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NAKED CATFISHES FROM FRENCH GUIANA (PISCES, NEMATOGNATHI)

by

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With four text-figures

In April 1980, Mr. P. Planquette of the Laboratoire d'Hydrobiologie, Petit-Bourg, Guadeloupe, presented me with a collection of naked catfishes from French Guiana, which he had brought together in the course of an ichthyological survey of that country, carried out between September 1978 and March 1980. The survey continues and in September 1981 a few additional specimens were received from Mr. R. Rojas-Beltrán, who is collaborating with Mr. Planquette in the project. The material consists of 19 species belonging to six families: Auchenipteridae (six species), Aspredinidae (one species), Pimelodidae (nine species), Helogeneidae (one species), Trichomycteridae (one species) and Cetopsidae (one species).

The Aspredinidae are represented by a single specimen belonging to the genus *Bunocephalichthys* (RMNH no. 28577). As, in spite of useful short reviews by Myers (1942, 1960) and Fernández-Yépez (1953), the systematics and nomenclature of the Bunocephaline catfishes are greatly confused, a discussion of this specimen is reserved for inclusion in a paper on the fishes of this group, on which I have been working for some time. The one specimen of *Trichomycterus* (RMNH no. 28605) and the two specimens of Cetopsidae (RMNH nos. 28606, 28607) have not yet been identified and will not be further dealt with here, except to say that the former belongs to a species that is common and widely distributed in Suriname. Of the other species, several are new to French Guiana, but their occurrence is not unexpected as they were already known from adjacent Suriname, apart from one which appears to be undescribed.

All the collecting-localities are shown on the accompanying map (fig. 1). To facilitate comparison with my publication on certain Nematognathi from Suriname (Mees, 1974), it should to be pointed out that the Dutch name for the great border river of Suriname and French Guiana is Marowijne, whereas the

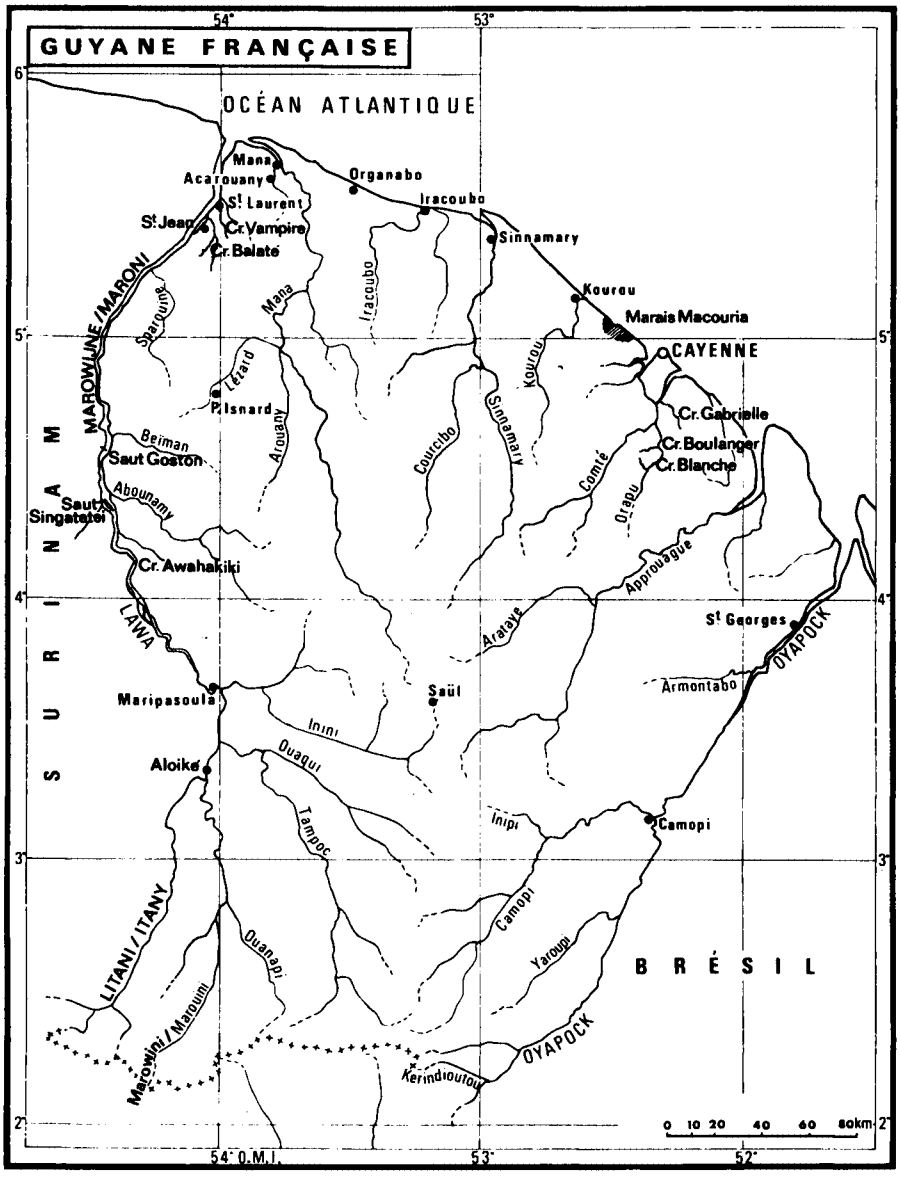

Fig. 1. Map of French Guiana, showing localities referred to in the text.

