

A NEW SPECIES OF *PAROTOCINCLUS*
(PISCES: LORICARIIDAE) FROM GUYANA

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Abstract.—A new species of loricariid fish, *Parotocinclus collinsae*, is described from the Essequibo drainage, Guyana. This species is most similar to *P. maculicauda* from the Amazon River drainage and *P. britskii* from the Coppename River, Surinam. This is only the second species of the genus reported from north of the Amazon drainage.

The most recent review of the loricariid genus *Parotocinclus* Eigenmann and Eigenmann (1889) listed thirteen species (Garavello 1977). In this paper we describe a new species of the genus *Parotocinclus* from the Essequibo River drainage, taken during recent collections of freshwater fishes made by RES in Guyana.

Methods.—Morphometric measurements were made with a Wild M-8 binocular microscope and an ocular micrometer. Morphometrics are those used by Garavello (1977) to differentiate species. Body depth was measured at origin of dorsal fin, head length was from tip of snout to rear margin of bony opercle, body width was measured at widest region of scapular bridge, and orbital diameter was measured horizontally. Morphometrics of holotype are given first followed by range of paratypes in parentheses. Spinous fin elements are designated with a small "I" since ostariophysans do not have true spines and unbranched rays are designated with "i." Meristics of the holotype are indicated by an asterisk (*). The following museum abbreviations are used: AMNH = American Museum of Natural History, USNM = National Museum of Natural History, Smithsonian Institution.

Parotocinclus collinsae, new species

Figs. 1-3

Holotype.—AMNH 55433, 25.0 mm SL; Guyana, Essequibo Province, tributary to Takutu River about 2 mi from Mazarahally Takutu lumber camp in Takutu Mountains, approximately 6°15'N, 59°5'W; R. E. Schmidt and A. Pappantoniou, 17 Aug 1983.

Paratypes.—Same data as holotype; AMNH 55434, 4 specimens, 18.5-25.5 mm SL; USNM 265091, 2 specimens, 18.5-22.0 mm SL.

Diagnosis.—A *Parotocinclus* with the following meristics and color pattern: 21-22 lateral line plates, more than 25 premaxillary and dentary teeth on each side, abdomen covered with regular series of plates; one light saddle at dorsal fin and two dark saddles: one between dorsal and adipose fins, and one between adipose and caudal fins.

Description.—Fin element counts typical for *Parotocinclus* (Garavello 1977): Dorsal—i, 7; Anal—i, 5; Pectoral—i, 6; Pelvic—i, 5; and Caudal—i, 14, i. Pre-maxillary teeth 29-33* on each side, mandibular teeth 23-32* on each side with the smallest specimens having the fewest teeth. Pored lateral line plates 21* or 22.

