Bijdragen tot de Dierkunde, 53 (1): 33-48 — 1983

THE MAILED CATFISH GENUS *LASIANCISTRUS* REGAN, 1904, FROM FRENCH GUIANA AND SURINAM, WITH DESCRIPTIONS OF TWO NEW SPECIES (PISCES, SILURIFORMES, LORICARIIDAE)

by

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SUMMARY

Examination of recently collected material of the mailed catfish genus *Lasiancistrus* Regan, 1904, from French Guiana and Surinam revealed *L. niger* (Norman, 1926), and two new species: *L. brevispinis* and *L. longispinis*. The three species are described and figured. *Lasiancistrus* is compared with 13 other genera, forming the tribe Ancistrini of the subfamily Ancistrinae.

RÉSUMÉ

L'examination d'exemplaires de Poissons-Chats cuirassés récemment collectionnés appartenant au genre *Lasiancistrus* Regan, 1904, en provenance de la Guyane française et du Surinam, a mis les auteurs en présence de *L. niger* (Norman, 1926), ainsi que de deux nouvelles espèces: *L. brevispinis* et *L. longispinis*. Ces trois espèces sont décrites et figurées. On compare *Lasiancistrus* avec 13 autres genres formant la tribu Ancistrini de la sous-famille Ancistrinae.

INTRODUCTION

Lasiancistrus was originally established as a subgenus of *Ancistrus* Kner, 1854, by Regan (1904: 194, 224). Its original diagnosis is given in Regan's key. He included four species (: 237-239), viz., '*Lasiancistrus heteracanthus* (Günther, 1869), *L. pictus* (De Castelnau, 1855), *L. mystacinus* (Kner, 1854), and *L. guacharote* (Valenciennes, in Cuvier & Valenciennes, 1840), the latter with *Chaetostomus trinitatis* Günther, 1864, as a doubtful synonym.

Eigenmann (1910: 409) designated *Chaetostomus heteracanthus* Günther, 1869, the type-species of *Lasiancistrus*, which was then raised to generic level.

Lasiancistrus belongs to the subfamily Ancistrinae, which is characterized by the possession of well-developed evertible interopercular odontodes. Together with 13 other genera, *Lasiancistrus* belongs to the tribe Ancistrini. The members of this tribe neither possess an extremely large temporal plate as in the tribe Acanthicini, nor have fused premaxillae as in the tribe Pseudacanthicini (Isbrücker, 1980).

Lasiancistrus is distinguishable from other genera of the Ancistrini by the combination of the following characters:

(1) snout margin covered with dermal ossifications (snout with a wide naked margin in *Chaetostoma* Von Tschudi, 1845, *Ancistrus*, *Lipopterichthys* Norman, 1935, and *Hypocolpterus* Fowler, 1943);

(2) presence of anal and adipose fin (absent in *Leptoancistrus* Meek & Hildebrand, 1916);

(3) presence of numerous filiform teeth (absent in *Panaque* Eigenmann & Eigenmann, 1889);

(4) possession of seven branched dorsal fin rays (ten in *Megalancistrus* Isbrücker, 1980);

(5) a depressed body (compressed in *Hemiancistrus* Bleeker, 1862, and *Peckoltia* De Miranda Ribeiro, 1912);

(6) absence of a membraneous extension posterior to the last dorsal fin ray (present in *Parancistrus* Bleeker, 1862);

(7) absence of a very wide head (present in *Cordylancistrus* Isbrücker, 1980);

(8) absence of extremely long interopercular odontodes (present in *Dolichancistrus* Isbrücker, 1980).

Lasiancistrus is reminiscent of *Pseudancistrus* Bleeker, 1862, a genus of the subfamily Hypostominae, which is—compared with the

subfamily Ancistrinae—characterized by the absence of evertible interopercular odontodes.

Recent collections of *Lasiancistrus* from French Guiana and Surinam were examined. A comparison was made with the type-material of the only known *Lasiancistrus* species from French Guiana, *L. niger* (Norman, 1926). This resulted in the identification of *L. niger* from new material (the first records since its original description), and in the discovery of two undescribed species: *L. brevispinis* n. sp. and *L. longispinis* n. sp., which are presently described and illustrated. The lectotype of *L. niger* is designated and illustrations of this species are presented for the first time.

ABBREVIATIONS

ANSP	Academy of Natural Sciences, Philadelphia.
BMNH	British Museum (Natural History), London.
CAS	California Academy of Sciences, San Francisco.
FMNH	Field Museum of Natural History, Chicago.
HL	Head length.
INPA	Instituto Nacional de Pesquisas da Amazônia, Manaus.
IRScNB	Institut Royal des Sciences Naturelles de Belgique, Brussels.
MBUCV	Museo de Biología, Universidad Central de Venezuela, Caracas.
MCZ	Museum of Comparative Zoology, Cambridge, U.S.A.
MHNG	Muséum d'Histoire Naturelle, Geneva.
MNHN	Muséum National d'Histoire Naturelle, Paris.
MNRJ	Museu Nacional Rio de Janeiro, Rio de Janeiro.
MZUSP	Museu de Zoologia da Universidade de São Paulo, São Paulo.
NMW	Naturhistorisches Museum Wien, Vienna.
NRM	Naturhistoriska Riksmuseet, Stockholm.
RMNH	Rijksmuseum van Natuurlijke Historie, Leyden.
SL	Standard length.
USNM	National Museum of Natural History, Washington D. C.
ZMA	Instituut voor Taxonomische Zoölogie (Zoölogisch Museum), Amsterdam.
ZMB	Zoologisches Museum der Humboldt-Universität, Berlin.
ZSM	Zoologische Sammlung des Bayerischen Staates, Munich.

ACKNOWLEDGEMENTS

For the loan and/or donation of specimens we are grateful to Mr. G. J. Howes (BMNH), Dr. J.-P. Gosse and Mr. L. Walschaerts (IRScNB), Mrs. Dr. M.-L. Bauchot, Mrs. M. Desoutter and Mr. F. d'Aubenton (MNHN). The photographs were made by Mr. L. A. van der Laan (ZMA), and the drawings by Mr. J. Zaagman (ZMA).

DEFINITIONS OF TERMS (fig. 1, tables I-II)

Abdominal length: measured between bases of pelvic and anal fin.

Adipose spine length: measured from base of spine, posterior to preadipose scutelet.

Anal fin height: greatest height of the fin.

Anal spine length: measured to distal tip of spine, anterior to first branched ray.

Axial length: measured from tip of snout to distal tip of middle caudal fin ray; in mm to the nearest tenth.

Body depth at dorsal: measured at base of dorsal fin spine.

Body width at anal: measured at base of anal fin spine.

Body width at dorsal: measured at base of dorsal fin spine.

Cleithral width (CW in fig. 1): greatest cleithral width; expressed as a ratio of HL in table II.

Depth caudal peduncle: least depth.

Dorsal fin base (DFB in fig. 1): expressed as a ratio of SL in table II.

Dorsal spine length (DSL in fig. 1): expressed as a ratio of SL in table II.

Head depth (HD in fig. 1): measured at the tip of the supraoccipital process; expressed as a ratio of HL in table II.

Head length (HL in fig. 1): measured to the tip of the supraoccipital process; expressed as a ratio of SL in table II.

Interdorsal length (IDL in fig. 1): measured between base of last dorsal fin ray and anterior edge of azygous preadipose scutelet; expressed as a ratio of SL in table II.

Interorbital width (IW in fig. 1): least width of interorbital area; expressed as a ratio of HL in table II.

Lower caudal spine: length of the spine, below last branched ray.

Lower lip length: measured from just beyond base of mandibular teeth.

