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628

Pseudancistrus sidereus, a new species from southern Venezuela (Siluriformes: Loricariidae) with a redescription of *Pseudancistrus*

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Abstract

Pseudancistrus sidereus is described from two collections of specimens from Amazonas, Venezuela. *Pseudancistrus sidereus* differs from all other members of *Pseudancistrus* based on the presence of a unique keel on the caudal peduncle formed from the concave dorsal sections of the plates in the ventral series, light spots on the body (these may be yellow in life) centered on the body plates and the absence of the characteristics of the more derived members of *Pseudancistrus* such as hypertrophied odontodes along the snout in males and females and the loss of evertibility of the cheek plates. *Pseudancistrus* includes *Lithoxancistrus* and *Guyanancistrus* and is diagnosed by the following synapomorphies: no suture between pterotic-supracleithrum and hyomandibula, no contact of the hyomandibula with the prootic, straight, spoon-shaped anterior process of metapterygoid, nasal bone not much wider than laterosensory canal running through it, sphenotic not contacting posteriormost infraorbital externally, and a short ventral ridge on the pelvic basipterygium (lost in some species). Two species formerly assigned to *Guyanancistrus* are placed in different genera. *Hypostomus guacharote* is placed in *Lasiancistrus* and *Chaetostomus trinitatis* is placed in *Ancistrus*.

Resumen

Se describe *Pseudancistrus sidereus*, con base en dos colectas de especímenes del Amazonas venezolano. *Pseudancistrus sidereus* difiere de los otros miembros del género *Pseudancistrus* por la presencia de una quilla única en el pedúnculo caudal formada a partir de las secciones cóncavas dorsales de las placas de la serie ventral, puntos blancos en el cuerpo (probablemente amarillos en vida) centrados en las placas corporales y la ausencia de ciertas características presentes en los miembros más derivados de *Pseudancistrus*, como odontodos hiperatrofiados a lo largo del rostro en machos y hembras y la perdida de evertibilidad de las placas de la mejilla. *Pseudancistrus* incluye a *Lithoxancistrus* y *Guyanancistrus* y se diagnostica por las siguientes sinapomorfías: sutura entre el pterótico-supracleitro y la hiomandíbula ausente, hiomandíbula y proótico sin contacto, proceso anterior del metapterigoides recto y en forma de cuchara, hueso nasal apenas m·s amplio que el canal laterosensorial que corre a través del mismo, esfenótico sin contacto externo

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con la porcion más posterior del infraorbital, y una pequeña cresta ventral presente en el basipterigio pélvico (condición perdida en algunas especies). Dos especies previamente asignadas a *Guyanancistrus* se ubican en géneros diferentes. *Hypostomus guacharote* se ubica en *Lasiancistrus* y *Chaetostomus trinitatis* se ubica en *Ancistrus*.

Keywords: Ancistrini, Hypostominae, South America, suckermouth armored catfish, Venezuela

Introduction

Pseudancistrus is a medium-sized genus (14 species) of the Loricariidae and is a member of the tribe Ancistrini of the Hypostominae (Armbruster 2004). Bleeker (1862) described *Pseudancistrus* and separated it from all other members of his Plecostomiformes (=Hypostominae) except *Plecostomus* (= *Hypostomus*) based on the inability to evert the cheek plates but with the presence of hypertrophied cheek odontodes. Isbrücker (1980) retained *Pseudancistrus* as close to *Hypostomus* and placed the two genera in a more restrictive Hypostominae, but Schaefer (1986; 1987) found that *Pseudancistrus* shared a modified bar- or sickle-shaped opercle with the Ancistrinae (now Ancistrini).

Pseudancistrus is also known for the presence of sometimes extremely hypertrophied odontodes along the snout (Burgess 1989). Male and female *Pseudancistrus barbatus* were pictured in Darwin (1882), and Darwin stated that the male had very hypertrophied odontodes on the snout and they were barely present in females; however, females do develop hypertrophied odontodes in *Pseudancistrus* species with hypertrophied snout odontodes (Armbruster and Provenzano 2000), although they may not be as long as in males (pers. obs.). Several species appear to lack hypertrophied snout odontodes (*P. brevispinis, P. megacephalus*, and the species described herein as *P. sidereus*; pers. obs.), and hypertrophied snout odontodes are also found in numerous members of the Ancistrini (*Dolichancistrus* and *Lasiancistrus* for example) as well as many other members of the Loricariidae. However, the presence of hypertrophied snout odontodes is useful in identifying many *Pseudancistrus* because they are present in the species that have them regardless of season or sex, and they develop fairly early in ontogeny (pers. obs.).

Isbrücker et al. (1988) described *Lithoxancistrus orinoco* as a new genus and species based on the derived presence of large papillae located behind each dentary. Isbrücker et al. (2001) described *Guyanancistrus* for several species that were formerly placed in *Lasiancistrus* (Isbrücker 1980; Heitmans et al. 1983). The diagnosis of *Guyanancistrus* in Isbrücker et al. (2001) was brief, and only stated that the species lack the characteristic odontodes of *Lasiancistrus* (apparently referring to the whiskerlike odontodes of Armbruster 2004); and no characteristics were given to unite the species of *Guyanancistrus*. The species of *Guyanancistrus* further lack other synapomorphies for *Lasiancistrus*, and are not closely related to *Lasiancistrus* (Armbruster 2004). Armbruster (2004) found that the species of *Pseudancistrus, Lithoxancistrus, Guyanancistrus, Hemiancistrus mega-*

cephalus, and the species described herein as *P. sidereus* form a well-diagnosed (decay index = 5), monophyletic clade. Armbruster (2004) placed *Lithoxancistrus* and *Guyanancistrus* into the synonymy of *Pseudancistrus* and transfered *Hemiancistrus megacephalus* to *Pseudancistrus*.