French name is Maroni. To avoid confusion over this important river, referred to numerous times in the text, I have each time indicated it by both names: Marowijne/Maroni. Other rivers in the border region have only a difference in spelling: Litani (Dutch) = Itany (French), Marowini (Dutch) = Marouini (French).

The figures illustrating this article have been drawn by Miss Inge van Noortwijk.

AUCHENIPTERIDAE

Auchenipterus nuchalis (Spix)

Hypophthalmus nuchalis Spix, 1829, Gen. Sp. Pisc. Bras.: 17, pl. XVII — Brasilia aequatoriali.

Material. — One specimen (♀), 6 June 1981, Sinnamary, 10 km upstream from mouth (R. Rojas-Beltrán, RMNH no. 28710), standard length ca. 104 mm.

Characters. — D I.6, A 38 or more, P I.12, V 13. This specimen has been preserved in very strong spirits; it is hard and strongly bent, which makes measuring of standard length and counting of dorsal fin rays difficult. The colours are very well preserved: dorsally, including the dorsal surface of the head, the specimen is black; there is a broad black lateral band, following the lateral line from behind the opercle to the base of the caudal fin, and a weakly indicated band from the postcleithral process backwards, petering out above and a little beyond the anal origin. The remainder of the body is unpigmented, yellowish-white in preservative.

Pseudauchenipterus nodosus (Bloch)

Silurus nodosus Bloch, 1794, Naturgesch. Ausl. Fische, 8: 35, pl. 368 fig. 1 — Tranquebar (errore!) = South America.

Material. — One specimen (♀), June 1979, St. Laurent du Maroni (RMNH no. 28711), standard length 179 mm.

Characters. — D I.6, A 21 (iii.18), P I.7, V 8 (i.7), C i.15.i and rudiments. These figures are perfectly normal for the species.

Parauchenipterus galeatus (Linnaeus)

Silurus galeatus Linnaeus, 1766, Syst. Nat. (ed. 12), 1: 503 — in America australi, restricted to Suriname (Mees, 1974: 39).

Material. — One specimen, 5 October 1978, Crique Gabrielle (RMNH no. 28566), standard length 123 mm. Two specimens, October 1980, Marais Macouria along Route Nationale 1 (R. Rojas-Beltrán, RMNH no. 28712), standard length 92, 117 mm.

Characters. — Counts of specimen no. 28566 are: D I.5, A 25, P I.7, V 6 (i.5), C 16 (divided rays only); both specimens of no. 28712 have: D I.5, A 24, P I.7, V 6 (i.5) and C 17 (divided rays only).

Discussion. — In Suriname I found in all specimens examined six rays in the dorsal fin, hence D I.6; therefore it deserves mention that all three specimens from Cayenne have D I.5. Consulting my notes I found that in the type-specimen of *Trachycorystes jokeannae* from Ile de Cayenne, which I have synonymized with *P. galeatus* (cf. Mees, 1974: 43), I also counted D I.5

(Hoedeman, 1961: 133, table I, recorded it as having D I.4). In the absence of any other difference I am not inclined to pay much attention to this, especially as the sixth ray is often small. The number of divided rays in the caudal fin (C 16-17) is also higher than I indicated in my previous paper, but further examination of specimens from Suriname showed that there also the number of branched rays is frequently 16-17.

Tatia cf. **intermedia** (Steindachner)

Centromochlus intermedius Steindachner, 1876, Sitzb. Akad. Wiss. Wien, Mathem.-Naturw. Cl., 74 (1): 664, footnote 1 — Maribitanos, Pará.

Material. — One specimen, 3 October 1979, Crique Blanche (RMNH no. 28567), standard length 29 mm. Two specimens, 3 March 1980, below Acarouany (RMNH no. 28568), standard length 42½, 45 mm.

Discussion. — These specimens have an aberrant colour pattern in that they show comparatively narrow longitudinal white streaks on the body rather than roundish or oval spots. A specimen from the Carsevenne/Calçoene basin, Amapá, showed a similar pattern (cf. Mees, 1974: 68). More material is necessary before it can be decided whether this is a matter of minor geographical variation, or one of individual variation.

