH no. 28727), standard length 38-78 mm. 54 specimens, same data (Boeseman, RMNH no. 28729), standard length 66-117 mm. 21 specimens, same data (Boeseman, RMNH no. 28730), standard length 63-176 mm. Three specimens, 1 April 1971, Winanna Kreek (24) (Boeseman, RMNH no. 28731), standard length 69, 71, 84 mm. Two specimens, 2 April 1971, right tributary of the Kaboeri Kreek below Fajastik Kreek (22) (Boeseman, RMNH no. 28728), standard length 118, 137 mm. One specimen, 7 April 1971, right tributary of the Kabalebo ca. 8 km below the Avanavero Vallen (Boeseman, RMNH no. 28724), standard length 143 mm.

Discussion. — This is the most widely distributed member of the family Auchenipteridae in Suriname. Recently I drew attention to the fact that four specimens from French Guiana had D 1.5 (Mees, 1983: 45). In 41 specimens of the samples listed above, I found 39 with D 1.6 and two with D 1.5. Additional material from French Guiana is now required.

The largest specimen I could record previously had a standard length of 173 mm, total length 204 mm (RMNH no. 25600); the largest specimen in the new material only just exceeds that size with a length of 176 (211) mm.
Tatia intermedia (Steindachner)

Centromochlus intermedius Steindachner, 1876: 664, footnote 1 – Marabitanos, Pará.
Tatia intermedia; Mees, 1974: 63.

Material. – One specimen (♂), 6 February 1971, creek downstream from Lombok Vallen, Nickerie Rivier (6) (Boeseman, RMNH no. 28654), standard length 51½ mm. One specimen (♂), 11 February 1971, right tributary of the Nickerie Rivier below Blanche Marie Vallen (8) (Boeseman, RMNH no. 28655), standard length 54 mm. Two specimens (♂ and ♀), 23 March 1971, Morali Kreek (21) (Boeseman, RMNH no. 28656), standard length 50, 81 mm. One specimen (♀), 6 April 1971, right tributary creek of the Kabalebo just below the Avanavero Vallen (29) (Boeseman, RMNH no. 28657), standard length 44 mm. Two specimens (♂ and ♀), 7 April 1971, right tributary creek of the Kabalebo ca. 8 km below the Avanavero Vallen (near 29) (Boeseman, RMNH no. 28658), standard length 45, 74 mm.

Discussion. – Even the largest specimen shows no trace of vomerine teeth.

Tatia creutzbergi (Boeseman)

Centromochlus creutzbergi Boeseman, 1953, 7, fig. 1c – Djaikreek.
Tatia creutzbergi; Mees, 1974: 77.

Material. – Five specimens (4 ♂, ♀), 30 January 1971, tributary creek of the Nickerie Rivier above camp Stondansie (2) (Boeseman, RMNH no. 28616), standard length 31 (♀), 32, 32, 32½, 33 (♂) mm. 30 specimens (♂, ♀), 1 February 1971, right tributary creek of the Nickerie Rivier below Stondansie (3) (Boeseman, RMNH no. 28617), standard length 26-34 mm. Eight specimens (3 ♂, 5 ♀), 2 February 1971, tributary of Fallawatra (4) (Boeseman, RMNH no. 28618), standard length 31-35 mm. 12 specimens (7 ♂, 5 ♀), 3 February 1971, forest creek, tributary of the Nickerie Rivier below Stondansie (3) (Boeseman, RMNH no. 28619), standard length 26-34 mm. 14 specimens (7 ♂, 7 ♀), 16 February 1971, left tributary of the Nickerie Rivier below the Blanche Marie Vallen (8) (Boeseman, RMNH no. 28620), standard length 30-37 mm. One specimen (♀), 6 March 1971, tributary of the middle Maratakka (13) (Boeseman, RMNH no. 28621), standard length 35 mm. Two specimens (both ♂), 1 April 1971, Winanna Kreek (24) (Boeseman, RMNH no. 28622), standard length 30, 30 mm. Two specimens (sex uncertain), 9 April 1971, right tributary of the Kabalebo ca. 8 km below the Avanavero Vallen (near 29) (Boeseman, RMNH no. 28623), standard length 14½, 21 mm.

