A NEW SPECIES OF PIMELODID CATFISH FROM EASTERN BRAZIL, PIMELODELLA BOSCHMAI NOV. SPEC.

by

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In 1955, the late Dr. O. Schubart, Director of the Estaçao Esperimental de Biologia at Pirassununga (São Paulo, Brazil) kindly put at my disposal a small collection of fishes which he had assembled in the Mogi-Guassu (river) below the Cachoeira de Emas (Emas falls). Only a series of eight apparently conspecific specimens is discussed here.

At first sight, the present specimens appear to closely resemble *Pimelodella griffini* Eigenmann, especially six examples with a prolonged first soft dorsal ray. However, excepting several minor differences, *P. griffini* has the dorsal spine prolonged instead of the first ray, while it has the adipose dorsal fin much shorter. Having only two specimens of *P. griffini*, moreover of dubious identity, available for comparison, extensive use was made of Eigenmann's (1917) monograph of the genus.

As already indicated, of the eight apparently conspecific specimens only six show the filamentous prolongation of the first soft dorsal ray, which seemed to point to two possibilities: either the present material might consist of two separate new species, or the difference in length of the first soft dorsal ray has to be considered as a mere sexual character. Though sexual differences of this kind never seem to have been reported from *Pimelodella* species, the fact that no other differences were found in the usual diagnostic characters made the second possibility much more likely. This opinion was confirmed by a close examination of the morphological features of the abdomen and by dissecting part of the specimens.

The examples with prolonged rays proved to have a wel developed conical sexual papilla, rather remote from the vent, while dissecting showed an obvious milt, making it clear that all were male. The two examples without filaments, however, have vent and papilla less remote, the papilla very small, while dissecting proved them to be female (fig. 1a, b).

The specimens are now deposited in the Rijksmuseum van Natuurlijke Historie at Leiden.

Pimelodella boschmai nov. spec. (fig. 1)

Material. — 1 ex., ♂, 73 (90) mm, reg. no. RMNH 23248, holotype of the species (figured example); 5 ex., ♂ ♂, 65 (80+), 66 (79+), 78 (104+), 83 (104+),

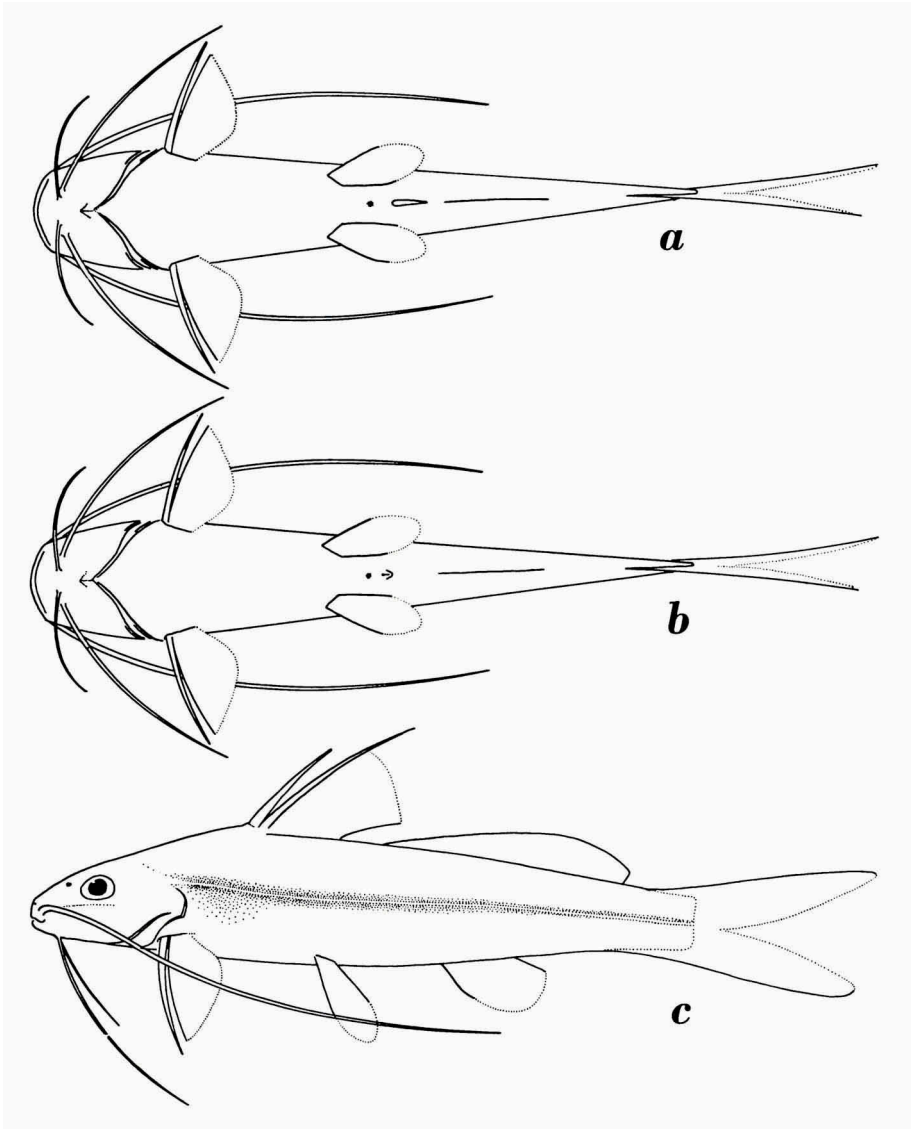

Fig. 1. *Pimelodella boschmai* nov. spec. a, c, holotype; b, paratype. a, ventral view of male, slightly simplified; b, ventral view of female, simplified; c, lateral view of male. a-c, × 1.2.