Tatia brunnea Mees

Tatia brunnea Mees, 1974, Zool. Verh., 132: 84, fig. 21 — Compagnie Kreek, Suriname.

Material. — Two specimens, 9 October 1979, Crique Balaté (RMNH no. 28569), standard length 36, 41½ mm. Three specimens, 13 October 1979, Crique Awahakiki (RMNH no. 28570), standard length 31½, 45, 50 mm. Four specimens, 22 January 1980, Crique Balaté (RMNH no. 28571), standard length 24, 31, 37, 37 mm. One specimen, 4 March 1980, Crique Balaté (RMNH no. 28572), standard length 42½ mm.

Distribution. — This species was already known from the Suriname and Marowijne/Maroni basins, in Suriname and French Guiana, so that the present material does not extend its range.

Glanidium leopardus (Hoedeman)

Centromochlus (*Gephyromochlus*) *leopardus* Hoedeman, 1961, Bull. Aquatic Biol., 2: 135 — French Guiana: mainland, Litany River, village Aloiké.

Material. — Two specimens, 9 October 1979, Crique Balaté (RMNH no. 28573), standard length 56, 70 mm. Two specimens, 22 January 1980, Crique Balaté (RMNH no. 28574), standard length 84, 94 mm. One specimen, 3 March 1980, below Acarouany (RMNH no. 28585), standard length 48 mm. Four specimens, 4 March 1980, Crique Balaté (RMNH no. 28576), standard length 39, 45, 74, 83 mm.

Distribution. — *G. leopardus* was previously only known from the upper part of the Marowijne/Maroni basin, north to near the confluence of Tapanahoni and

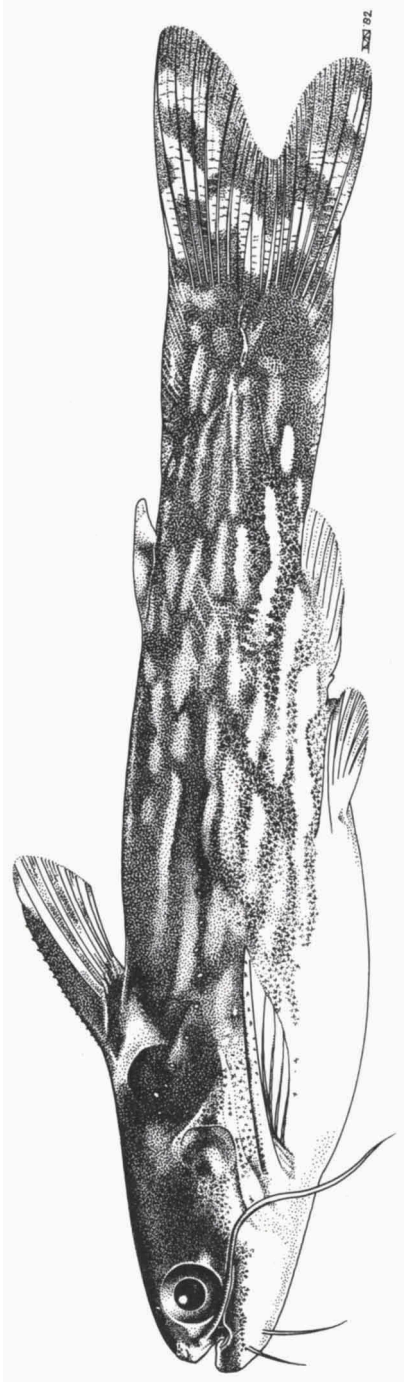

Fig. 2. *Tatia* cf. *intermedia* (RMNH from no. 28568, s. l. 45 mm).

Lawa. The present material shows that it occurs much farther north in the coastal region, and that its range extends into the Mana basin. Further collecting is required to establish whether in French Guiana it is more widely distributed, or is endemic to the Marowijne/Maroni and Mana basins.

Pimelodidae

Although this family-name, based on the genus *Pimelodus*, is usually written Pimelodidae, the form Pimelodontidae appears from time to time in the literature. La Cepède (1803: 93), the author of *Pimelodus* (he also used the French version: le pimélode and les pimélodes) did not explicitly state what the name was derived from, but the word means fat or fatty, and in the diagnosis La Cepède writes: "le corps gras". There does not appear to be any philological or other ground for using a spelling other than Pimelodidae for the family.

Pimelodus ornatus Kner

Pimel[odus] ornatus Kner, 1858, Sitzb. Akad. Wiss. Wien, Mathem.-Naturw. Cl., 26 (1857): 411, pl. VI fig. 18 — von Surinam, dem Rio Negro und Cubaja.

Material. — One specimen, 15 October 1979, Saut Singatetei (RMNH no. 28578), standard length 135 mm.

Pimelodus blochii Valenciennes

Pimelodus Blochii Valenciennes, 1840, in Cuvier & Valenciennes, Hist. Nat. Poiss., (4° ed.) 15: 139 — Cayenne, Surinam, Colombie = Suriname.