Mature male: a specimen with markedly well-developed odontodes along margin of snout, on pectoral fin spine, and usually with longer interopercular odontodes than in specimens of undetermined sex.

Maxillary barbel: the produced tip, measured from its posterior base.

Maxillary barbel + lip: measured from base of outer premaxillary tooth to the distal tip of the (produced) barbel.

Maximum orbital diameter (MOD in fig. 1): expressed as a ratio of HL in table II.

Pectoral spine length (P_1SL in fig. 1): expressed as a ratio of SL in table II.

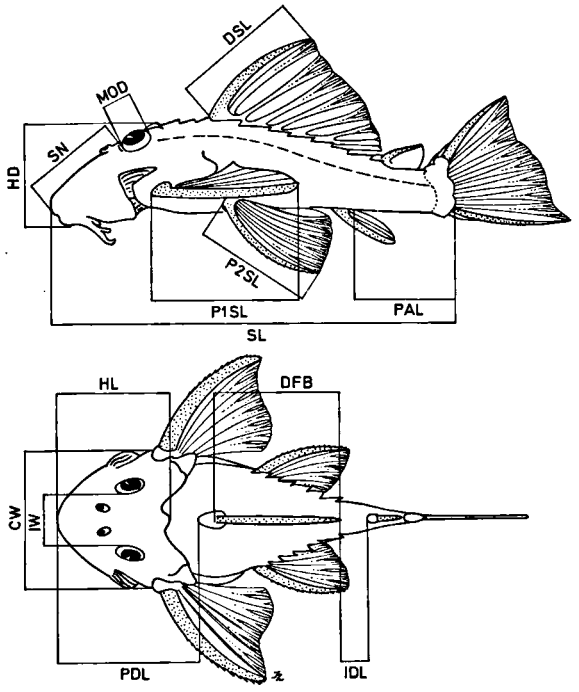

Fig. 1. Diagram of a representative of the tribe Ancistrini, showing some of the measurements used (for abbreviations see section "Definitions of terms").

Pelvic spine length (P_2SL in fig. 1): expressed as a ratio of SL in table II.

Postanal length (PAL in fig. 1): the caudal peduncle, measured from base of last anal fin ray to base of lower caudal fin spine; expressed as a ratio of SL in table II.

Postdorsal length: measured from base of last dorsal fin ray to base of upper caudal fin spine.

Predorsal length (PDL in fig. 1): measured to base of predorsal spinule; expressed as a ratio of SL in table II.

Snout length (SN in fig. 1): measured to anterior orbital rim; expressed as a ratio of HL in table II.

Standard length (SL in fig. 1): measured to base of lower caudal fin spine; in mm to the nearest tenth.

Supracleithral width: measured at the least width between the dorsal extensions of the cleithrum.

Thoracic length: measured between bases of pectoral and pelvic fin at one side.

Upper caudal spine: length of the spine, above first branched ray.

Width caudal peduncle: width at the last dorsolateral body scute, anterior to base of triangular scutelet on caudal fin base.

Lasiancistrus Regan, 1904

Lasiancistrus Regan, 1904: 194, 224 (subgenus of *Ancistrus* Kner, 1854; original diagnosis in key on p. 224; type-species designated by Eigenmann, 1910: 409, *Chaetostomus heteracanthus* Günther, 1869 = *Lasiancistrus heteracanthus*).

Twenty-three species, up to 200 mm in total length (cf. Isbrücker, 1980: 43-47).

Body and head depressed, no naked margin along dorsum of snout, anal and adipose fin present, numerous filiform teeth, long and slender evertible interopercular odontodes, their tips curved towards the head when everted, bristle-like odontodes along margin of snout, enlarged odontodes often present on pectoral fin spine, abdomen anterior to anal fin naked.

Dorsal fin I,7; anal fin I,5; pectoral fin I,6; pelvic fin I,5; caudal fin I,14,I; adipose fin well developed.

The shape of the teeth is similar in both halves of the premaxilla and dentary. The bifurcate lobate teeth are numerous, their number increasing with size.

Lips papillose, maxillary barbels short, pupil of eye partly covered dorsally with a small rounded flap originating from the iris.

Interopercular odontodes

The subfamily Ancistrinae is characterized by an evertible spiny structure on a ligament between the operculum and the interoperculum. It is a patch of elongated odontodes, movable by the opercular muscle: musculus dilator operculi (antagonist: m. adductor operculi). This muscle moves by contraction the elongated operculum upwards and outwards in dorsal direction, causing an everted position of the ligament with the spiny odontodes. This mechanism is a highly specialized structure compared to the fixed enlarged odontodes along the posterior part of the head margin in some of the more primitive genera of Hypostominae, like *Pseudancistrus*.

Lasiancistrus niger (Norman, 1926) (Figs. 2-3, 10; tables Ia, IIa, III)

Hemiancistrus niger Norman, 1926: 96-97 (original description; type-locality: "Oyapock River at Sant Cafoseca [Saut Cafesoca], French Guiana"; five syntypes, up to 200 mm in total length); — Gosline, 1945: 87 (listed).

Lasiancistrus niger; Isbrücker, 1980: 45 (listed).

Material examined

French Guiana, Oyapock River system:

BMNH 1926.3.2:756, lectotype (by present designation), SL 159.0 mm, Oyapock River at Saut Cafesoca, coll. C. Ternetz. — BMNH 1926.3.2:757-760 (4), paralectotypes, SL up to 137.0 mm, same data as lectotype. — MNHN 1982-853 (3), ZMA 115.298 (2), ZMA 115.300 (1), upper course of Oyapock River, small creeks near Trois Sauts (02°15'N 52°53'W), coll. F. d'Aubenton, 28-IX-1976. — MNHN 1982-854 (1), ZMA 115.297 (1), upper course of Oyapock River at Pied Sauts near Trois Sauts, coll. F. d'Aubenton, 5-X-1976. — MNHN 1982-855 (1), Yaloupi River near its confluence (02°47'N 52°29'W) with Oyapock River, coll. F. d'Aubenton, 13-X-1976. — MNHN 1982-856 (1), Armontabo Creek near its confluence (03°41'N 51°58'W) with Oyapock River, coll. F. d'Aubenton, 22-X-1976.

Brazil, Oyapock River system:

IRScNB 19351 (3), ZMA 110.167 (1), Estado Amapá, Oyapock River at Clevelandia, rapids of the "Grande Roche", coll. J.-P. Gosse, 5-XII-1962.

Description

Morphometric data of the lectotype are given in table Ia.

Counts of the lectotype. — Lateral body scutes 27, including a triangular scutelet on the caudal fin base. Small, triangular scutelets on the caudal fin base 8 (left side), 9 (right side) in vertical series. Predorsal scutes 4, between the supraoccipital process and the procurrent dorsal fin spinule: (a) one at either side of the supraoccipital process, (b) a large, median scute (with a faint median suture, anteriorly reaching the supraoccipital process), (c) a median, transversely elongate scute (with a faint median suture), and (d) a predorsal scute surrounding the dorsal fin base. Along the dorsal fin base 8 scutes; 6 scutes between the last dorsal fin ray and the base of the adipose fin spine. Along the anal fin base 2 scutes; 12 scutes between the last anal fin ray and the procurrent caudal fin spinule. Just behind the head 4 scutes at either side in transverse series. Body scutes in 5 principal longitudinal series.

Dorsal fin with a minute procurrent spinule, which is part of the dorsal fin spine locking mechanism, a feeble, slender spine, and 6 branched rays, last one split to its base. Anal fin with a feeble, slender spine, and 4 branched rays, last one split to its base. Pectoral fin with a firm spine, and 6 branched rays. Pelvic fin with a feeble, thick spine, and 5 branched rays. Caudal fin with 5 procurrent spinules (the anterior ones reminiscent of azygous scutelets) in front of the feeble, slender upper caudal fin spine, 14 branched rays, a feeble, slender lower caudal fin spine, and a procurrent spinule in front of the latter.