Discussion. – Some of this material was already mentioned, but not discussed, in my previous publication (Mees, 1974: 5, 79). These 74 specimens confirm T. creutzbergi as a common species of the northern lowlands of Suriname. Combined with the specimens studied previously, I have now examined 131 specimens, the largest of which measured only 37 mm in standard length (48 mm in total length); this specimen, incidentally, is a gravid female, full of ripe eggs (from sample no. 28620). It proves that in 1971 reproduction took place at the time of its capture.
**Tatia brunnea** Mees

*Tatia brunnea* Mees, 1974: 84, fig. 21. – Compagnie Kreek, Suriname.

Material – Three specimens, 6 August 1975, upper course of the Loëkreek, a western tributary of the Litani (M. S. Hoogmoed, RMNH no. 27530), standard length 26.5, 27, 28 mm.

**Phractocephalus hemioliopterus** (Bloch & Schneider)

*[Silurus]* Hemioliopterus Bloch & Schneider, 1801: 385 – Habitat cum antecedente = in fluminae Maranham Brasiliae.

Material. – One specimen, 11 April 1971, Kabalebo below the Avanavero Vallen (Boeseman, RMNH no. 28686), standard length 745 mm.

Discussion. – See Boeseman (1983). A short reference to the specimen listed above, was made by Geijskes (1973: 33, s. n. *Phractocephalus bicolor*).

**Pimelodus blochii** Valenciennes


*Pimelodus blochii*; Mees, 1974: 134.

Material. – One specimen, 1 June 1966, Marowijne near Galibi (W. Vervoort, RMNH no. 29294), standard length 36 mm.

Discussion. – It is of interest to note that even in this small specimen the eye is fairly small, its longitudinal diameter measuring 1.2 times in the bony interorbital (cf. Mees, 1974: 131, 135).

**Pimelodus heteropleurus** Eigenmann

*Pimelodus heteropleurus* Eigenmann, 1912: 176, pl. XVI fig. 2 – Rupununi Pan, British Guiana.

*Pimelodus heteropleurus*; Henn, 1928: 78 (Rupununi Pan); Gosline, 1945: 41 (Guiana Inglesa); Mees, 1974: 139 (Rupununi Pan).

Material. – Three specimens, 21 September 1980, Baruba Kreek (Mees, RMNH no. 28709), standard length 34, 35½, 36 mm.

Also examined the following specimens from Guyana (British Guiana): Six specimens, 16 September 1957, Morebay Pool, Rupununi (R. H. McConnell, coll. no. 133), standard length 26-32.5 mm. Ten specimens, 24 September 1957, Karanambo Creek, Rupununi (R. H. McConnell, coll. no. 155), standard length 23-37 mm. Seven specimens, 25 September 1957, Karanambo Creek, Rupununi (R. H. McConnell, coll. no. 157), standard length 25-37 mm.
Characters. — D 1.6, A 11-12 (iii.8, iii.9), P I.7 (in one specimen P I.8 on one side), V 6 (i.5), C i.15.i and rudiments (7 + 8 divided rays), branchiostegals 6-7, gill-rakers 6-7 (1 + 1 + 4 or 5). Head 3.7-3.8, predorsal length 2.55-2.8, depth of body 4.0-4.8, greatest width of body 5.0, base of adipose fin 3.7-4.2 times in standard length; eye 1.4-1.5 times in snout, 0.9-1.0 times in bony interorbital, 3.9-4.0 times in head. Maxillary barbels long and thin, reaching to beyond anal origin; outer pair of mental barbels reaching to pectoral base; inner pair of mental barbels about three-fifths of the length of the outer pair. Dorsal and pectoral spines strong; the dorsal spine smooth, the pectoral spine with along its anterior edge numerous very small teeth, along its posterior edge 6 or 7 large teeth. Teeth very small and poorly developed, in bands in each jaw. Size small. No pectoral pore. Caudal fin deeply forked.

 pigmentation is in most places light. The occiput is black; there are dark subocular and opercular patches; there are three short dark streaks from behind the opercle and the side of the occiput backwards to below the dorsal origin, where they end abruptly; the dorsal spine and the first dorsal ray are pigmented blackish, and there are patches of pigment on each side of the dorsal base, and medially in front of the adipose origin.

This tiny species differs conspicuously from the larger members of the genus *Pimelodus* occurring in Suriname, in that the occipital process does not taper towards the dorsal base but is of almost equal width over its whole length; in this character it agrees with *Pimelodella* from which genus it differs, however, in having the fontanel reaching backwards only to level with the posterior border of the eyes, whereas *Pimelodella* has the fontanel continued as a narrow slit right to the base of the occipital process.

Discussion. — Hitherto, *P. heteropleurus* had been known only from its holotype, so that this additional material, besides extending its range into Suriname, is of particular value.