Material. — One specimen, 25 September 1978, St. Laurent du Maroni (RMNH no. 28579), standard length 86 mm.

Discussion. — Counts of this specimen are: D I.6, A $12^1/_2$ (iii.$9^1/_2$), P I.8, V 6 (i.5), C i.15.i and rudiments, branchiostegals 8, gill-rakers 25 (6 + 1 + 18). Note the low number of pectoral rays.

Pimelodella cristata (Müller & Troschel)

P[imelodus] cristatus Müller & Troschel, 1848, in Schomburgk, Reisen in Britisch-Guiana, 3: 628 — Takutu und Mahu.

Material. — Two specimens, 3 October 1979, Crique Blanche (RMNH no. 28580), standard length 55, 57 mm. 23 specimens, 9 October 1979, Crique Balaté (RMNH no. 28581), standard length 20-129 and one of 230 mm. Two specimens, 12 October 1979, Saut Goston (RMNH no. 28582), standard length 69, 142 mm. Two specimens, 13 October 1979, Crique Awahakiki (RMNH no. 28583), standard length 99, 147 mm. Six specimens, 4 March 1980, Crique Balaté (RMNH no. 28584), standard length 70, 79, 82, 88, 89, 96 mm.

Discussion. — There is a considerable amount of individual variation in this material. Two specimens of lot no. 28581 are conspicuous by having exceptionally long caudal fins, their standard lengths being 110 and 129 mm, their total lengths 166 and 191 mm. The larger specimen of no. 28583 has the caudal

fin with 7 + 9 branched rays instead of the usual 7 + 8. In 13 specimens from French Guiana and Suriname that were X-rayed, I found much variation in numbers of vertebrae: 38 (one), 40-42, 45 (four). There is also variation in development of the black lateral band. These differences will justify further study, although at present I have no reason to suspect that more than one species is involved.

I do not understand Puyo's (1949: 89) colour description of this species, which begins with the words: "Le corps est marron foncé", as the numerous specimens I have seen, alive and freshly dead, have always been pale in colour.

Pimelodella procera species nova

Material. — Nine specimens, 9 October 1979, Crique Balaté (RMNH no. 28585), standard length 54-94 mm. Two specimens, 22 January 1980, Crique Balaté (RMNH no. 28586), standard length 91, 95 mm. One specimen, 4 March 1980, Crique Balaté (RMNH no. 28587), standard length 81 mm. One specimen, same data (RMNH no. 28588), standard length 100 mm, holotype of the species.

Diagnostic characters. — A very slender species, characterized by a comparatively short adipose fin (3.7-4.0 in standard length), a pale body with a conspicuous black lateral stripe and a black tip to the dorsal fin. For an enumeration of the differential characters between this species and the three other members of the genus *Pimelodella* known from the Guianas, I refer to the Discussion.

Description. — D I.6, A 10-12 (iii-iv.7-9), P I.8 or I.9, V 6 (i.5), C i.15.i and rudiments (i.7 + 8.i), branchiostegals 6 or 7, gill-rakers 8-11 (1 or 2 + 1 + 5-8), vertebrae 37 or 38. Head 3.9-4.6, predorsal length 2.95-3.0, depth of body 6.5-7.4, greatest width of body 6.0-6.5, base of adipose fin 3.7-4.0 times in standard length; depth of caudal peduncle 3.6-4.5 times in head; eyes of moderate size, 1.6-1.8 times in snout, 0.6-0.75 times in bony interorbital, 3.7-4.1 times in head; maxillary barbels reaching to between middle and end of adipose base; outer pair of mental barbels reaching to or beyond pectoral origin but never as far as to the tip of the adpressed pectoral spine; inner pair of mental barbels 0.5-0.6 of the length of the outer pair.

Dorsal fin with one spine and six divided rays; the spine not very strong, thin, smooth or distally on the anterior surface with a few (2-7) serrae, its length 1.8-2.3 times in the predorsal length; the first soft ray is longest, some 10% longer than the spine which precedes it; second ray about equal in length to the spine; succeeding rays regularly diminishing in length to the last one which is about three-fifths of the length of the first and longest one; in outline the dorsal fin is triangular, the tips of the soft rays forming almost a straight line. Anal fin with ten to twelve rays, of which the anterior three or four are simple, the others divided; its outline is convex, with the rays of its middle part longest, a little longer than the snout. Pectoral fins with one spine and eight or nine divided rays; the pectoral spines are stronger than the dorsal spine, in small specimens of the same length, in large specimens a little longer than the dorsal spine, 1.8-2.0