Along the base of the adipose fin membrane 3 scutes.

Dentition damaged; remains of numerous teeth are present in both the premaxillae and dentaries; they were presumably arranged into a crowded (double) series (like in other specimens examined).

Shape and structure (fig. 2). — Dorsum and sides of body and head, and caudal peduncle completely covered with scutes and dermal ossifications; there are naked areas along the dorsal and anal fin bases, and dorsal to the pectoral and pelvic fin bases. A small oval naked area is present at the snout tip. Supraorbital margin raised.

Dermal ossifications, scutes, fin spines, and rays covered with odontodes, except for the larger part of the ventral median region of the caudal peduncle, where odontodes only abundantly occur along the sides and on the four last scutes.

The odontodes on the scutes are arranged into numerous weakly undulating ridges; the margins of the scutes posterior to about halfway the dorsal fin base have larger odontodes than those on the remaining scutes. The six last ventrolateral scutes form a low longitudinal keel. The dorsal margin of the adipose fin spine is rough. The odontodes on the pectoral fin spine gradually increase in length on the distal two-thirds. They are oblique in position, with tan, antrorse acute tips. Inner margin of the pectoral fin spine dorsally with a series of short, thornlike odontodes. The sides and ventral parts of the pectoral and pelvic fin spines show conspicuous, broad odontodes with rounded tips.

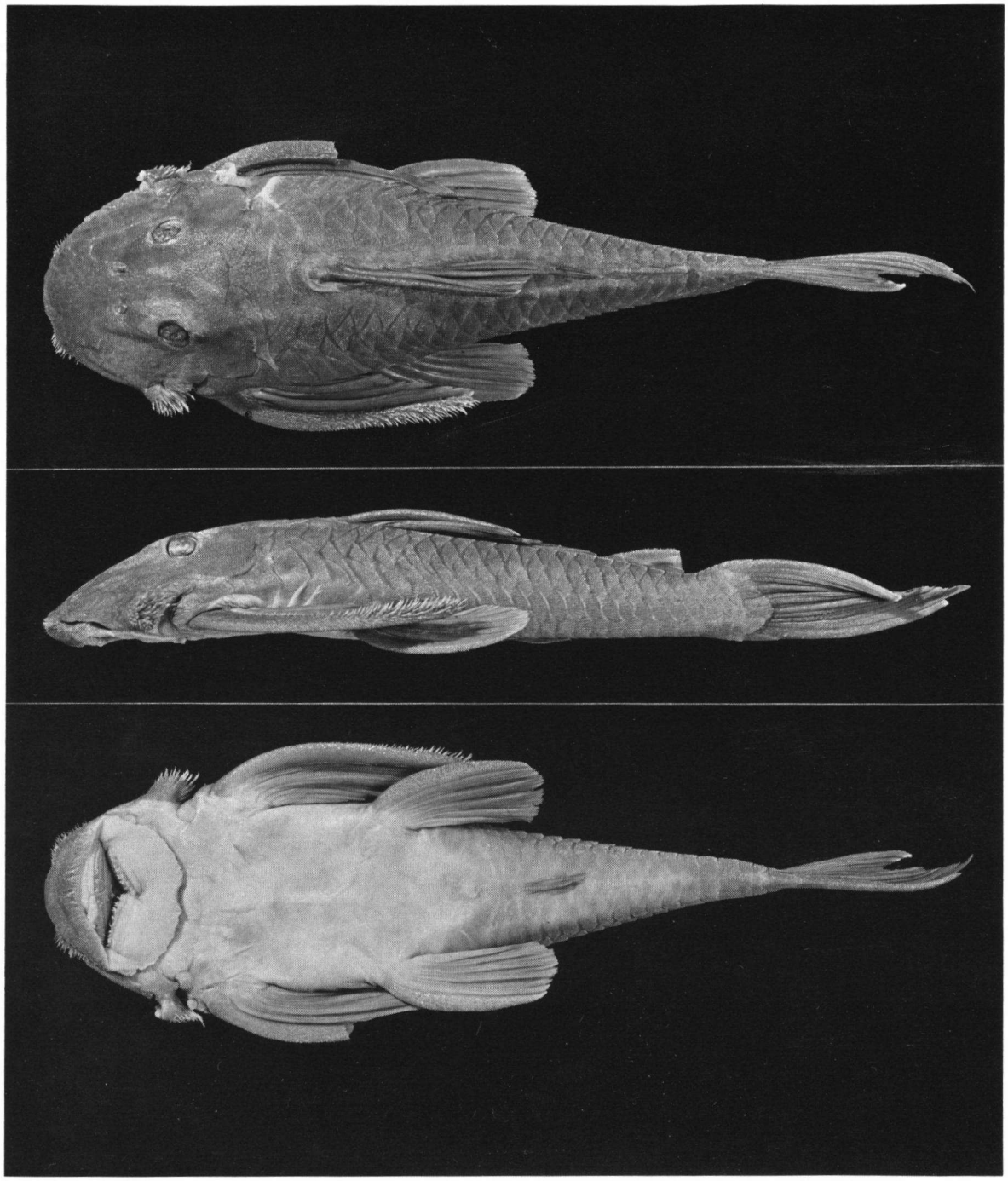

Fig. 2. *Lasiancistrus niger* (Norman, 1926), lectotype in dorsal, lateral, and ventral view.

The sides and front of the head and snout are covered with small, irregular, firmly fused scutelets. The anterior margin of the snout with some short, acute odontodes. The dorsolateral margin of the upper lip with an elongate horizontal area covered with erect, needle-like odontodes (the longest about 1.8 mm) almost reaching the naked snout tip.

Interopercular area with numerous evertible odontodes, increasing in length posteriorly. It is hard to count these odontodes, because the anterior ones cannot be distinguished from the relatively larger inevertible adjacent odontodes.

Body shape at the height of the dorsal fin origin oval; however, the ventrolateral body scutes bend faintly ventrally. Head and body ventrally flat. Dorsum of body between last dorsal rays and the azygous preadipose scutelet flat. Sides at the height of the adipose fin slightly convex.

Abdomen and ventral part of head naked.

Outline of dorsal fin slightly concave anteriorly, slightly convex posteriorly. Adipose fin membrane triangular, with an almost vertical margin. Caudal fin concave, the lower lobe conspicuously longer than the upper lobe. Pectoral fin straight. Pelvic fin convex. Anal fin small, convex, the rays longer than the spine.

Lateral line inconspicuous, consisting anteriorly of bifurcate canals, reaching to the 14th lateral body scute.

Operculum small, with a straight ventral margin, which is provided with small, thornlike odontodes.

Outer surface of upper lip broad, weakly papillate, naked, running through the naked snout tip. At the sides the lip is free from the snout margin, leaving a rather deep groove. Posteriorly, the outer margin of the upper lip is provided with tiny papillae. The inner surface is narrow, closely set with small, transverse elongate papillae, which are minute along the sides, and absent towards the base of the premaxillary teeth. Between the papillae and the teeth is a narrow, transverse fleshy smooth ridge. The upper lip gradually merges with the lower lip, which is much broader and closely set with numerous small, roundish papillae, almost lacking at the lateral and posterior margin. Anteriorly, about half of the lower lip is connected with the head. A minute maxillary barbel protrudes from either side between the upper and lower lips. Posteriorly, the maxillary barbel is connected with the lower lip by a small, conspicuous membranous flap.