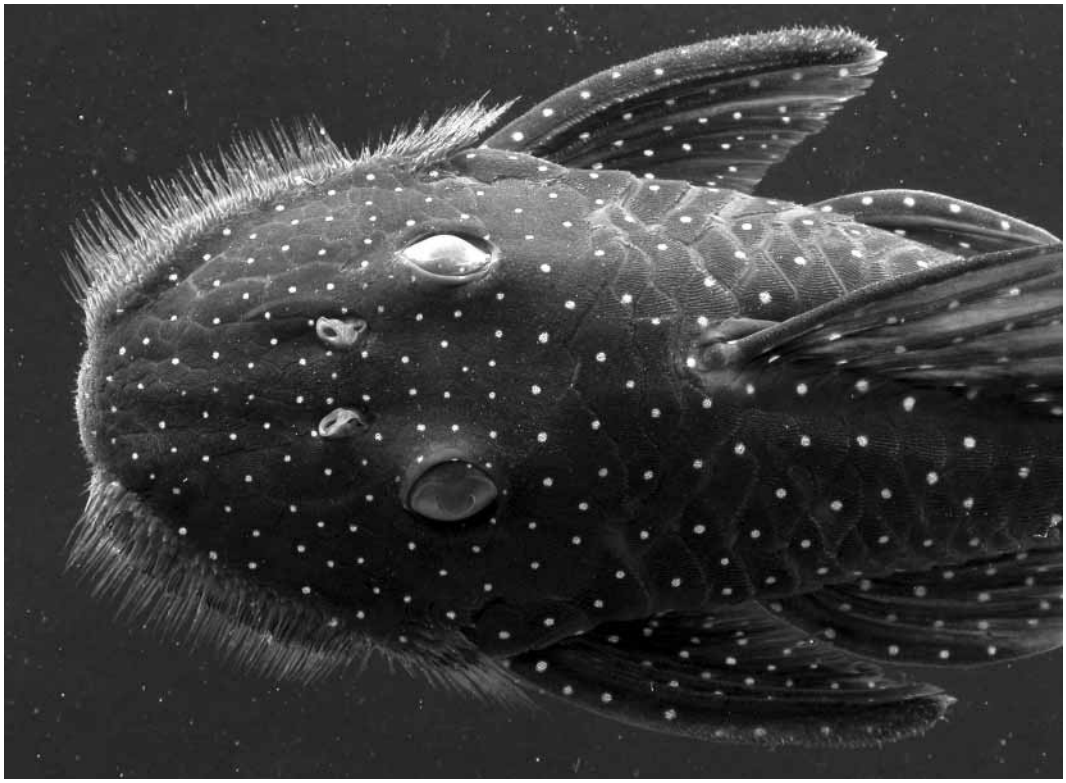

FIGURE 1. *Pseudancistrus barbatus* showing extreme development of the hypertrophied snout odontodes, AUM 38023, 126.6 mm SL. Photo by M.H. Sabaj.

Pseudancistrus sidereus, new species, can be considered a basal member of *Pseudancistrus* based on its lack of the features of more derived members of the genus such as hypertrophied odontodes along the snout (Fig. 1) and loss of the evertible cheek plates, and its placement was in a basal polytomy with *P. brevispinis*, *P. megacephalus*, and the remainder of *Pseudancistrus* in Armbruster (2004). *Pseudancistrus sidereus* has a unique ridge on the caudal peduncle formed from the concave dorsal sections of the ventral row plates and a fairly uncommon color pattern of white to gold spots. *Pseudancistrus sidereus* is found only in the southern Venezuelan state of Amazonas, and is described herein. *Pseudancistrus* is also diagnosed and redescribed.