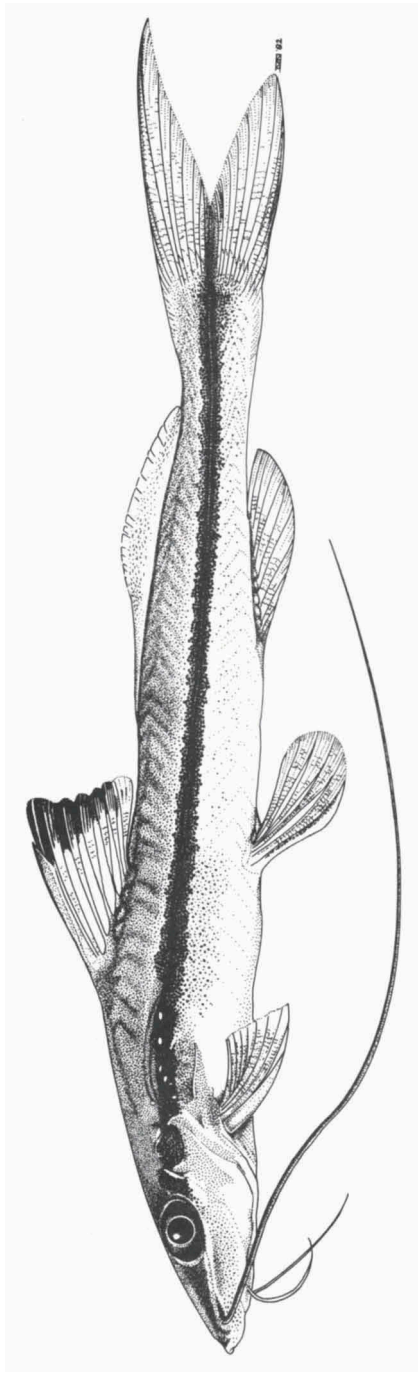

Fig. 3. *Pimelodella procera* (RMNH no. 28587, s. l. 81 mm).

in predorsal length, their anterior edge sometimes distally with some serrae, basally with a larger number of much smaller teeth, placed close together, their posterior edge with on the basal two-thirds from 8-11 teeth; the tip of the spine carries a short filament; the first ray is a trifle shorter than the spine with filament, longer than the spine alone; the following rays are successively shorter and the last one is about half the length of the spine. Ventrals with one simple and five divided rays, evenly rounded in outline, with the 3rd and 4th rays longest, about equal to snout plus half an eye's diameter. Caudal fin long, deeply forked, with seven branched rays in the upper lobe, eight in the lower lobe; upper lobe longer than lower lobe, its longest ray 80-95% of predorsal length.

Colours in a preserved condition: above the lateral band light yellowish brown, below it yellowish white, almost without pigment; a broad black band from snout to eye and from eye along the flanks right up to the middle caudal rays; fins hyaline, the dorsal fin conspicuously black-tipped, and the central caudal rays black as just described; upper surface of the head, especially above the brain-case, more heavily pigmented than the body.

In all its characters this species remains well within the accepted generic limits of *Pimelodella*. With *P. cristata*, the type-species of the genus, it agrees in general appearance, including the slightly inferior position of the mouth, dentition, position and shape of the two pairs of nostrils, shape of the groove with the fontanels, which is a long slit continued from the snout right to the base of the postoccipital process, containing two fontanels separated by a bridge between the eyes, the narrow spike-like postcleithral process covered by skin and therefore not very conspicuous, the long postoccipital process of even width throughout connecting with the predorsal plate, etc.

Distribution. — At present *P. procera* is only known from its type-locality, the Crique Balaté, one of the northernmost affluents of the Marowijne/Maroni, and the fact that it was not found anywhere else in the Marowijne/Maroni basin, suggests that it is confined to coastal rivulets, the same habitat occupied farther west by *P. macturki*.

In the Crique Balaté *P. procera* and *P. cristata* were obtained in mixed samples. This sympatric occurrence confirms the view, based on their morphology, that they are not closely related.

Discussion. — *Pimelodella* is a large genus of which over 60 species have been described. The genus appears to be confined to tropical South America, with the greatest numbers of species in the Amazon and Orinoco basins; unlike the related *Rhamdia* it is not known to range far into Central America. In the Guianas the genus is rather poorly represented. Only three species were hitherto known from this region: *P. cristata*, distributed throughout and one of the commonest freshwater fishes; *P. macturki*, which replaces the preceding species in the littoral of (British) Guyana and north-western Suriname, and *P. megalops*, on present evidence confined to the Essequibo basin, where it has been recorded from the lower Potaro and the middle course of the Essequibo, a little downstream from the Potaro mouth.

Obviously, comparison of *P. procera* with the three species listed above was essential. No material of *P. megalops* has been available, but the large eye (2.5 in head), the longer adipose fin (3.33 in standard length) and the long pectoral spines (slightly shorter than head), with strong teeth along the posterior margin (cf. Eigenmann, 1912: 168-170) should suffice to distinguish it. Besides, *P. megalops* is characterized by small size; Eigenmann's 60 specimens varied in total length from 56-100 mm, from which a maximum standard length of ca. 70-75 mm can be deduced.