Anterior to both the premaxillary teeth, and posterior to the mandibular teeth, a strip of elongate, axial papillae is present. The premaxillae and dentaries in the buccal cavity are covered with tiny papillae on the gums beyond the base of the teeth.

The upper oral valve membrane is bulging outwards. It has a small, round, axial protuberance. A conspicuous, elongate and rounded papilla with a broad, transverse base is present beyond the symphysis of the premaxillae.

Teeth filiform, with a strongly bent bifid crown. The crown consists of two long tips, the inner one generally slightly larger and roundish, the outer one acute.

Eye dorsally pigmented with a narrow, horizontal margin. Pupil dorsally covered with a dark flap, extending downward from the dark iris.

Colour (fig. 2). — Ground colour of skin dirty-white, and of ossified parts tan. Outer surface of upper lip tan. Papillate parts of the lips, and of the buccal cavity yellowish white. Dorsal, caudal, and pelvic fins with a light distal margin.

Variability. — This is summarized in fig. 3 and in tables IIa and III. The long, erect odontodes on the snout of the lectotype are absent in most specimens examined.

Lasiancistrus brevispinis n. sp.
(Figs. 4-7, 10; tables Ib, IIb-d, III)

Material examined

Surinam, Nickerie River system:

ZMA 107.740, holotype, SL 130.9 mm, district Nickerie, Fallawatra River, rapid 5 km S.W. of Stondansie Fall, width 60 m, bottom sand and rocks, coll. H. Nijssen, 6-IV-1967.

ZMA 106.478 (73), paratypes, same data as the holotype (2 paratypes of this series are deposited in ANSP, BMNH, CAS, FMNH, INPA, IRScNB, MBUCV, MCZ, MHNG, MNHN, MNRJ, and MZUSP). — ZMA 106.477 (38), paratypes, district Nickerie, Stondansie Fall in Nickerie River, width 80 m, bottom sand and rocks,

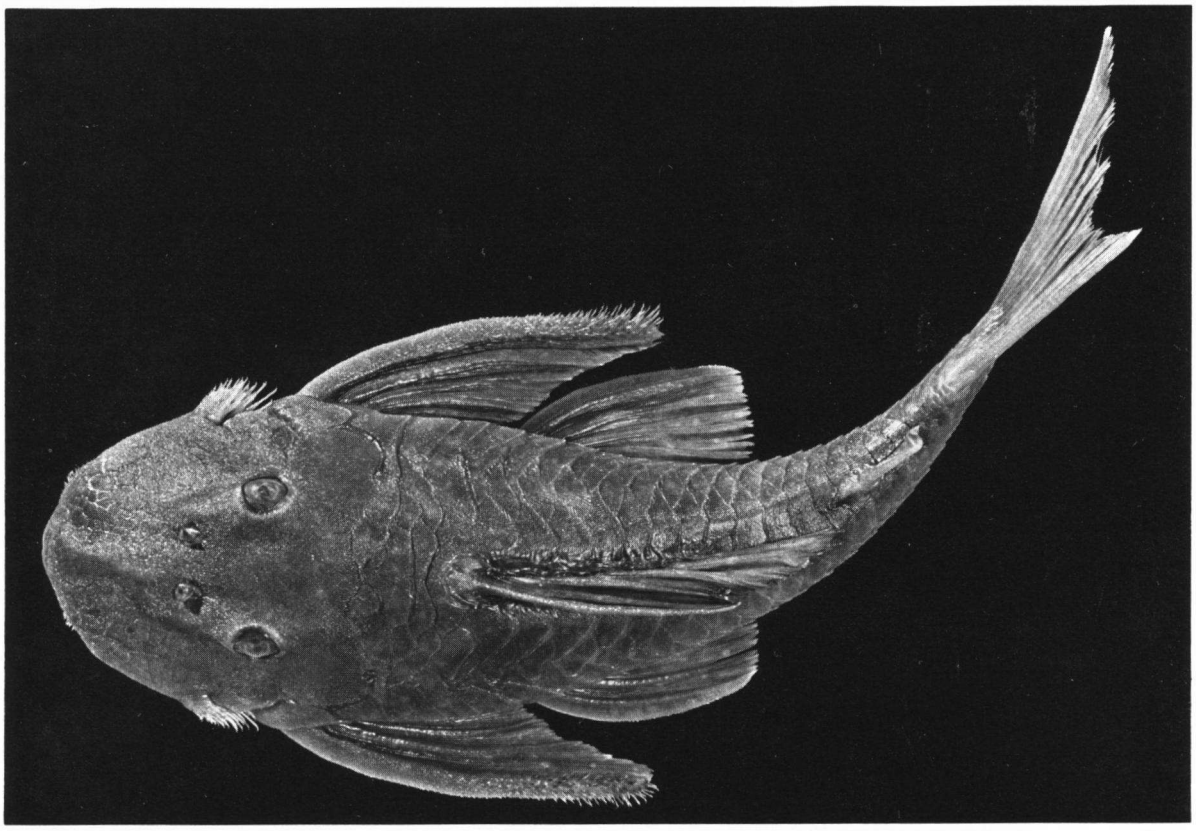

Fig. 3. *Lasiancistrus niger* (Norman, 1926) from the Oyapock River at Clevelandia (ZMA 110.167, SL 145.2 mm).

coll. H. Nijssen, 5-IV-1967 (2 paratypes of this series are deposited in NMW, NRM, RMNH, USNM, ZMB, and ZSM).

Surinam, Coppename River system:
ZMA 106.400 (1), paratype, district Saramacca, creek at right bank of Left Coppename River (03°51'N 56°45'W), depth 20-100 cm, width 5 m, running water, bottom sand, gravel, and stones, coll. H. Nijssen, 10-V-1967.

Surinam, Suriname River system:
ZMA 106.398 (1), paratype, district Brokopondo, Jenjee Creek at right bank of Suriname River, 7.5 km N. of village Botopasi, depth 30-120 cm, width 3 m, running water, bottom sand, coll. H. Nijssen, 21-III-1967. — ZMA 106.397 (16), paratypes, district Brokopondo, Suriname River, rapid, 1 km S. of village Botopasi, coll. H. Nijssen, 22-III-1967. — ZMA 106.399 (1), paratype, district Brokopondo, creek at right bank of Gran Rio, 4 km N.E. of N.E. part of Awadam (= Awaradam) Fall, depth 30-150 cm, width 6 m, running water, bottom sand, coll. H. Nijssen, 31-I-1967.

French Guiana, Maroni (= Marowijne) River system:
IRScNB 626 (3), paratypes, ZMA 107.741 (1), paratype, Maroni River basin, Bois-blanc Creek, at right bank of Inini River, coll. J.-P. Gosse, 16-XI-1969. — IRScNB 627 (15), paratypes, ZMA 107.742 (3), paratypes, Maroni River basin, Ouaqui River at right bank of Tampok River at Saut Bali, coll. J.-P. Gosse, 18-XI-1969.