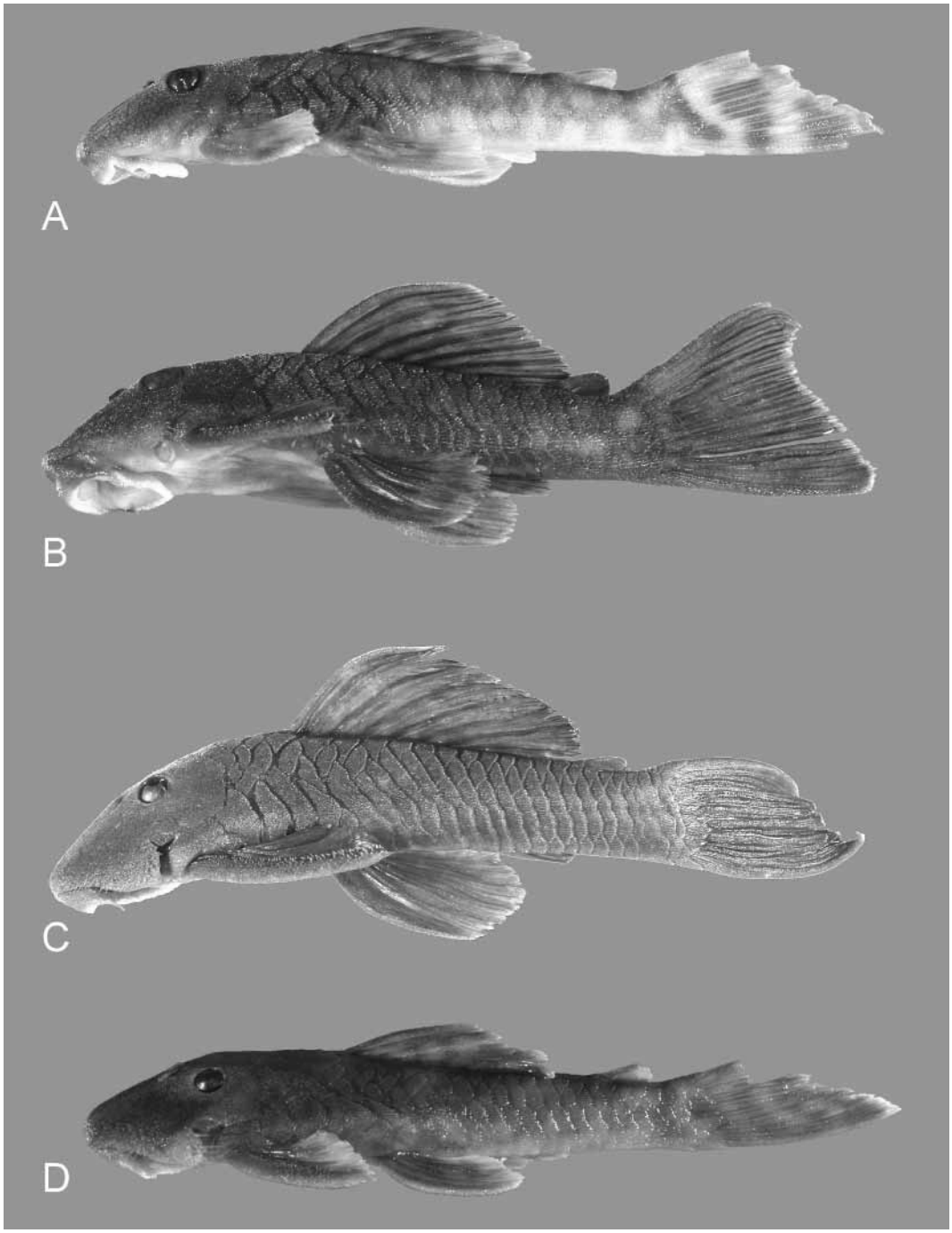

FIGURE 2. Representative examples of *Pseudancistrus*: A. *P. brevispinis* NRM 32374, 49.6 mm SL, B. *Pseudancistrus* sp., AUM 36409, 54.4 mm SL, C. *P. nigrescens* AUM 35741, 133.8 mm SL, D. *P. orinoco* AMNH 91023, 62.5 mm SL. Photos by J.W. Armbruster.

Methods

Counts and measurements follow Armbruster (2003). Character numbers and states are from Armbruster (2004) and are presented in parentheses. One specimen of *Pseudancistrus sidereus* was cleared and stained for examination of bone and cartilage using the methods of Taylor and Van Dyke (1985). *Pseudancistrus sidereus* was referred to as *Pseudancistrus* gold spot in Armbruster (2004). Institutional abbreviations are as in Leviton et al. (1985). Comparative specimens of other loricariids examined are listed in Armbruster (2004). Localities are given as Country, State, drainage, catalog number, number of individuals examined, SL, locality, latitude and longitude, collectors, date. The following abbreviations are used in the text: cs. = cleared and stained, D. = distance, Dia. = diameter, Dp. = depth, dr. = drainage, L. = length, W = width.

Pseudancistrus Bleeker 1862

Figs. 1–2

Type Species: *Hypostomus barbatus* Valenciennes 1840

Synonyms:

Lithoxancistrus Isbrücker, Nijssen, and Cala 1988
Guyanancistrus Isbrücker 2001

Includes:

P. barbatus (Valenciennes 1840)
P. brevispinis (Heitmans, Nijssen, and Isbrücker 1983)
P. coquenani (Steindachner 1915)
P. depressus (Günther 1868)
P. genisetiger Fowler 1941
P. guentheri (Regan 1904)
P. guttatus (Valenciennes 1840), synonym of *P. barbatus* (see Fisch-Muller 2003)
P. longispinis (Heitmans, Nijssen, and Isbrücker 1983)
P. niger (Norman 1926)
P. nigrescens Eigenmann 1912
P. orinoco (Isbrücker, Nijssen and Cala 1988)
P. papariae Fowler 1941
P. schomburgkii (Günther 1864)
P. sidereus new species

Diagnosis: *Pseudancistrus* is not diagnosed by any unique characteristics. Characteristics considered as synapomorphies for *Pseudancistrus* from Armbruster (2004) are: no suture between pterotic-supracleithrum and hyomandibula (34-0, reversal), no contact of the hyomandibula with the prootic (35-1), straight, spoon-shaped anterior process of metapterygoid (58-1), nasal bone not much wider than laterosensory canal running through it (105-

0), sphenotic not contacting posteriormost infraorbital externally (117-1), and a short ventral ridge on the pelvic basipterygium (172-1, lost in some species).

Pseudancistrus can be separated from the Corymbophanini and the Hypostomini by having hypertrophied odontodes on the cheek; from most of the Rhinelepini by having an adipose fin and a dorsal flap of the iris and from *Pogonopoma wertheimeri* by having few or no plates on the abdomen (vs. abdomen fully plated); and from the Pterygoplichthini by lacking an enlarged, respiratory stomach and by lacking or nearly lacking plates on the abdomen (vs. abdomen fully plated in adults), and from *Pterygoplichthys* by having seven dorsal-fin rays (vs. nine or more).