P. macturki is an even smaller species: Eigenmann's 32 specimens ranged from 46-76 mm in total length, from which a maximum standard length of ca. 60 mm is deducible; 190 specimens from north-western Suriname measure from 25-83 mm in standard length and I found females of as small as 50 mm standard length sexually mature and full of eggs; this species is less slender than *P. procera* (body width between the pectoral bases 5.0-5.7 times in standard length; as so many specimens are gravid, body depth is not a good measure for comparison); the lateral band is grey rather than black and not very conspicuous, but the dorsal fin is black-tipped, although not as prominently as in *P. procera*; the teeth along the posterior edge of the pectoral spine are very well developed, their length practically equalling the width of the spine (in *P. procera* and *P. cristata* the teeth are usually less than half the width of the spine, see fig. 4); vertebrae (3 specimens): 35, 36, 36.

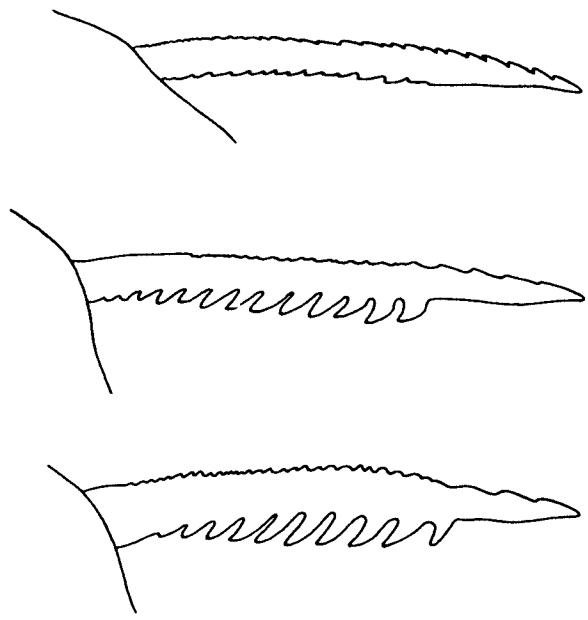

Fig. 4. From top to bottom: right pectoral spine, seen from above, of *Pimelodella procera* (4 ×), *Pimelodella lateristriga* (4 ×). *Pimelodella macturki* (8 ×).

P. cristata differs from *P. procera* by being a little less slender (body depth 6.0-6.8 against 6.5-7.4 in standard length); colour pattern different, without a distinct black tip to the dorsal fin and with a narrower black lateral band; maxillary barbels longer, reaching at least to the end of the adipose base and frequently to the tip of the caudal fin; adipose fin of course very much longer (2.25-3.0 against 3.7-4.0 times in standard length); number of vertebrae higher, normally 40-45; predorsal length less (3.35-3.4 against 2.95-3.0 in standard length); shape of D and V different. The last-mentioned differences can be described as follows: in *P. cristata* the dorsal fin is rounded in outline, with the 2nd and 3rd rays longest, the ventrals are rounded, the 2nd and 3rd rays being longest; in *P. procera*, on the other hand, the dorsal fin has an almost straight distal border and the ventrals are evenly rounded, with the 3rd and 4th rays longest.

A direct comparison with one other representative of the genus is meaningful: *P. lateristriga* (Müller & Troschel). Although old records of this species from Suriname are undoubtedly erroneous (cf. Mees, 1974: 142), on present evidence this is one of the most widely distributed members of its genus, ranging from the Amazon through eastern Brazil south to Rio Grande do Sul. There are records from as far afield as Amazonian Peru (cf. Eigenmann & Allen, 1942: 99), but in my opinion they require verification. The occurrence of this widely distributed species in the Guianas would not be unlikely.

For a better understanding of the characters and distribution of *P. lateristriga*, it is important to know its type-locality. In the original description this is merely given as: "Brasilien, durch v. Olfers" (Müller & Troschel, 1849: 4), and surprisingly no attempt appears ever to have been made to restrict this although Lütken (1875: 171) stated that the type specimen was sent: "formodentlig fra det sydlige Brasilien". Fortunately, the collector's name provided by Müller & Troschel makes a restriction very well possible. I. F. J. M. von Olfers (1793-1872) lived in Rio de Janeiro from 1817-1821 and again from 1826-1828. During his first stay he was Secretary of the Prussian Legacy to the Portuguese court. In 1821 he moved with the court of King João VI to Lisbon, to return to Brasil a few years later as Prussian Representative to Brasil, which in the meantime had become independent from Portugal under Emperor Dom Pedro I. During his first stay, v. Olfers participated with his friend F. Sellow in an expedition to Minas Geraes and São Paulo. The type specimen of *P. lateristriga* could have been collected either at or near Rio de Janeiro, or during this expedition, which led over Ouro Preto to the Rio das Velhas, and from there over S. João del Rey and Campinha to Ypanema and Porto Veliz (cf. Stresemann, 1948: 413; Gebhardt, 1964: 264). No exact type-locality can be reconstructed from this itinerary, but it proves that v. Olfers never was more than 500 km away from Rio de Janeiro. In the absence of more precise information, material from near Rio de Janeiro may be regarded as topotypical.