French Guiana, Oyapock River basin:
IRScNB 628 (2), paratypes, Oyapock River, Saut Alicoto, 12 km S. of Camopi Village, coll. J.-P. Gosse, 4-XII-1969. — MNHN 1981-726 (3), paratypes, ZMA 107.749 (3), paratypes, Oyapock River near Trois Sauts (02°15'N 52°53'W), coll. F. d'Aubenton, 28-IX-1976. — MNHN 1981-730 (2), paratypes, ZMA 107.743 (2), paratypes, Euleupousing Creek, near its confluence (02°17'N 52°52'W) with Oyapock River, coll. F. d'Aubenton, 5/6-X-1976. — MNHN 1981-731 (5), paratypes, ZMA 107.744 (4), paratypes, tributary to Euleupousing Creek, Oyapock River system, coll. F. d'Aubenton, 5/6-X-1976. — MNHN 1981-724 (1), paratype, Armontabo Creek, near its confluence (03°41'N 51°58'W) with Oyapock River, coll. F. d'Aubenton, 22-X-1976. — MNHN 1981-723 (1), paratype, Oyapock River between Camopi (03°12'N 52°20'W) and Trois Sauts (02°15'N 52°53'W) at Saut Moutouci, coll. F. d'Aubenton, 26-IX-1976. — MNHN

TABLE I

Morphometric data of (a) the lectotype of *Lasiancistrus niger* (Norman, 1926), (b) the holotype of *Lasiancistrus brevispinis* n. sp., and (c) the holotype of *Lasiancistrus longispinis* n. sp.

	mm			ratios of SL			ratios of HL		
specimen	a	b	c	a	b	c	a	b	c
mature male	+	+	+						
standard length	159.0	126.3	102.4	159.0	126.3	102.4	159.0	126.3	102.4
axial length	188.2	153.4	124.0	—	—	—	—	—	—
total length	206.0	163.3	132.7	—	—	—	—	—	—
head length	50.4	41.0	36.0	3.2	3.1	2.8	—	—	—
predorsal length	63.0	54.3	44.3	2.5	2.3	2.3	0.8	0.8	0.8
postdorsal length	58.8	39.2	28.9	2.7	3.2	3.5	0.9	1.1	1.3
postanal length	50.6	37.9	30.8	3.1	3.3	3.3	1.0	1.1	1.2
dorsal fin base	37.2	32.8	29.2	4.3	3.9	3.5	1.4	1.3	1.2
interdorsal length	21.4	22.2	11.0	7.4	5.7	9.3	2.4	1.9	3.3
dorsal spine length	41.8	>28.2	26.4	3.8	<4.5	3.9	1.2	<1.5	1.4
anal spine length	10.6	12.9	10.5	15.0	9.8	9.8	4.8	3.2	3.4
anal fin height	14.4	15.8	11.7	11.0	8.0	8.8	3.5	2.6	3.1
pectoral spine length	56.6	43.8	48.2	2.8	2.9	2.1	0.9	0.9	0.8
pelvic spine length	35.6	32.4	26.8	4.5	3.9	3.8	1.4	1.3	1.3
adipose spine length	11.7	10.9	8.2	13.6	11.6	12.5	4.3	3.8	4.4
upper caudal spine	36.8	30.9	>23.2	4.3	4.1	<4.4	1.4	1.3	<1.6
lower caudal spine	>46.8	>37.0	>31.7	<3.4	<3.4	<3.2	<1.1	<1.1	<1.1
snout length	33.3	26.9	21.1	4.8	4.7	4.9	1.5	1.5	1.7
lower lip length	10.4	8.8	6.7	15.3	14.4	15.3	4.9	4.7	5.4
maxillary barbel	2.6	1.7	1.7	61.2	74.3	60.2	19.4	24.1	21.2
maxillary barbel + lip	11.1	8.4	7.9	14.3	15.0	13.0	4.5	4.9	4.6
thoracic length	37.4	29.3	20.0	4.3	4.3	5.1	1.4	1.4	1.8
abdominal length	36.5	30.3	23.9	4.4	4.2	4.3	1.4	1.4	1.5
maximum orbital diameter	8.8	6.2	6.5	18.1	20.4	15.8	5.7	6.6	5.5
interorbital width	15.2	14.2	11.1	10.5	8.9	9.2	3.3	2.9	3.2
cleithral width	49.0	41.3	36.2	3.2	3.1	2.8	1.0	1.0	1.0
supracleithral width	40.1	35.0	31.0	4.0	3.6	3.3	1.3	1.2	1.2
head depth	23.8	22.6	16.4	6.7	5.6	6.2	2.1	1.8	2.2
body depth at dorsal	24.0	25.9	17.0	6.6	4.9	6.0	2.1	1.6	2.1
body width at dorsal	41.6	37.1	29.6	3.8	3.4	3.5	1.2	1.1	1.2
body width at anal	26.2	22.6	17.1	6.1	5.6	6.0	1.9	1.8	2.1
depth caudal peduncle	14.1	13.7	11.4	11.3	9.2	9.0	3.6	3.0	3.2
width caudal peduncle	6.6	6.7	4.7	24.1	18.9	21.8	7.6	6.1	7.7

1981-729 (2), paratypes, ZMA 107.745 (1), paratype, Sikini Creek at Saut Couachimtambe, near confluence (03°15'N 52°16'W) with Oyapock River, coll. F. d'Aubenton, 19-X-1976. — MNHN 1981-727 (1), paratype, upper course of Oyapock River at Saut Pakoussili, coll. F. d'Aubenton, 29-IX-1976. — MNHN 1981-728 (2), paratypes, ZMA 107.746 (1), paratype, Gabaret Creek, near its confluence (03°55'N 51°47'W) with Oyapock River, coll. F. d'Aubenton, 12-XI-1976.

Brazil, Oyapock River system:
IRScNB 629 (1), paratype, Est. Amapá, Oyapock River at Clevelandia, coll. J.-P. Gosse, 5-XII-1962. — MNHN 1981-725 (1), paratype, Est. Amapá, Notaye Creek, near its confluence (03°30'N 52°04'W) with Oyapock River, coll. F. d'Aubenton, 20-X-1976. — ZMA 107.747 (1), paratype, Est. Amapá, Yengalaleu Creek, about 30 km N.E. of Trois Sauts (02°15'N 52°53'W), coll. F. d'Aubenton, 10-X-1976.

Description

Morphometric data of the holotype are given in table Ib.

The holotype was directly compared with the lectotype of *Lasiancistrus niger*, described above. Differences are noted only.