84 (96+) mm, reg. no. RMNH 23251, paratypes (all with mutilated caudal fins); 2 ex., ♀ ♀, 92 (106+), 95 (104+) mm, reg. no. RMNH 23250, paratypes; all from the Mogi-Guassu (river) below the Emas falls, leg. et don. Dr. O. Schubart, Pirassununga, Brazil, 1955.

Diagnostic characters. — Most conspicuous, though only in the males, is the filamentous prolongation of the first soft ray in the dorsal fin. Considering the characters used in Eigenmann's key (1917, pp. 231-235), the following data may here be added: head without conspicuous mucous pores; basal length of adipose fin 2.65-2.95 in standard length, extending beyond anal base; pectoral spine with 11 to 16 sharp serrae along proximal $^2/_3$ of posterior margin, the anterior margin with about 30 small tubercles along proximal half and about 10 shallow retrorse hooks along distal half; caudal lobes subequal, the upper lobe hardly wider and slightly longer than the lower lobe; a narrow linear lateral band.

Description. — D I.6; A 11-12; P I.9 (I.10 in one example); V1.5.

Head 4.2-4.5 in standard length, slightly depressed, its depth at base of occipital process 1.5-1.7, its width 1.25-1.45 in its length; eye situated at or slightly before half head length, its horizontal diameter 3.7-4.1 in head, 0.7-0.9 in the narrower interorbital width, 1.35-1.45 in snout; interorbital width 4.5-5.1 in head; nares remote; frontal and parietal fontanels elongate, the latter reaching to base of occipital process with its width decreasing backwards; occipital process narrow, the sides parallel or almost parallel, the width 2.5-3.0 in the length, reaching the predorsal plate; gill membranes free; teeth on jaws in villiform bands, none on roof of mouth; maxillary barbels reaching to below $^1/_5$ to $^3/_4$ of adipose fin, outer mental barbels to $^1/_2$ to $^3/_4$ of the distance between the anterior insertions of pectoral and ventral fins, inner mental barbels to between pectoral bases, seldom beyond.

Body roundish, posterior part and caudal peduncle increasingly compressed, depth below dorsal spine 5.2-5.6, depth of peduncle 11-13 in standard length.

Dorsal spine rather feeble, pungent, considerably shorter than the anterior soft rays, its length 1.3-1.4 in head. In one specimen the spine has a filamentous prolongation, the total length being 1.4 times the head length, while in another example such a prolongation evidently has existed; though this character about agrees with *P. griffini*, the further characteristics definitely place these specimens in the present species. The spine is armed anteriorly with usually 7 to 10 shallow barbs, which may be indistinct or partly disappearing, posteriorly with about 8 to 15 small teeth. The first soft dorsal ray is always considerably longer than the spine and especially prolonged in the males, 1.25 head length and almost equal to predorsal length; in the females almost equalling head length. Adipose fin base 2.65-2.9 in standard length. Pectoral spine 1.2-1.35 in head, anterior margin with 28 to 36 small tubercles proximally and 8 to 10 shallow serrae distally, posterior margin with 11 to 16 sharp barbs. Caudal fin in most specimens mutilated, in

holotype with both lobes subequal, the upper lobe hardly wider but slightly longer, uper lobe 1.3, lower lobe 1.15 head length.

The specimens having been preserved for a considerable time in formalin, the general colour now is yellowish, with the lower parts and the fins lighter, and with a narrow brownish linear lateral band still distinct, running from behind gill aperture to caudal base, but not continued on head as in *Pimelodella lateristriga* (Müller & Troschel). According to the information received, in life the species is silvery white with a darker band along the sides. This rather conventional colouration, found also in other species occurring at the same locality, may be the reason that the present species has not been distinguished before.

Remarks. — Judging by Eigenmann's monograph, the species seems closely related to *Pimelodella avanhandavae* Eigenmann (1917, p. 240, pl. 29 fig. 3), but it differs, e.g., by the occurrence in the males of the prolonged soft dorsal ray, by the armature of the spines, by the larger eye, by the longer pectoral spine, and by the usually longer adipose fin. It is interesting to note that *P. avanhandavae* occurs in a nearby branch of the same Parana River system, the Tieté River, and that the present species apparently only occurs downstream of the Emas falls.

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Literature cited

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