Through the generosity of Dr. H. J. Paepke (Museum für Naturkunde, Berlin) and Mr. L. E. de M. Cardoso (Museu Nacional, Rio de Janeiro), I have

been able to compare my material of *P. procera* with the holotype of *P. lateristriga* (ZMB no. 3038) and with three freshly-taken specimens collected in 1981 in the Lagoa de Juturnaíba, ca. 100 km East of Rio de Janeiro (now RMNH nos. 28719, 28720). Also available was the sample of five specimens from Porto Real, Rio de Janeiro, recorded by Van der Stigchel (1946: 58). All these specimens differ by having a deeper body, a deeper caudal peduncle (2.3-3.2 against 3.6-4.5 times in head), D and V of the shape described above for *P. cristata*, A 12-14 against A 10-12. Moreover the colour pattern is different, with only some diffuse dusky colouring towards the tip of D instead of a distinct black tip.

The material ascribed above to *P. lateristriga* is in one character not uniform: ZMB no. 3038 and RMNH nos. 28719, 28720 have the posterior margin of the pectoral spines provided with strong teeth, equal to the width of the spine (an additional character in which they differ from *P. procera*), but the specimens from Porto Real (RMNH no. 17301) have these teeth much shorter, little more than a quarter of the width of the spine. The description given by Van der Stigchel (l. c.): "Pectoral spine unusually strong and sharp, 12-14 retrorse hooks along the inner margin" does not really fit these specimens and appears to have been adapted uncritically from Eigenmann & Eigenmann (1890: 157): "Pectoral spine strong, unusually strong and sharp retrorse hooks along the inner margin". Probably RMNH no. 17301 represents a different species, but as all samples differ from *P. procera* in the characters listed above, a further discussion is irrelevant here.

Of course I have also consulted the works of Eigenmann (1917) and Fowler (1951), but none of the species described by these authors appears to agree with *P. procera*.

Rhamdia quelen (Quoy & Gaimard)

Pimelodus quelen Quoy & Gaimard, 1824, Voy. Uranie, Zool.: 228, pl. 49, fig. 3, 4 — Montevideo (reference not verified).

Material. — One specimen, 13 October 1979, Crique Awahakiki (RMNH no. 28589), standard length 147 mm. Two specimens, 22 January 1980, Crique Balaté (RMNH no. 28590), standard length 82, 187 mm.

Heptapterus longior (Eigenmann)

Chas cranus longior Eigenmann, 1912, Mem. Carnegie Mus., 5: 160, pl. XIV fig. 2 — Amatuk, Br...sh Guiana.

Material. — Four specimens, 4 October 1979, Crique Boulanger (RMNH no. 28591), standard length 56, 62, 62, 85 mm. Three specimens, 9 October 1979, Crique Balaté (RMNH no. 28592), standard length 51½, 87, 92 mm. Five specimens, 4 March 1980, Crique Balaté (RMNH no. 28593), standard length 44-ca. 80 mm.

Distribution. — The specimens from the Crique Boulanger constitute an eastward extension of the known range of this species by about 200 km; hitherto the easternmost records were from the Marowijne/Maroni basin.

Heptapterus bleekeri Boeseman

Heptapterus bleekeri Boeseman, 1953, Zool. Meded., 32: 3 — Marowini Basin, Nassau Mountains (see remarks on this locality under the heading Distribution).

Material. — Six specimens, 21 January 1980, Cascade Maroni (RMNH no. 28594), standard length 52, 74, 98, 128, 140, 155 mm.

Distribution. — This species had not previously been recorded from French Guiana, but was to be expected as it was already known from Suriname and from Amapá.

The type-locality as given by Boeseman (1953) is misleading. It is a creek on the eastern side of the Nassau Mountains, belonging to the Marowijne/Maroni basin. The Marowini/Marouini, on the other hand, is a head river of the Lawa, which in its turn runs into the Marowijne/Maroni, and *H. bleekeri* has never yet been recorded from it. As far as I am aware, the Marowini/Marouini is ichthyologically unknown.