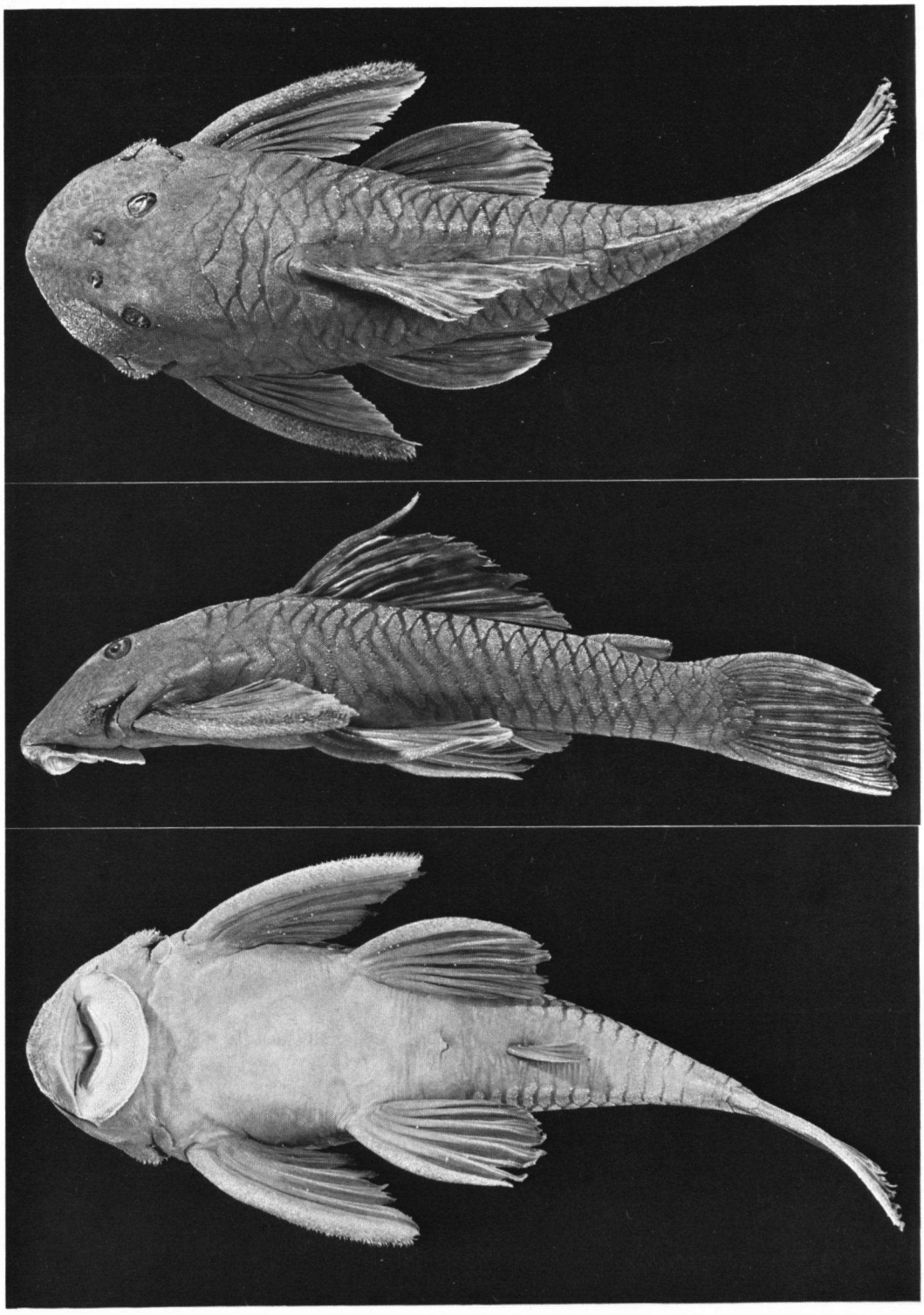

Fig. 4. *Lasiancistrus brevispinis* n. sp., holotype (male) in dorsal, lateral, and ventral view.

TABLE II

Selected morphometric data of (a) *Lasiancistrus niger* (Norman, 1926), (b-d) *Lasiancistrus brevispinis* n. sp., and (e) *Lasiancistrus longispinis* n. sp.:

(a) specimens from the Oyapock River system: ZMA 110.167, ZMA 115.297, ZMA 115.298 (largest); ZMA 115.300, MNHN 1982-853 (largest), MNHN 1982-854, and MNHN 1982-855;
(b) specimens from the Nickerie River system: ZMA 106.478;
(c) specimens from the Suriname River system: ZMA 106.397 (3), ZMA 106.398, ZMA 106.399;
(d) specimens from the Oyapock River system: ZMA 107.743, ZMA 107.744 (largest), ZMA 107.746, and ZMA 107.749 (2);
(e) specimens from the Oyapock River system: ZMA 107.748, ZMA 115.306 (largest), ZMA 115.308, ZMA 115.309, and MNHN 1982-851.

	L. niger	*L. brevispinis*			*L. longispinis*
specimens	a	b	c	d	e
number of specimens	7	6	5	6	6
SL in mm	113.7-165.0	109.3-127.7	93.2-108.5	97.4-134.2	78.2-97.3
SL/head length	2.9-3.1	3.0-3.2	3.1-3.2	3.0-3.4	2.9-3.1
SL/predorsal length	2.3-2.5	2.3-2.5	2.4-2.5	2.4-2.6	2.4-2.5
SL/postanal length	3.1-3.4	3.2-3.4	3.2-3.5	3.1-3.3	3.2-3.4
SL/dorsal fin base	4.1-4.6	4.1-4.4	3.8-4.3	4.1-4.6	3.7-4.1
SL/interdorsal length	7.7-8.5	6.8-8.3	6.7-8.6	6.7-7.4	8.9-11.2
SL/dorsal spine length	3.6-4.0	3.6-4.0	4.0-4.4	4.1-4.4	3.6-4.0
SL/pectoral spine length	2.2-2.7	3.0-3.3	3.2-3.5	3.2-3.9	2.4-3.0
SL/pelvic spine length	4.0-4.2	3.8-4.2	4.1-4.2	4.0-4.5	3.8-4.3
HL/snout length	1.5-1.6	1.6	1.5-1.6	1.5-1.6	1.7-1.8
HL/maximum orbital diameter	5.3-6.2	5.6-6.5	5.5-5.8	5.8-6.2	5.0-5.3
HL/interorbital width	3.1-3.6	2.6-3.1	3.0-3.2	2.7-3.4	3.1-3.4
HL/cleithral width	1.0-1.1	1.0	1.0-1.1	1.0-1.1	1.0-1.1
HL/head depth	2.1-2.3	1.8-2.0	2.0-2.4	2.1-2.3	2.2-2.3

Counts. — Lateral body scutes 25. Small scutelets on the caudal fin base 10/9 in vertical series. Predorsal scutes 5: the medium scutelet in front of the procurrent dorsal fin spinule (which in *L. niger* is tightly fused with two scutes at either side) is separate, bending halfway around the procurrent spinule. Along the dorsal fin base 7 scutes.

Caudal fin ray counts as in *L. niger*, except for 6 rather than 5 procurrent spinules.

Along the base of the adipose fin membrane $2^1/_2$ scutes.

Premaxillae with (left/right) 67/66 teeth. Dentaries with 74 teeth in either half. Teeth in a crowded (double) series.

Shape and structure (fig. 4). — Supraorbital rim hardly raised.

Margin of the scutes with a broader naked area than in *L. niger*.

The odontodes on the pectoral fin spine are shorter than in *L. niger*; they increase in length much nearer to the proximal base of the spine. Inner margin of pectoral fin spine dorsally with odontodes similar to those on the dorsum and outer margin.

The anterolateral margin of the snout with some erect odontodes, slightly longer than the remaining odontodes on the dorsum of the snout. The dorsolateral margin of the upper lip has an ill-defined area covered with widely scattered, erect, and relatively prominent odontodes (much shorter than in *L. niger*).

Supraorbital rim with scattered, rounded odontodes, which extend towards the nostril.

Interopercular odontodes (fig. 7) much shorter and fewer than in *L. niger*.

Lateral line as in *L. niger*, reaching to the 15th lateral body scute.

Fig. 5. *Lasiancistrus brevispinis* n. sp., paratype (female) from the Oyapock River (IRScNB 629, SL 121.0 mm), in dorsal, lateral, and ventral view.