Within the Ancistrini, *Pseudancistrus* can be separated from *Ancistrus, Dekeyseria, Exastilithoxus, Hopliancistrus, Lasiancistrus,* most *Lithoxus, Neblinichthys,* and *Pseudolithoxus* by having 4–5 plate rows on the caudal peduncle (vs. 3); from *Baryancistrus, Spectracanthicus,* and *Parancistrus* by not having a membranous connection of the posterior end of the dorsal fin with the adipose fin; from some *Hemiancistrus, Hypancistrus, Panaque,* and *Peckoltia* by having 10+ odontodes on the opercle (vs. usually 0, but up to 10, odontodes); from *Acanthicus, Leporacanthicus, Megalancistrus,* and *Pseudacanthicus* by lacking hypertrophied keel odontodes on the lateral plates; from *Ancistrus* and *Chaetostoma* by having plates on the edge of the snout; and from *Chaetostoma, Cordylancistrus, Dolichancistrus,* and *Leptoancistrus* by having the spinelet and the nuchal plate of the dorsal fin supporting odontodes (vs. skin covering the spinelet and nuchal plate in all but adult male *Dolichancistrus*).

Pseudancistrus can be separated from the Neopleostominae, *Hemipsilichthys*, and most of the Hypoptopomatinae by having a *V*-shaped dorsal-fin spinelet (vs. dorsal-fin spinelet rectangular or absent); from all of the Hyopotopomatinae by lacking odontodes on the ventral surface of the pectoral girdle; from the Loricariinae by having four or five rows of plates on the caudal peduncle (vs. three) and by having an adipose fin; and from *Delturus* and *Hemipsilichthys* (a new subfamily; Armbruster 2004) by having a single (rarely two) median, preadipose plates (vs. three or more).

Description: Member of subfamily Hypostominae, tribe Ancistrini as diagnosed by Armbruster (2004). Small to large loricariids. Ventral surface from anus to head largely naked in adults. Lateral plates unkeeled except ventral plate bent to form keel-like ridge on caudal peduncle, inframedian plate row bent from pectoral-spine insertion to above pelvic fin forming ridge, and dorsal plate row bent, forming ridge from insertion of dorsal-fin spine to posterior end of adipose-fin spine (ridges on either side converging at posterior end of adipose-fin spine). Cheek plates with numerous hypertrophied odontodes, longest odontode reaching almost to posterior edge of cleithral process; cheek odontodes and supporting plates evertible at an angle greater than 75° from head primitively although advanced species may not have evertible cheek plates, 15–60 evertible cheek odontodes. Frontal, infraorbitals, nasal, opercle, preopercle (in some species), pterotic-supracleithrum, and suprapreopercle supporting odontodes.

TABLE 1. Selected morphometrics of *Pseudancistrus sidereus*. Landmarks represent the two landmarks the measurement is between (see Armbruster 2003). Measurements are ratios of SL (predorsal l. to pelvic-dorsal l.) or head l. (head-eye l. to premaxillary tooth cup l.).

Landmarks	Measurement	N	Average	SD	Range
1–20	SL (mm)	7	162.0	15.5	148.7 – 183.0
1–10	Predorsal L.	7	38.2	0.4	37.9 – 39.0
1–7	Head L. (HL)	7	30.8	0.3	30.3 – 31.3
7–10	Head-dorsal L.	7	7.5	0.5	6.9 – 8.3
8–9	Cleithral W.	7	25.6	0.3	25.1 – 26.0
1–12	Head-pectoral L.	7	25.7	0.7	24.4 – 26.6
12–13	Thorax L.	7	22.3	1.1	20.3 – 23.5
12–29	Pectoral-spine L.	7	28.6	1.6	27.4 – 32.1
13–14	Abdominal L.	7	22.7	0.8	21.4 – 23.7
13–30	Pelvic-spine L.	7	23.5	0.9	22.4 – 24.8
14–15	Postanal L.	7	36.2	1.0	34.5 – 37.1
14–31	Anal-fin spine L.	7	8.7	0.9	7.4 – 10.4
10–12	Dorsal-pectoral D.	7	23.4	0.5	22.9 – 24.1
10–11	Dorsal spine L.	7	32.6	2.4	29.2 – 35.7
10–13	Dorsal-pelvic D.	7	20.2	0.8	19.0 – 21.1
10–16	Dorsal-fin base L.	7	26.5	0.9	25.7 – 28.4
16–17	Dorsal-adipose D.	7	18.2	0.9	16.7 – 19.5
17–18	Adipose-spine L.	7	8.5	1.1	6.3 – 9.5
17–19	Dorsal adipose-caudal D.	7	13.0	1.1	11.9 – 14.9
15–19	Caudal peduncle Dp.	7	8.6	0.2	8.2 – 8.8
15–17	Ventral adipose-caudal D.	7	20.7	0.5	20.1 – 21.3
14–17	Adipose-anal D.	7	21.0	0.6	19.9 – 21.7
14–16	Dorsal-anal D.	7	12.7	0.3	12.3 – 13.2
13–16	Pelvic-dorsal D.	7	24.8	0.9	24.0 – 26.2
5–7	Head-eye L.	7	8.7	0.3	8.3 – 9.2
4–5	Orbit Dia.	7	5.2	0.3	4.7 – 5.6
1–4	Snout L.	7	20.7	0.8	19.7 – 21.7
2–3	Internares W.	7	3.3	0.3	3.0 – 4.0
5–6	Interorbital W.	7	11.4	0.8	10.7 – 12.6
7–12	Head Dp.	7	19.4	0.2	19.1 – 19.7
1–24	Mouth L.	7	16.8	0.6	15.7 – 17.9
21–22	Mouth W.	7	20.3	0.6	19.4 – 21.1
22–23	Barbel L.	7	2.2	0.2	1.8 – 2.4
25–26	Dentary tooth cup L.	7	7.1	0.4	6.5 – 7.6
27–28	Premaxillary tooth cup L.	7	6.9	0.5	6.2 – 7.6