I am indebted to Dr. McConnell for sending me material of Pimelodidae from her Rupununi collections, which yielded the three samples of *P. heteropleurus* listed above.

The type-specimen of *P. heteropleurus* was not collected by Eigenmann personally, but by William Grant, an Indian in the service of Eigenmann as a guide and interpreter, who after Eigenmann's departure from British Guiana continued to forward fishes from many inland localities (cf. Eigenmann, 1912: 3). Having failed to trace the type-locality, Rupununi Pan, on any map, I asked Dr. McConnell, and she informed me as follows (in litt., 25.V.1981): ,,The Rupununi is full of ponds in the floodplain, which could well be called „pans“'. So „Rupununi Pan“ could be from a wide area, and could drain either to the Rupununi River, thence to the Essequibo, or could be in the Rupununi district
draining to the Rio Branco and thence to the Rio Negro”.

On a previous occasion I already noted that Eigenmann’s (1912: 176) positive statement that *P. heteropleurus* is a form of *P. ,,clarias” (= *P. blochii*) could not be correct. An examination of the fresh material has strengthened me in this view. Besides the small size, the entirely different shape of the postoccipital process and the low number of gill-rakers place it apart from the other Guianan species of *Pimelodus*. I would even go a step further and say that *P. heteropleurus* does not really fit into the genus *Pimelodus*, but as, apart from creating a separate genus for it which I consider premature, I have no suggestion to make as to where it could be better placed, it seems for the moment best to keep it in the genus to which its author assigned it.

**Pimelodella cristata** (Müller & Troschel)

*Pimelodella cristata* Müller & Troschel, 1848: 638 – Takutu und Mahu.  
*Pimelodella cristata*; Mees, 1974: 144.

**Material.** — One specimen, November 1910, Lucie Rivier (K. M. Hulk, Corantijn Exp., RMNH no. 28733), standard length 40 mm. One specimen, 7 February 1964, Suriname Rivier near Brokopondo (Boeseman, RMNH no. 28734), standard length 106 mm. One specimen, 17/18 February 1964, creek between Kabel and Lombé (Boeseman, RMNH no. 28735), standard length 58 mm. One specimen, 29 May 1964, Suriname Rivier near Brokopondo (Boeseman, RMNH no. 28778), standard length 83½ mm. One specimen, 28 December 1965, Marshall Kreek (Mees, RMNH no. 28779), standard length 54 mm. Three specimens, 30 January 1971, left tributary creek of the Nickerie Rivier above camp Stondsie (2) (Boeseman, RMNH no. 29263), standard length 102, 123, 125 mm. One specimen, 2 February 1971, right tributary of Fallawatra (4) (Boeseman, RMNH no. 29264), standard length 138 mm. 15 specimens, 11 February 1971, right tributary of the Nickerie Rivier below the Blanche Marie Vallen (8) (Boeseman, RMNH no. 29265), standard length 78-132 mm. One specimen, 6 April 1971, right tributary of the Kabalebo just below the Avanalvero Vallen (29) (Boeseman, RMNH no. 29266), standard length 74 mm. One specimen, 7 April 1971, right tributary of the Kabalebo, ca. 8 km below the Avanalvero Vallen (Boeseman, RMNH no. 29267), standard length 93 mm. Two specimens, same data (Boeseman, RMNH no. 29268), standard length 215, 228 mm. Two specimens, 10 April 1971, right tributary of the Kabalebo just below the Avanalvero Vallen (29) (Boeseman, RMNH no. 29269), standard length 128, 184 mm. 23 specimens, 21 September 1980, Baruba Kreek (Mees, RMNH no. 29270), standard length 30.5-91 mm.

**Discussion.** — One of the specimens of sample no. 29263 has A 16 (vi.10), which is an exceptionally high count, even though several of the unbranched rays are rudimentary. Previously I gave P 1.9 or I.10 for this species, but several of the specimens listed here have P I.8, which evidently is also within the normal range of variation and may even be more common that P I.10.  
Sample no. 29270 shows that in small specimens, of up to between 40 and 50 mm in standard length, the postoccipital process is not yet fully developed and
does not reach the predorsal plate. This is particularly worth recording, as the shape of the postoccipital process and the fact that if forms a complete bridge between the occiput and the predorsal plate, has always been regarded as a major, if not the main, generic character of *Pimelodella*. It appears now that this character cannot be used in specimens of less than 40-50 mm standard length. This is the reason why Hulk’s specimen (no. 28733), which shows the juvenile condition, had remained unidentified, although it was collected almost 75 years ago.