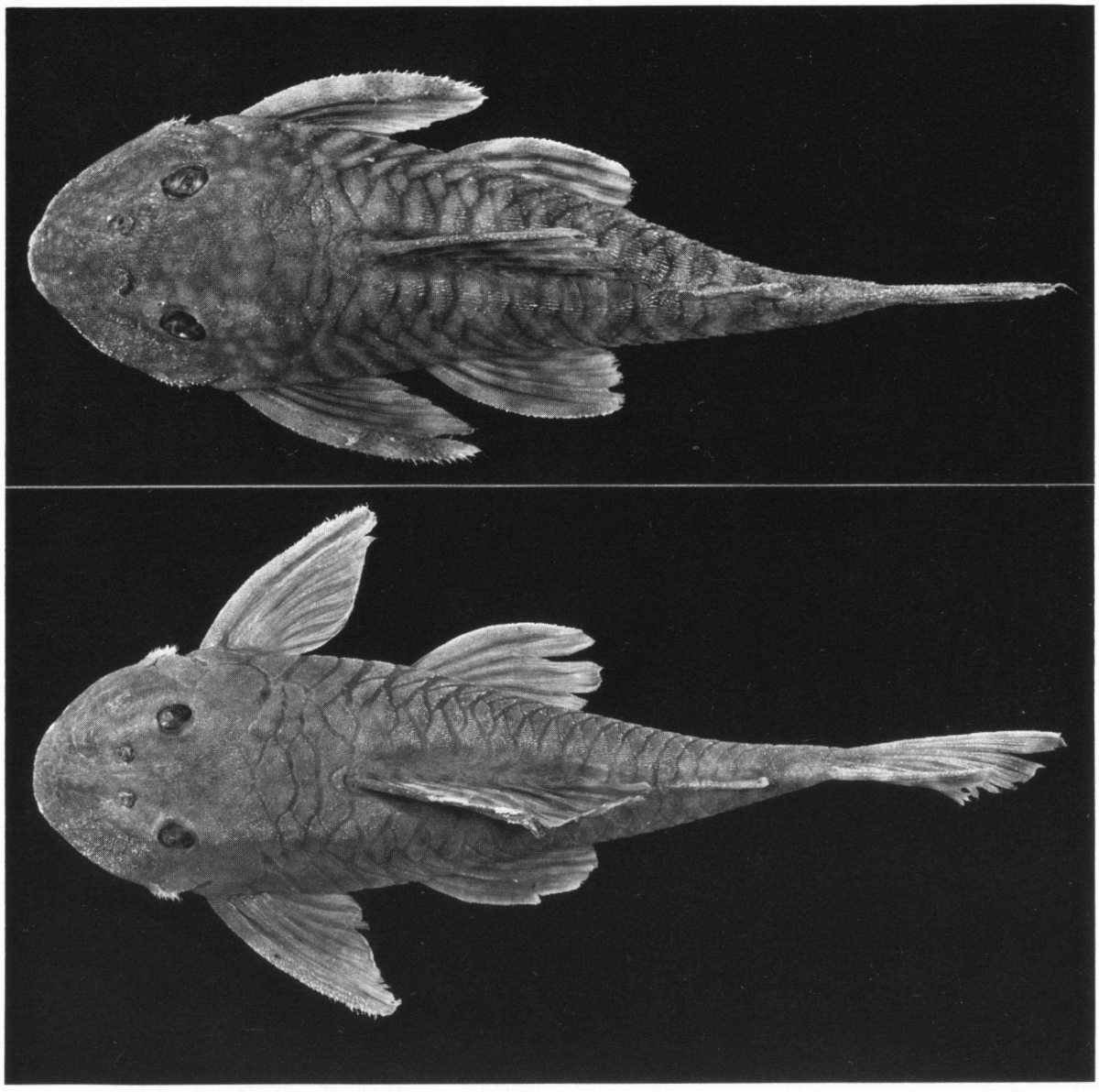

Fig. 6. *Lasiancistrus brevispinis* n. sp., paratype from Stondansie Fall (above; ZMA 106.477, SL 56.0 mm), and from Gran Rio (below; ZMA 106.399, SL 102.0 mm).

Fig. 7. *Lasiancistrus brevispinis* n. sp., interopercular odontodes, with enlarged detail.

Operculum larger than in *L. niger*, with a convex ventral margin, provided with thorn-like odontodes.

The maxillary barbel is connected to the lower lip by a minute membranous flap.

A small, tongue-like papilla with a broad transverse base is present beyond the symphysis of the premaxillae.

Colour (fig. 4). — Ground colour of the skin of the ventral part of body and head tan, and of ossified parts brown. Outer surface of upper lip greyish brown. Papillate parts of the lips, and of the buccal cavity, yellowish white.

Dorsum and sides of body and head with small, ill-defined light and dark dots. Dorsal fin greyish, the rays with some large, ill-defined brown dots, sometimes extending anteriorly to the membrane. Caudal fin with about 5 ill-defined series of dark dots, forming vertical rows. Dorsum of pectoral and pelvic fins greyish, the latter with some faint, dark concentrations of pigment. Anal fin greyish.

Variability. — This is summarized in figs. 5-6 and in tables IIb-d and III.

Etymology. — The specific name *brevispinis* is derived from the Latin *brevis* meaning short, and *spina* meaning thorn, alluding to the short evertible interopercular odontodes.

Lasiancistrus longispinis n. sp.
(Figs. 8-10; tables Ic, IIe, III)

Material examined

French Guiana, Oyapock River system:
IRScNB 612, holotype, SL 104.4 mm, Camopi River at Pauwé Jean-Jean, upstream of Saut Mauvais (03°11'N 52°22'W), coll. J.-P. Gosse, 30-XI-1969. — IRScNB 613 (6), paratypes, ZMA 115.306 (2), paratypes, same data as the holotype. — IRScNB 614 (2), paratypes, Camopi River at Polydor, coll. J.-P. Gosse, 30-XI-1969. — IRScNB 615 (1), paratype, Alikene Creek at left bank of Camopi River, coll. J.-P. Gosse, 1-XII-1969. — MNHN 1979-162 (1), paratype, upper course of Oyapock River at Saut Pakoussili, coll. P. Grenand, 9-VIII-1976. — MNHN 1979-158 (1), paratype, MNHN 1979-163 (1), paratype, upper course of Oyapock River near Trois Sauts (02°15'N 52°53'W), coll. F. d'Aubenton, 28-IX-1976. — MNHN 1979-160 (1), paratype, Oyapock River between Camopi (03°12'N 52°20'W) and Trois Sauts at Saut Moutouci, coll. F. d'Aubenton, 26-IX-1976. — MNHN 1979-159 (1), paratype, ZMA 115.309 (2), paratypes, Oyapock River at Saut Pakoussili, 5 km N.E. of Trois Sauts, coll. F. d'Aubenton, 29-IX-1976. — MNHN 1979-161 (1), paratype, ZMA 115.308 (1), paratype, Sikini Creek at Saut Couachimtambe, near confluence (03°15'N 52°16'W) with Oyapock River, coll. F. d'Aubenton, 19-X-1976. — MNHN 1982-852 (1), paratype, Euleupousing Creek, near its confluence (02°17'N 52°52'W) with Oyapock River, coll. F. d'Aubenton, 6-X-1976. — MNHN 1982-851 (1), paratype, ZMA 107.748 (1), paratype, Yaloupi River, near its confluence (02°47'N 52°29'W) with Oyapock River, coll. F. d'Aubenton, 13-X-1976.

Brazil, Oyapock River system:
IRScNB 616 (12), paratypes, ZMA 115.307 (3), paratypes, Est. Amapá, Pontanari River, at right bank of Oyapock River, downstream of Clevelandia, coll. J.-P. Gosse, 6-XII-1962.

Description

Morphometric data of the holotype are given in table Ic.

The holotype was directly compared with the lectotype of *L. niger* and with the holotype of *L. brevispinis*, described above. Differences are noted only.

Counts. — Lateral body scutes 25. Small scutelets on the caudal fin base 9/10 in vertical series. Between the last dorsal fin ray and the base of the adipose fin spine 5 scutes. Along the anal fin base 1 scute. Along the base of the adipose fin membrane 2 scutes.

Premaxillae with 64/58 teeth. Dentaries with 66/61 teeth. Teeth in a crowded (double) series.

Shape and structure (fig. 8). — Margin of snout almost entirely covered with dermal ossifications bearing odontodes, with a small, median naked notch. Supraorbital rim not raised.

The ventral side of the caudal peduncle is covered with odontodes, except between the anus and the origin of the anal fin, and around the anal fin base.

Longitudinal keel on the posterior ventrolateral scutes absent.