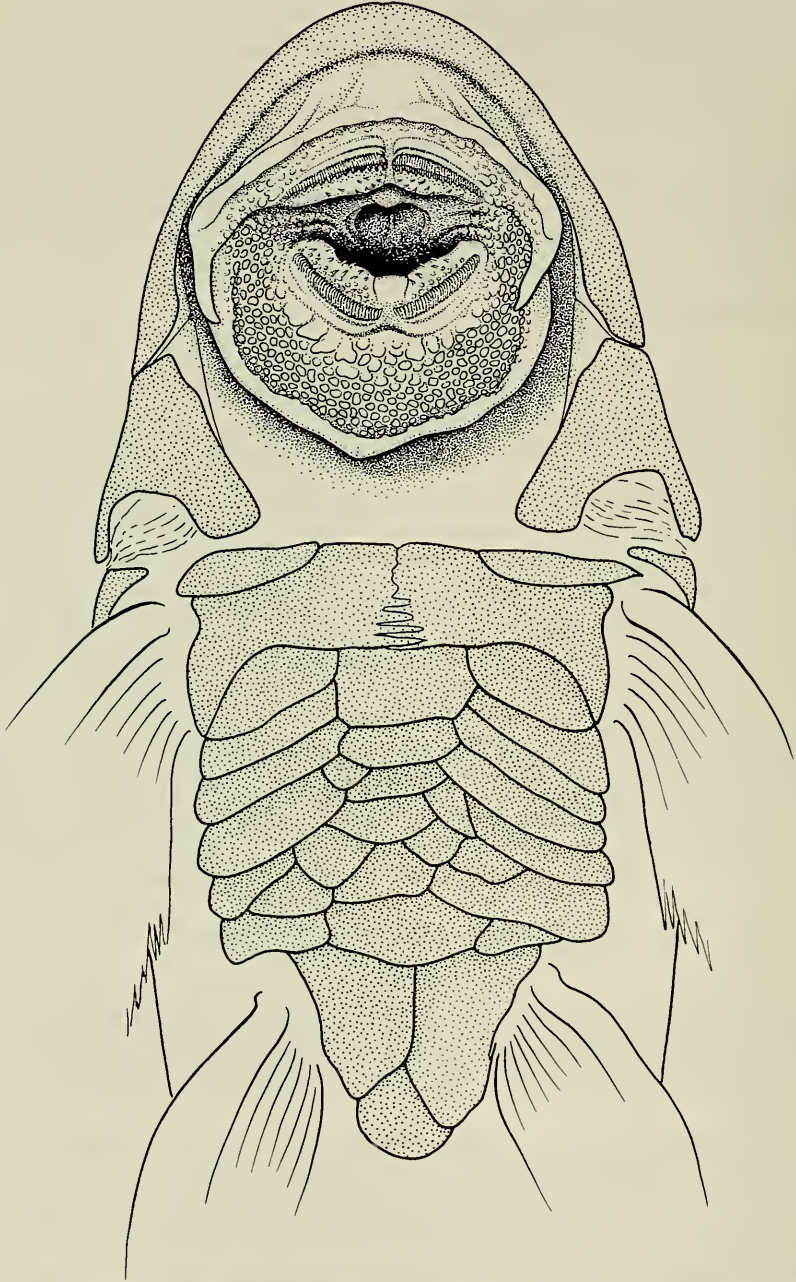


Fig. 1. Ventral view of head and abdomen of holotype of *Parotocinclus collinsae*, AMNH 55433 showing arrangement of abdominal plates.

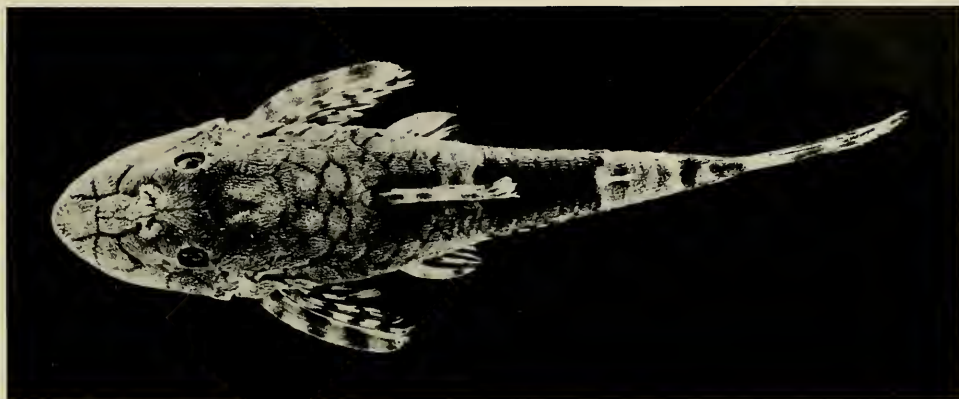


Fig. 2. Dorsal view of holotype of *Parotocinclus collinsae*, AMNH 55433 (25.0 mm SL) showing reticulated appearance of plate junctions.

Standard length/body depth 5.2 (4.8–6.6), SL/body width 3.9 (3.6–4.1), head length/orbital diameter 7.4 (6.1–8.1) and interorbital width/orbital diameter 2.8 (2.4–3.0). Lips covered with large papillae, lower lip extends approximately half way to exposed coracoids. Barbel extends posteriorly from the corner of mouth no further than posterior margin of lower lip.