**Pimelodella macturki** Eigenmann

*Pimelodella macturki* Eigenmann, 1912: 170, pl. XVI fig. 1 — Creek in Mora Passage, British Guiana.

*Pimelodella macturki*; Mees, 1974: 150.

Material. — 41 specimens, 8 March 1971, Bigi Birri Kreek, right tributary of the Maratacca (Boeseman, RMNH no. 29305), standard length 37½-57 mm. 144 specimens, 23 March 1971, Morali Kreek, right tributary of the lower Kaboeri Kreek (21) (Boeseman, RMNH no. 29306), standard length 25-83 mm. 11 specimens, 6 April 1971, right tributary creek of the Kabalebo just below the Avanaver Vallen (29) (Boeseman, RMNH no. 29307), standard length 45-56.5 mm. Six specimens, 10 April 1971, right tributary creek of the Kabalebo just below the Avanaver Vallen (29) (Boeseman, RMNH no. 29308), standard length 49-71 mm.

Characters. — D I.6, A 11-13 (iv-7-iv.9), P I.7 or I.8, V 6 (i.5), C 15 (once 14) branched rays, branchiostegals 6-8, gill-rakers 12-14 (2-3 + 1 + 8-10). Head 3.9-4.5, predorsal length 2.8-3.0, greatest width of body 5.0-5.7, base of adipose fin 3.4-4.4 (usually 3.8-4.0) times in standard length.

Discussion. — Females in the size range 50-83 mm were gravid and full of eggs, proving that reproduction was about to take place in March and April; they also prove that this is a small species which would not grow much beyond the maximum standard length of 83 mm of the material here recorded. Compare this with *Pimelodella cristata*, in which sexual maturity is attained at a standard length of ca. 130 mm (cf. Mees, 1974: 147).
Fig. 1. *Pimelodella maculata* (from sample RMNH no. 2936, standard length 71 mm). Drawing by Mrs. I. de Boer-van Noortwijk.
MEES: AUCHENIPTERIDAE AND PIMELODIDAE FROM SURINAME 247

Rhamdia quelen (Quoy & Gaimard)

Pimelodus quelen Quoy & Gaimard, 1824 228, pl. 49 fig. 3, 4 – Montevideo (reference not verified).

Rhamdia quelen; Mees, 1974: 153.

Material. – 12 specimens, 1 February 1971, tributary of the Nickerie Rivier below Stondansie (3) (Boeseman, RMNH no. 28639), standard length 111-167 mm. One specimen, 2 February 1971, tributary of Fallawatra (4) (Boeseman, RMNH no. 28640), standard length 116 mm. Four specimens, 3 February 1971, forest creek, tributary of the Nickerie Rivier below Stondansie (3) (Boeseman, RMNH no. 28641), standard length 140, 150, 152, 160 mm. Three specimens, 16 February 1971, left tributary of the Nickerie Rivier below the Blanche Marie Vallen (8) (Boeseman, RMNH no. 28642), standard length 115, 122, 140 mm. One specimen, 27 February 1971, savanna-creek bordered by forest, Maratakka (12) (Boeseman, RMNH no. 28643), standard length 113 mm. One specimen, 7 March 1971, pool near Cupido, Maratakka basin (11) (Boeseman, RMNH no. 28644), standard length 185 mm. 24 specimens, 8 March 1971, Bigi Birri Kreek, right tributary of the Maratakka (Boeseman, RMNH no. 28645), standard length 71-199 mm. 75 specimens, 23 March 1971, Morali Kreek, right tributary of the lower Kaboeri Kreek (21) (Boeseman, RMNH nos. 28646/28647), standard length 64-235 mm. Two specimens, 1 April 1971, Winanna Kreek (24) (Boeseman, RMNH no. 28648), standard length 122, 141 mm. One specimen, 2 April 1971, right tributary of the Kaboeri Kreek below Fajastik Kreek (22) (Boeseman, RMNH no. 28649), standard length 127 mm. 12 specimens, 7 April 1971, right tributary of the Kabalebo ca. 8 km below the Avanavero Vallen (Boeseman, RMNH no. 28650), standard length 92-228 mm. One specimen, 20 March 1972, forest creek near the Raleigh Vallen, Coppenname Rivier (Mees, RMNH no. 28651), standard length 151 mm. 17 specimens, 5 September 1980, tributary of the Kabalebo near the Devis Vallen (Mees, RMNH no. 28652), standard length 54-148 mm.