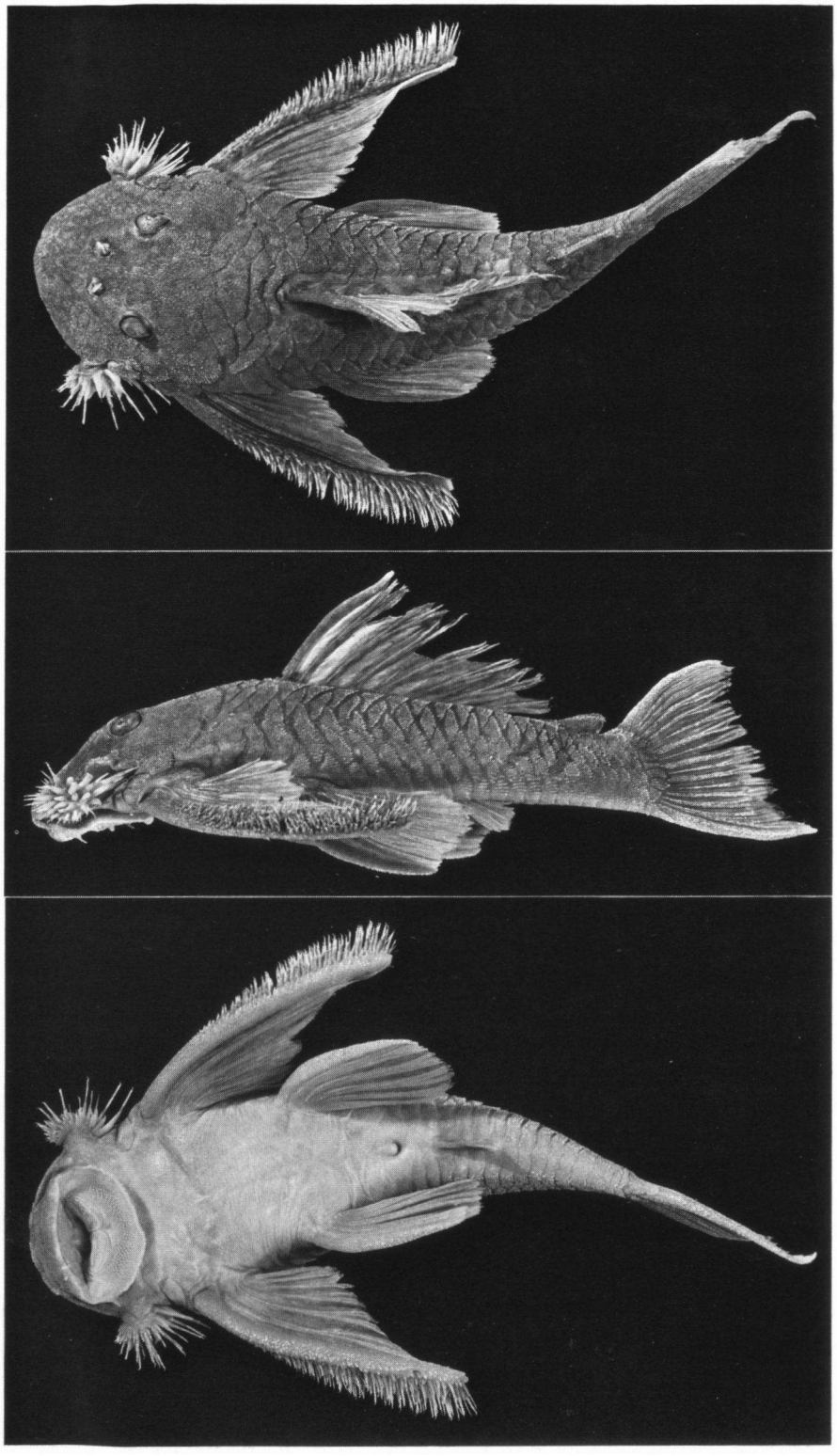

Fig. 8. *Lasiancistrus longispinis* n. sp., holotype in dorsal, lateral, and ventral view.

Long odontodes on the pectoral fin spine commence nearer to the proximal base and are much longer than in *L. niger* and in *L. brevispinis*. Inner margin of pectoral fin spine dorsally as in *L. brevispinis*.

Dermal ossifications (covered with odontodes) of tip of snout extending on the dorsolateral margin of the upper lip, forming a narrow, distally acute strip. The odontodes in this area are a little longer than the remaining odontodes.

Interopercular area with many, long evertible odontodes (figs. 8-9).

Adipose fin membrane convex. Caudal fin truncate, the lower rays gradually longer than the upper rays. Pectoral fin slightly concave. Pelvic fin convex.

Fig. 9. *Lasiancistrus longispinis* n. sp., interopercular odontodes, with enlarged detail.

Lateral line as in *L. niger*, reaching to the 15th lateral body scute.

Posterior outer margin of upper lip with a large number of tiny papillae, forming a transverse series which continues on the inner surface. Posterior margin of lower lip with tiny, fringe-like papillae. The minute, produced part of the maxillary barbel posteriorly free from the lower lip.

A small, acute protuberance with a broad transverse base is present in front of the upper oral valve membrane, beyond the symphysis of the premaxillae.

Colour (fig. 8). — Ground colour of skin tan, and of ossified parts greyish. Dorsum of body anterior to dorsal fin origin, and of head and snout with faint, pale spots, about a quarter the size of the eye. Fins without markings.

Variability. — This is summarized in tables IIe and III.

Etymology. — The specific name *longispinis* is derived from the Latin *longus* meaning long, and *spina* meaning thorn, an allusion to the long evertible interopercular odontodes.

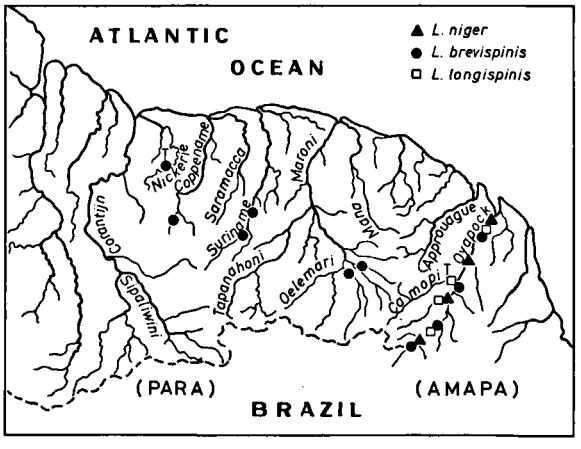

Fig. 10. Distribution of the *Lasiancistrus* species in French Guiana and Surinam. T indicates the type-locality.

TABLE III

Comparison of some characters of *Lasiancistrus niger* (Norman, 1926), *Lasiancistrus brevispinis* n. sp., and *Lasiancistrus longispinis* n. sp.

	L. niger	*L. brevispinis*	*L. longispinis*
tip of snout	with naked area	with naked area	with dermal ossifications
margin of snout in adults	with conspicuous odontodes	with minute odontodes	with minute odontodes
orbital rim	raised	hardly raised	not raised
margin of supraoccipital	well visible	hardly visible	well visible
supraoccipital-temporal margin	not fused	fused	not fused
interopercular odontodes	sometimes reaching pectoral spine	never reaching pectoral spine	always reaching pectoral spine
tip of maxillary barbel	not reaching interopercular odontodes	not reaching interopercular odontodes	reaching interopercular odontodes
dorsal fin	reaching preadipose scute	not reaching preadipose scute	reaching preadipose scute
median area of caudal peduncle just beyond anal fin	generally smooth	generally smooth	course, with odontodes
caudal fin	slightly emarginate	slightly emarginate or truncate	truncate
colour of body in adults	uniform	marbled	with small light spots
colour of body in juveniles	with small light spots	marbled	with small light spots
colour of dorsal fin	uniform	with dark spots	uniform
colour of caudal fin	uniform	with dark bars	uniform

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Received: 30 September 1982