Body covered with plates except for area between lower lip and exposed coracoids, triangular area around anal papilla, and opening of air bladder capsule ventral to posttemporal plate; plates uniformly covered with recurved denticles, those on snout somewhat enlarged. Plates without ridges except median carina on posterior two-thirds of snout to between nares, 2 shorter carinae extending from lateral to nares to above eye. One pair of plates posterior to occiput, followed by single median plate, second pair of plates, and second median plate, latter anterior to origin of dorsal fin in holotype; smaller specimens with fewer plates on nape. Six plates between dorsal and adipose fins, 4 between adipose and caudal fins. Abdomen with 3 rows of 6 plates each in holotype (Fig. 1), only lateral plates apparent in smaller specimens. Posttemporal plate imperforate.

Base color on dorsolateral surface light orange-brown in ethanol. Junctions between plates on head, back, and sides of body darker than plates, producing reticulated appearance, especially prominent on holotype (Fig. 2). Very faint, wide dark lateral band from anterior to eye to insertion of dorsal fin, with equally faint dorsal saddles at supraoccipital and base of dorsal fin. Nape comparatively light. Dark saddle between posterior of dorsal fin and anterior of adipose fin extends ventrally to mid-lateral line where it divides into anterior and posterior ventral projections (Fig. 3); latter almost completely encircling peduncle. Second, narrower dark saddle at base of caudal fin with similar pattern on ventral portion of sides, completely encircling peduncle. Ventral surface of head, abdomen, breast, and ventral and ventrolateral portions of peduncle white. Some discrete black spots on breast, abdomen, and ventral surface of head in holotype; spots fewer or absent on paratypes. Spines and rays of all fins with black dashes arranged to appear as bars; pectoral with 5 bars, pelvic-1 or 2*, anal-1 or 2*, dorsal-4, adipose-1, caudal-3.



Fig. 3. Lateral view of holotype of *Parotocinclus collinsae*, AMNH 55433 (25.0 mm SL) showing lateral plate arrangement and color pattern.

Etymology.—Named for Dr. Margaret Collins (Alfred Emerson Field Station, Kartabo, Guyana) who made it possible for the senior author to collect fishes in Guyana.

Biology.—The type-series was collected in a stream of moderate gradient in virgin rainforest in the Takutu Mountains, approximately 300 m elevation. The substratum was predominantly sand with many fallen trees. Collections were made with a 3 m seine in less than 1 m depth by kicking up and driving fishes downstream into the net.

Discussion.—*Parotocinclus collinsae* is most similar to *P. maculicauda* and *P. britskii* in having the abdomen covered with regular rows of plates and possessing more than 25 premaxillary and dentary teeth on each side. It differs from *P. maculicauda* in having 21–22 plates in the lateral line rather than 24–26. *Parotocinclus maculicauda* has four dark dorsal saddles situated differently. *Parotocinclus britskii* has five rows of plates on the abdomen (rather than three) and three dark dorsal saddles: one under the anterior part of the dorsal fin, one under the adipose fin, and one just anterior to the caudal fin.

Most *Parotocinclus* species are known from coastal Brazil (Garavello 1977). *Parotocinclus amazonensis* from Rio Solimões and *P. britskii* from the Coppe-name River, Surinam are exceptions. *Parotocinclus collinsae* is the first record of the genus from the Essequibo River drainage.

Inclusion of *P. collinsae* in the genus *Parotocinclus* is somewhat problematical. Boeseman (1974) distinguished *Parotocinclus* from other hypoptopomatine genera by the presence of an adipose fin, 3–5 series of plates on the abdomen and a slightly flattened head with eyes situated dorsolaterally, not visible from below. Garavello (1977) used a broader definition of the genus, to include species with naked abdomens or nearly lateral eyes. Further, he identified two species groups within *Parotocinclus* but did not designate them as genera because he was unable to place *P. spilurus* into either group. As with *P. spilurus*, *P. collinsae* shares characters with both groups and further blurs the distinction between them. If the genus were to be subdivided, *P. collinsae* would quite possibly remain in *Parotocinclus* due to its regular pattern of abdominal plates (also present on *P. maculicauda*, the type-species) which are, we believe, a derived feature within the group.

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