Discussion. – This material confirms Rhamdia quelen as one of the commonest catfishes of Suriname. The largest specimen (standard length 235 mm, total length 292 mm) exceeds in size the largest wild-caught specimen from Suriname I was able to record previously (standard length 212 mm, total length 255 mm), but a specimen kept in an aquarium is known to have attained a standard length of 348 mm (cf. Mees, 1974: 159).

Imparfinis minutus (Lütken)

Rhamdia minuta Lütken, 1874: 35 – no locality = Rio das Velhas.

Imparfinis minutus; Mees, 1974: 170.

Material. – Two specimens, 15 February 1971, tributary of the Nickerie Rivier below the Blanche Marie Vallen (Boeseman, RMNH no. 28624), standard length 70, 73 mm.
Heptapterus longior (Eigenmann)


Material. — One specimen, 21 July 1964, tributary creek of the Gran Kreek about 12 km from its mouth (Boeseman, RMNH no. 28627), standard length 20 mm. Two specimens, 20 January 1970, Sipaliwini (M. S. Hoogmoed & J. J. Paats, RMNH no. 28628), standard length 65, 73 mm. Ten specimens, 13 February 1971, rock pool above Blanche Marie Vallen, Nickerie Rivier (Boeseman, RMNH no. 28629), standard length 47.5-76 mm. Two specimens, 15 February 1971, in and around falls in a right tributary of the Nickerie Rivier below the Blanche Marie Vallen (Boeseman, RMNH no. 28630), standard length 85, 96 mm. Eight specimens, 16 February 1971, left tributary of the Nickerie Rivier below the Blanche Marie Vallen (8) (Boeseman, RMNH no. 28631), standard length 39-72 mm. Two specimens, 20 March 1972, forest creek near the Raleigh Vallen, Coppename Rivier (Mees, RMNH no. 28632), standard length 64, 72.5 mm.

Discussion. — Of the two specimens of sample no. 28632 the smaller specimen has A 12 (iii.9), the larger one has the unusually high count of A 13 (iv.9).

Pseudopimelodus raninus villosus Eigenmann

*Pseudopimelodus villosus* Eigenmann, 1912: 152, fig. 32; pl. X fig. 1 — Potaro Landing, British Guiana. *Pseudopimelodus raninus villosus*; Mees, 1974: 211.

Material. — Four specimens, 1 April 1971, Winanna Kreek (24) (Boeseman, RMNH no. 29271), standard length 57, 62.5, 79, 93 mm. One specimen, 6 April 1971, right tributary of the Kabalebo just below the Avanavero Vallen (29) (Boeseman, RMNH no. 29272), standard length 66 mm. One specimen, 7 April 1971, right tributary of the Kabalebo, ca. 8 km below the Avanavero Vallen (Boeseman, RMNH no. 29273), standard length 59 mm. One specimen, same data (Boeseman, RMNH no. 29274), standard length 131 mm.

Characters. — These specimens are typical *villosus*, with the fins mainly mottled grey on a white background; there is a fairly distinct pale band across the nape. The two largest specimens have A 12 (iv.8 and iii.9), the others A 11 (iii.8).

Discussion. — A short reference to the occurrence of this subspecies in western Suriname was already made in my previous paper (Mees, 1974: 5, 212). Two of these specimens exceed in size the maximum (82 mm standard length) found amongst 69 specimens of *P. r. raninus* from Suriname and French Guiana (cf. Mees, 1974: 207 and 1983: 55).
Microglanis poecilus Eigenmann

Microglanis poecilus Eigenmann, 1912: 155, pl. XII fig. 2 – below Packeoo Falls, British Guiana.
Microglanis poecilus; Mees, 1974: 228

Material. – One specimen, 23 March 1971, Morali Kreek, right tributary of the lower Kaboeri Kreek (21) (Boeseman, RMNH no. 28635), standard length 17 mm. Five specimens, 9 April 1971, right tributary of the Kabalebo ca. 8 km below the Avanavero Vallen (Boeseman, RMNH no. 28636), standard length 22, 22.5, 24.5, 25, 31 mm. Seven specimens, 21 September 1980, Baruba Kreek (Mees, RMNH no. 28637), standard length 16-26.5 mm.

REFERENCES

Eigenmann, C. H., 1912. The freshwater fishes of British Guiana, including a study of the ecological grouping of species and the relation of the fauna of the plateau to that of the lowlands. – Mem. Carnegie Mus. 5: i-xvii, 1-578, pl. 1-CHL.