Caudal fin emarginate to forked, lower lobe longer than upper. Lower surface flat. Head moderate in length with horizontal distance between anterior of eye and tip of snout long. Head dorsoventrally flattened. Body depth increasing slowly, in broad arc from tip of snout to insertion of dorsal fin. Body depth decreases very little to dorsal procurrent caudal-fin spines; body depth increases slightly from posterior adipose-fin insertion to insertion of upper caudal-fin spine. Dorsal surface of head between eyes moderately concave. Supraoccipital crest not raised, posterior edge of supraoccipital rounded. Eye large (Table 1) with well-developed dorsal flap of iris. Gill opening restricted.

Dorsal-fin spine short (table 1); dorsal fin reaching posterior edge of preadipose plate when depressed in all species except *Pseudancistrus sidereus* where the dorsal fin does not reach preadipose plate. Depressed pectoral-fin spine reaching beyond base of pelvic-fin rays; depressed pelvic-fin spine typically reaching anterior insertion of anal fin (sometimes slightly beyond). Dorsal fin II7, caudal fin I14I, anal fin I4–5, pectoral fin I6, pelvic fin I5.

Lips papillose, forming oval disk about as wide as head. Maxillary barbel short, thin, and pointed. Buccal papilla short, narrow. Teeth long, thin with pointed cusps, lateral cusp about half length of medial cusp, 45–89 dentary teeth, 38–94 premaxillary teeth.

Color: Generally dark gray, lighter on abdomen. Some species with light spots or blotches on the sides. Some species with the body mottled gray or brown. Fins generally colored as sides, but some species with bands in the caudal fin, or with orange to red edging on the dorsal and/or caudal fins.

Sexual Dimorphism: Most species with hypertrophied odontodes along the snout in both males and females, but males generally with longer snout odontodes. *Pseudancistrus sidereus* may have hypertrophied odontodes on the lateral plates (see description below). Some specimens with hypertrophied odontodes on tip of pectoral spine, but it is unknown if these are dimorphic.

Ecology: Found in swift flow among gravel, cobble, and boulders.

Range: Found around the Guyana Shield in the Guyanas, Venezuela, and Brazil. Also found in northeastern Brazil in the Rio Jaguaribe and Rio Grande do Norte.

***Pseudancistrus sidereus* new species**
Fig. 3

Holotype: VENEZUELA, Amazonas, Ro Orinoco dr.: MCNG 26125, 175.6, Río Siapa from 10 to 15 km downstream, Río Casiquiare – Río Negro dr., 01.50000°, -065.71667°, ABD and F. Morillo, 20 April 1991.

Paratypes. VENEZUELA, Amazonas, Río Orinoco dr.: MCNG 48261, 1, 1CS, 149.8, AUM 37562, 1, 148.7, same data as holotype. FMNH 105294, 4, 149.5-176.7, Río Orinoco ca. 5 h above Atabapo by falca; at rocks and beach, B. Chernoff, A. and D. Machado, and J. Wheeler, 23 January 1991.