Discussion. — *Heptapterus bleekeri* was known from eleven specimens (cf. Boeseman, 1953; Mees, 1967: 228 and 1974: 184), so that Mr. Planquette's additional material is most welcome. Finray counts of these specimens are: D 7 (i.6), A 21-23, P 8 (i.7), in one specimen P left 6 (i.5), right 8 (i.7), and in one specimen P left 7 (i.6), right 6 (i.5), V 6 (i.5), C 13-16 (branched rays only). The largest specimen previously recorded had a standard length of 89 mm; three specimens of the present sample exceed this size considerably.

Pseudopimelodus raninus raninus (Valenciennes)

Pimelodus raninus Valenciennes, 1840, in Cuvier & Valenciennes, Hist. Nat. Poiss., 4° ed.) 15: 117, pl. 434 — La Mana.

Material. — One specimen, 3 October 1979, Crique Blanche (RMNH no. 28595), standard length 39 mm. Three specimens, 8 October 1979, Crique Vampire (RMNH no. 28596), standard length 46½, 54, 76 mm. 15 specimens, 9 October 1979, Crique Balaté (RMNH no. 28597), standard length 30-82 mm. Two specimens, 13 October 1979, Crique Awahakiki (RMNH no. 28598), standard length 68, 78 mm. Three specimens, 3 March 1980, below Acarouany (RMNH no. 28599), standard length 52, 70, 81 mm.

Discussion. — The two specimens collected downstream from Acarouany are important as being practically topotypical of the species. The maximum standard length of 82 mm agrees exactly with the maximum standard length of 45 specimens from Suriname and 16 specimens from French Guiana which I examined previously (cf. Mees, 1974: 207, 209), and support the surmise that this is close to the maximum size the species can attain in the Guianas.

Pseudopimelodus nigricauda Mees

Pseudopimelodus nigricauda Mees, 1974, Zool. Verh., 132: 218, pl. 11, 12 — Sipaliwini, Suriname.

Material. — One specimen, 13 October 1979, Crique Awahakiki (RMNH no. 28600), standard length 153 mm. Three specimens, same data (RMNH no. 28601), standard length 54, 66, 69 mm.

Distribution. — This species had not previously been recorded from French Guiana, but its occurrence was predictable as it is widely distributed in Suriname and was already known from the Marowijne/Maroni basin (cf. Mees, 1974: 220).

HELOGENEIDAE

Helogenes marmoratus Günther

Helogenes marmoratus Günther, 1863, Ann. Mag. Nat. Hist., (3) 12: 443 — the Essequibo.

Material. — Three specimens, 23 September 1978, Crique St. Anne, an affluent of the Mana (RMNH no. 28602), standard length 31, 32, 52½ mm. 19 specimens, 8 October 1979, Crique Vampire (RMNH no. 28603), standard length 25-56½ mm. Four specimens, 4 March 1980, Crique Balaté (RMNH no. 28604), standard length 46, 48, 50, 53 mm.

Discussion. — *Helogenes marmoratus*, originally described from the Essequibo (the type locality is a bit vague, cf. Günther, 1863), is widely distributed in Suriname, from which country it was first recorded by Steindachner (1915: 86), and subsequently by Boeseman (1952, 1953, 1954). Inasmuch as Steindachner's specimens came from near Albina on the Marowijne/Maroni and Boeseman also reported on material from the Marowijne/Maroni (not Marowini, see remark on p. 55) basin, the extension of the range into western French Guiana, in the eastern affluents of the Marowijne/Maroni, was to be expected.

The numbers of anal rays I counted in this material vary from 36-42. Steindachner (l. c.) reported for mostly Amazonian specimens A 41-46. Delsman (1941: 80) described as *H. amazonae* a specimen from Manaos, on the basis of having A 45, as against A 37-40 in *H. marmoratus*. The type of *H. amazonae* was re-studied by Glodek & Carter (1978), who did not mention any other characters, so that I must assume that there are none. It looks as if the number of anal rays averages higher in Amazonia than in the Guianas, but it is doubtful that this difference justifies expression in nomenclature. Perhaps *H. amazonae* can be maintained as a subspecies (A 41-46, against A 36-42 in the nominate race).

The subspecies *H. marmoratus uruyensis* Fernández-Yépez (1967) was described as having only 31-36 anal rays; in addition its anal base would be 43-49% of the standard length, as against 55% in *H. m. marmoratus*. I can confirm that in all specimens of the latter examined by me the anal base is over half the standard length. Fernández-Yépez also referred to the shorter mental barbels of *uruyensis*, but in the nominate race there is considerable variation in their length: frequently they reach barely beyond the pectoral base, and only rarely do they reach the ventral origin.

Glodek & Carter (1978) presented a distributional map of the Helogeneidae, but it is very incomplete; many published records (such as those by Steindachner and Boeseman referred to above) have been ignored. They further speculated that: 'the absence of this family from localities south of the main stream of the

Amazon may indicate that the Amazon itself acts as a barrier to the dispersal of these fishes'', but Steindachner recorded specimens from creeks near Pará and other localities on the south bank of the Amazon.

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