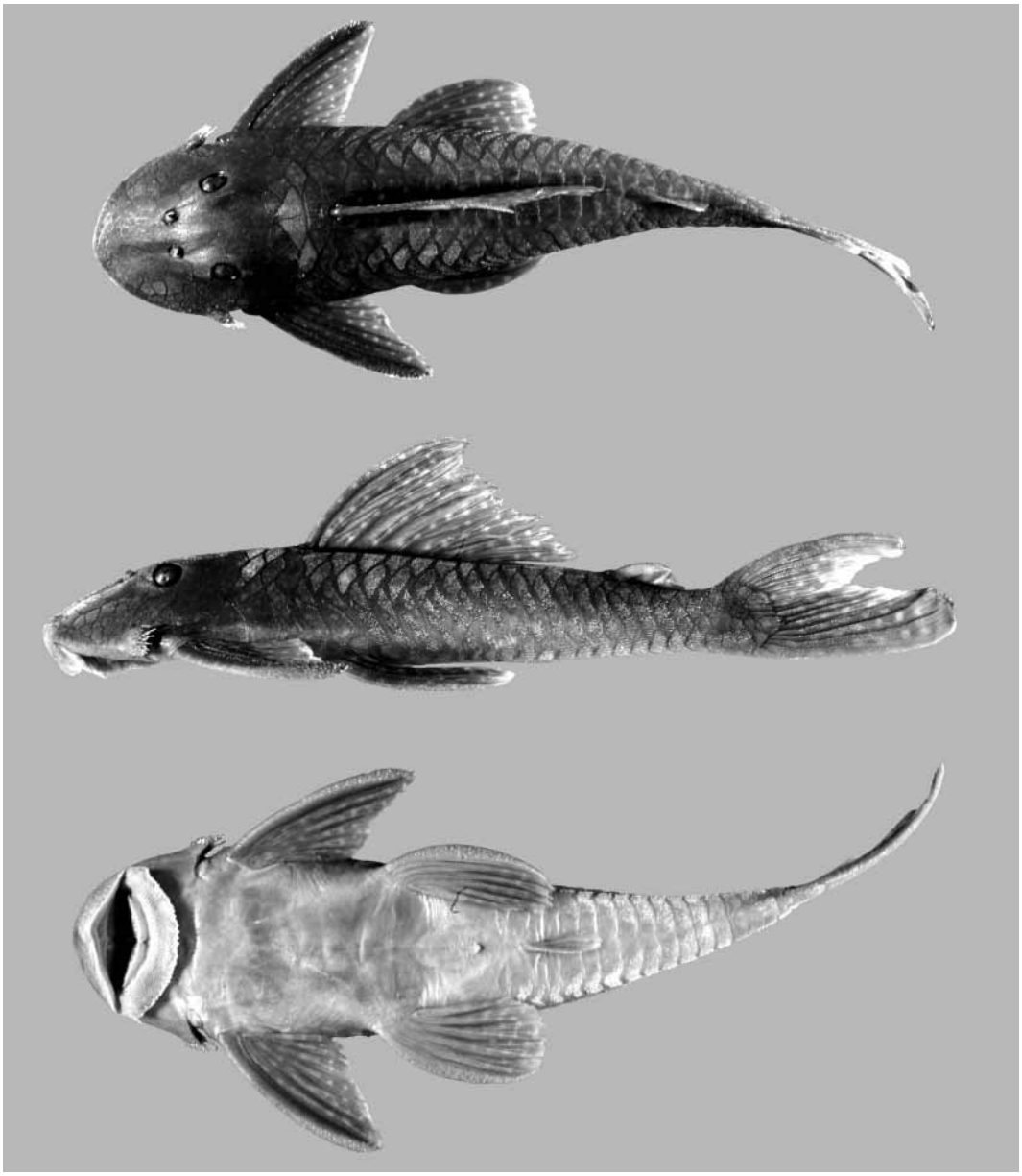

FIGURE 3. *Pseudancistrus sidereus*, MCNG 26125, 175.6 mm SL, holotype, dorsal, lateral, and ventral views. Photos by J.W. Armbruster.

Diagnosis: *Pseudancistrus sidereus* is diagnosed by a unique modification of the ventral plates on the caudal peduncle. In loricariids, the plates of the ventral row on the caudal peduncle are typically bent at an approximately 90° angle to follow the contour of the body. The bend is often the site of a slight keel formed from one or more rows of slightly longer odontodes. In *P. sidereus*, the keel is accentuated by having the dorsal laminae of the plates strongly concave. Although some loricariids may have the dorsal laminae slightly concave, it is much more pronounced in *P. sidereus*.

Pseudancistrus sidereus can be separated from all other species of the Ancistrini by the presence of the keel mentioned above and by the presence of a single large white to yellow spot located at the center of the posterior lateral plates. The only species with a similar coloration are some *Hypancistrus* and some *Panaque*, both of which have far fewer than 25 teeth per jaw ramus (vs. much more than 25 teeth), some other species of *Pseudancistrus* which have hypertrophied odontodes along the snout in males and females (vs. no hypertrophied snout odontodes), and have the dorsal fin reaching at least the preadipose plate when depressed (vs. about two plates anterior to preadipose plate); and some *Hemiancistrus* and *Peckoltia* which generally have the spots much more diffuse (vs. borders of spots distinct) and have the dorsal fin reaching at least the preadipose plate when depressed (vs. about two plates anterior to preadipose plate).

Description. Fairly large loricariids, largest specimen 176.7 mm SL. Body elongate, fairly narrow, and dorsoventrally flattened. Head and anterior part of trunk gently sloped from snout tip to dorsal-fin origin, dorsal profile of body straight to adipose fin with slight decrease in depth, dorsal profile of caudal peduncle very concave, shallowest at posterior insertion of adipose fin. Ventral surface flat.

Head contours smooth. Slight, rounded ridge from anterolateral corner of nares, above orbit to posterior edge of pterotic-supracleithrum, dorsal margin of orbit higher than mesial portion of head. Mesethmoid slightly higher than lateral surface of head forming rounded ridge on snout, continued posterior to mesethmoid and terminating at level of posterior margin of orbits. Supraoccipital with slight posterior point medially. Following head bones supporting odontodes: frontal, infraorbitals, opercle, nasal, pterotic-supracleithrum, sphenotic, supraoccipital, and suprapreopercle.

Lips wide, fairly thin. Upper lip with wide, thin papillae. Lower lip with small papillae anteriorly, a band of larger papillae, and then smaller papillae posteriorly, papillae fading towards posterior edge. Maxillary barbel only barbel present, not reaching base of evertible cheek plates. Mouth with small, narrow buccal papilla. Iris with small dorsal flap, not reaching ventral to center of pupil.

25 plates in median series. Ventral plates forming a right angle on caudal peduncle with dorsal margin of plates concave forming a strong keel along lower portion of caudal peduncle. Dorsal plate series bent between dorsal and adipose fins to form slight ridge, ridges on two sides converging just posterior to insertion of adipose-fin spine. Inframedian plate series bent in middle from cleithrum to insertion of pelvic-fin forming slight keel. Abdomen naked except for some small, embedded plates laterally between pectoral and pelvic fins. Five rows of plates on caudal peduncle.

18–39 (average = 28, N=7) evertible cheek odontodes. Evertible cheek odontodes fairly short, longest reaches posterodorsal corner of opercular opening. Evertible cheek odontodes supported by plates than can be everted up to approximately 90° from the head. Hypertrophied cheek odontodes relatively weak. Single adult male with modestly hypertrophied odontodes on tip of pectoral-fin spine, females with odontodes on tip of pectoral-fin spine slightly longer than those at base (Fig. 3).

All fin spines and rays supporting odontodes. Dorsal fin II7; dorsal-fin spinelet V-shaped, dorsal-fin lock functional; dorsal-fin spine elongated relative to other fin rays in some specimens making edge of fin emarginate; dorsal fin not reaching adipose fin when adpressed. Adipose fin with single median preadipose plate and fairly long curved spine. Caudal fin I14I; caudal fin forked, lower lobe longer than upper; usually six dorsal and five ventral procurrent caudal-fin spines. Pectoral fin I6; pectoral-fin spine reaching posterior insertion of pelvic fin to slightly beyond base of pelvic fin when adpressed ventral to pelvic fin. Pelvic fin I5; pelvic-fin spine reaching end of base of anal fin when adpressed. Anal fin I4; unbranched anal-fin spine ray two thirds the length of the first branched ray. First anal-fin pterygiophore not exposed to form a platelike structure.

Teeth very long and bicuspid with a longer, median lobe. 73–85 dentary teeth (median = 77, N=7). 78–93 premaxillary teeth (median = 84, N=7). Jaws very wide, dentaries forming a very oblique angle, premaxillaries forming a gentle arc.

Color. Ground color dark brown dorsally and laterally, fading to tan on ventral half of inframedian plate series, tan ventrally. Head with small white spots (possibly yellow in life), spots getting larger posteriorly. Usually 2–3 spots per plate anteriorly and one posteriorly. Ventral spots lengthening dorsoventrally on inframedian and ventral plates series until fading into ventral coloration. Ventral surface of upper lip brown. Dorsal-fin membranes hyaline or with slight spotting; dorsal-fin spine and rays with oval spots. Adipose fin with weak spots or mottled. Caudal fin distinctly lighter ventrally; spots on ventral lobe fairly large and round and spots on dorsal lobe smaller and oval. Leading edge of pectoral-fin spine light; pectoral-fin spine with or without spots; small round spots centered on pectoral-fin rays; color slightly fading posteriorly on pectoral fin. Pelvic fin with larger spots fading distally, spots on both rays and membrane. Anal fin tan or mottled.

Sexual dimorphism. One potentially nuptial male examined with hypertrophied odontodes on the sides similar to *Peckoltia* and *Panaque* (*Panaqolus*), but shorter and sharper. Hypertrophied odontodes on pectoral-fin spine larger in the potentially nuptial male.

Range: Known from the Río Casiquiare drainage and the upper Río Orinoco drainage of Amazonas, Venezuela (Fig. 4).

Etymology: From the Latin *sidereus* for starry. Named because the dark background makes the white to gold spots look like stars.

Discussion

Even with the phylogeny of Armbruster (2004), it is difficult to assign basal members of the Ancistrini to genus. Many of the basal groups are without strong synapomorphies supporting the genera; however, *Pseudancistrus* is strongly supported by several characteristics. Although none of these characteristics are unique to *Pseudancistrus*, the genus is very well supported in the phylogenetic analysis with a decay value of five (Armbruster 2004).

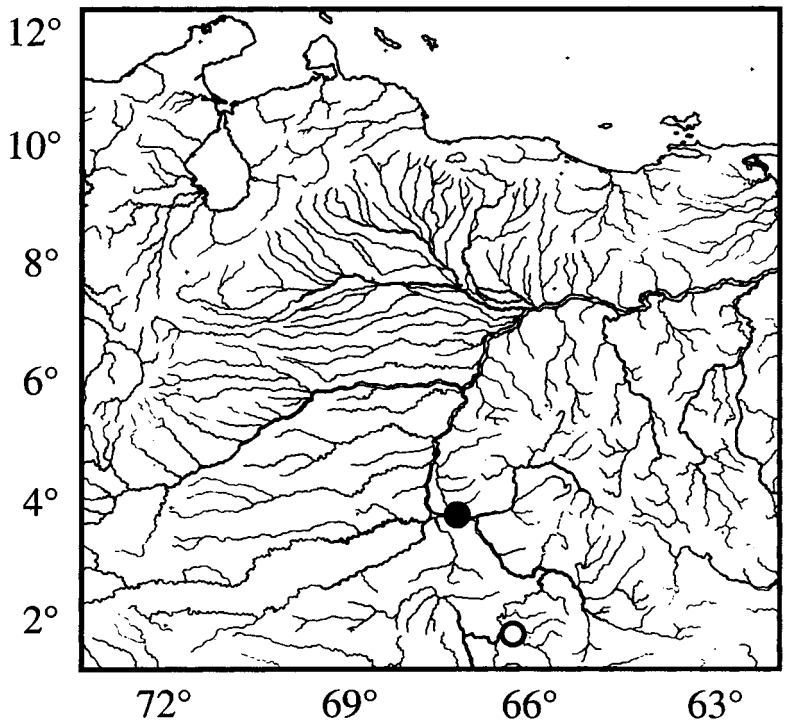

FIGURE 4. Range of *Pseudancistrus sidereus*, open symbol is the type locality.

The previous use of the lack of evertibility of cheek plates as a diagnostic characteristic in *Pseudancistrus* is weak. Some advanced species such as *P. nigrescens* appear to have little ability to evert the cheek plates while some specimens of *P. barbatus* appear to be able to evert the plates almost to the same degree as most other members of the Ancistrini (pers. obs.). All species of *Pseudancistrus* retain the modified opercle of the Ancistrini that is used as an aid to evert the cheek plates in most of the Ancistrini, and all retain hypertrophied odontodes on the cheek.

Guyanancistrus is not likely to be a monophyletic entity. Although only *Pseudancistrus brevispinis* has been examined osteologically, the species attributed to *Guyanancistrus* vary from *P. brevispinis* that lacks hypertrophied odontodes along the snout and that has fully evertible cheek plates to *P. niger* that develops at least small hypertrophied odontodes on the snout and that has the cheek plates very weakly evertible. No characteristics were given to diagnose the genus or separate it from any genus other than *Lasiancistrus* in the original description (Isbrücker et al. 2001). *Lasiancistrus* is a very well diagnosed genus that is not particularly closely related to *Pseudancistrus* (Armbruster 2004). *Lasiancistrus* is readily identifiable from *Pseudancistrus* by having whiskerlike odontodes among the hypertrophied cheek odontodes and three rows of plates on the caudal peduncle (vs. 4–5 in *Pseudancistrus*; Armbruster 2004).

Hemiancistrus megacephalus was transferred to *Pseudancistrus* by Armbruster (2004). The genus *Hemiancistrus* is a mix of unrelated forms, and it remains one of the largest taxonomic problems in the Ancistrini (Armbruster 2004). The type species of *Hemiancistrus* is *H. medians*, and it differs from *P. megacephalus* mainly in color (it is almost the inverse of the color of *P. megacephalus*) and by slight differences in jaw morphology. I have not examined a skeleton of *H. medians*, but it may also be related to *Pseudancistrus* because it is so similar to *P. megacephalus*. Because *Hemiancistrus* is so confused taxonomically, decisions on where *H. medians* fits, and any final decision on the fate of *Hemiancistrus* await skeletal examination of *H. medians*.

The type of *Pseudancistrus coquenani* has the enlarged papilla behind the dentary teeth that was used to diagnose *Lithoxancistrus orinoco* (Isbrücker et al. 1988). It is likely that *P. orinoco* and *P. guentheri* are sisters based on this characteristic. Several other loricariids have a sister group relationship between species in the upper Río Orinoco and the upper Río Caroni including the two described species of *Neblinichthys* and the two known species (one is undescribed) of *Exastilithoxus* (Provenzano et al. 1995; pers. obs.). Although this range is currently disjunct, further collecting in the rivers between the upper Río Orinoco and the upper Río Caura may yield specimens similar to *P. orinoco* and *P. coquenani*.

Isbrücker (2001) placed *Pseudancistrus genisetiger* and *P. papariae* in *Lithoxancistrus* without comment. These two species lack the dentary papillae used by Isbrücker et al. (1988) to diagnose *Lithoxancistrus* and appear to be advanced members of *Pseudancistrus* as the cheek plates are only weakly evertible.

Isbrücker et al. (2001) place *Hypostomus guacharote* Valenciennes 1840 and *Chaetostomus trinitatis* Günther 1864 into *Guyanancistrus*. The type of *H. guacharote* (MNHN A-9567) is clearly a *Lasiancistrus* (pers. obs.) as it has the whiskerlike odontodes on the cheek (Armbruster 2004). The type locality for *L. guacharote*, new combination, is Puerto Rico; however, this species shares characteristics with specimens of *Lasiancistrus* from the Lago Maracaibo basin of Venezuela (pers. obs.). No loricariids are known to naturally occur on Puerto Rico, and the island is located far to the north of the range of the Loricariidae suggesting that the locality is incorrect. *Chaetostomus trinitatis* was described by Günther (1864) based on specimens reported by Gill (1858) from Trinidad. No type specimens are available for the species, the description of the species is inadequate to place the species within a genus of the Ancistrini, and the only loricariids I have examined from Trinidad are *Ancistrus* and *Hypostomus*. In all likelihood, *C. trinitatis* is a species of *Ancistrus*, and the species should be referred to as *Ancistrus trinitatis* new combination.

Additional Specimens Examined

Data is as follows: catalog number, number of individuals, type status (if necessary), standard length in mm. For those specimens examined, but not measured, standard lengths are not presented.

Pseudancistrus barbatus: MNHN A-9564, 1, holotype, 204.0; AUM 38023, 1, 126.6. *P. brevispinis*: ANSP 152115, 2, 52.0–92.3; BMNH 1982.9.30:1–2, 2, paratypes, 88.5–106.8; FMNH 94506, 2, paratypes, 68.9–103.7. *P. coquenani*: NMW 48023, 2, syntypes, 75.5–78.6; AMNH 91023, 1, 53.9–62.9. *P. depressus*, BMNH 1866.14.139, 1, holotype, 105.4. *P. genisetiger*: ANSP 69441, 1, holotype. *P. guentheri*, BMNH 1978.3.2.1, 1, holotype. *P. longispinis*, MNHN 1979–158, 1, paratype, 94.0; MNHN 1979–159, 1, paratype, 99.3; MNHN 1979–160, 1, paratype, 80.9; MNHN 1979–161, 1, paratype, 76.5; MNHN 1979–162, 1, paratype, 80.6; MNHN 1979–163, 1, paratype, 80.6; MNHN 1982–851, 1, paratype, 81.9; MNHN 1982–852, 1, paratype, 75.2; MNHN 1982–854, 1, 111.6. *P. niger*: BMNH 1926.3.2:756, 1, lectotype, 157.8; BMNH 1926.3.2:757–760, 4, paralectotypes, 81.9–129.83; MNHN 1900–0157, 1, 130.1. *P. nigrescens*: FMNH 53105, 1, holotype, 131.8. *P. orinoco*: ANSP 165824, 1, 78.1; MCNG 17525, 2, 64.6–94.4; MCNG 18410, 1, 52.0–62.9; MCNG 20205, 3, 29.0–33.6; MCNG 29524, 2, 62.7–82.6; MCNG 30407, 2, 45.5–58.4. *P. papariae*: ANSP 69442, 1, holotype; AUM 20768, 1, 113.9. *P. schomburgkii*: BMNH 1978.3.2.2, 1, holotype, 100.1.

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