

A new species of *Gelanoglanis* (Siluriformes: Auchenipteridae) from the Marañón River (Amazon Basin), northeastern Perú

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ABSTRACT.—We describe a new species of driftwood catfish, *Gelanoglanis travieso*, (Siluriformes: Auchenipteridae) from the Marañón River, a whitewater tributary of the Amazon River in northeastern Perú. It shares with the two described species in this genus, *G. stroudi*, from left bank whitewater tributaries of the Orinoco River in Colombia and Venezuela, and *G. nanonoticolus* from blackwater tributaries of the upper Orinoco and Negro Rivers in Amazonas, Venezuela and northern Brazil, the following synapomorphies: reduced size, compressed body, conical snout, a single pair of mental barbels, premaxillae widely separated at rostral border of upper jaw, premaxillary and dentary tooth patches narrow, posterior naris long and narrow and positioned immediately anterior to orbit, and small eyes. *Gelanoglanis travieso* differs from all congeners in having second dorsal-fin lepidotrichium filamentous, simple, not a spine, and not serrate (shared with *G. nanonoticolus*); pectoral-fin spine stout, serrate along posterior margin (shared with *G. stroudi*); and a terminal mouth (vs. subterminal in *G. nanonoticolus* and *G. stroudi*).

New taxon: *Gelanoglanis travieso* Rengifo and Lujan

INTRODUCTION

Böhlke (1980) described *Gelanoglanis stroudi* as a new genus and species of driftwood catfish (Siluriformes: Auchenipteridae) from the Meta drainage, a whitewater tributary of the Orinoco that drains the Andes Mountains and the Llanos of southwestern Colombia. Characters given by Böhlke as diagnostic for genus and species *Gelanoglanis stroudi* include a single pair of mental barbels, premaxillary tooth patches lateral and widely separated anteriorly, an elongate posterior naris directly anterior to orbit, a small eye, a mouth large in lateral aspect, a free fleshy flange around the angle of the gape, dorsal, anal, and paired fins short-based, with few rays, a dorsal-fin spine pungent with serrations on its posterior margin only, first pectoral-fin lepidotrichium spinous with serrations only on posterior (inner) margin, and a soft body with rosy-red color in life. Böhlke (1980: 150) asserted that *Gelanoglanis*

“is not closely related to any described auchenipterine.” Curran (1989), in the first published phylogenetic hypothesis of auchenipterid intergeneric relationships, found *Gelanoglanis* to be sister to *Asterophysus* based on the shared presence of a short maxillary barbel groove, dorsal-fin spine insertion directly dorsal to pectoral-fin spine insertion, and a wide mouth with rictus at least coequal with vertical through posterior edge of the eye. Soares-Porto (1998), in a phylogenetic analysis of the Centromochlinae, recovered *G. stroudi* as deeply nested within *Centromochlus*, yet distinguished by a uniquely derived condition within the Centromochlinae: cranial fontanel absent, complete medial contact between frontal bones.

Contrary to Soares-Porto’s (1998) synonym-ization of *Gelanoglanis* with *Centromochlus*, Soares-Porto et al. (1999), recognized the genus as valid and described a second species, *G. nanonoticolus*, from blackwater

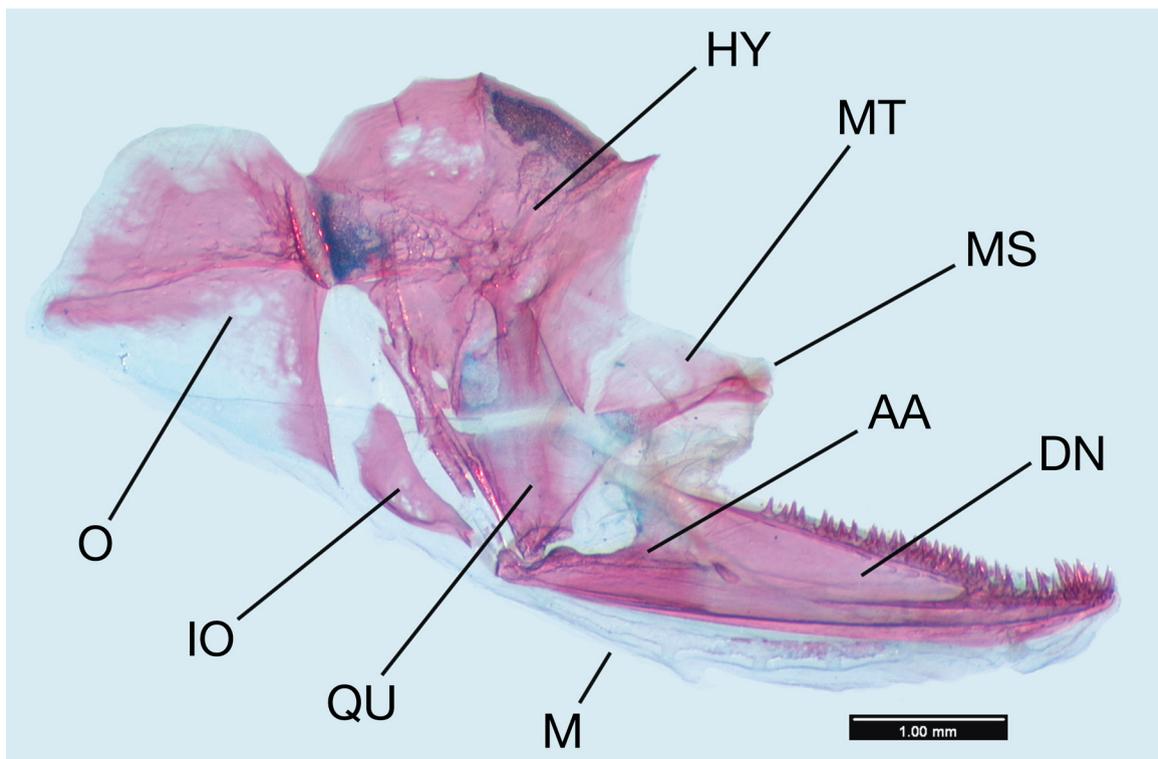


Fig. 1. Right suspensorium, lateral view, of *Gelanoglanis travieso*, paratype, ANSP 182808. Abbreviations: AA, anguloarticular; DN, dentary; HY, hyomandibular; IO, interopercle; M, mandibular sensory canal; MS, mesopterygoid; MT, metapterygoid; O, opercle; QU, quadrate. Scale bar = 1.00 mm.

tributaries of the Ventuari River, a tributary of the upper Orinoco River in southern Venezuela, and the Paraná do Jacaré, a tributary of the upper Negro River in northern Brazil. Soares-Porto et al. (1999) provided a new diagnosis for the genus based on a unique combination of characters including many previously proposed by Böhlke (1980): single pair of mental barbels; premaxillary tooth patches laterally oriented and widely separated anteriorly at midline; frontals sutured along midline for entire length, anterior fontanelle absent; vomer absent; mesopterygoid reduced to small round bone; third pectoral-fin radial absent; mandibular ramus of lateral line canal free from dentary (see Fig. 1); posterior naris large and immediately anterior to eye; oblique, sinuous mouth with free fleshy flange around angle of gape; and dorsal, anal, and paired fins short-based with few rays. Characters that diagnose *G. nanonotcticulus* as distinct from *G. stroudi* include a putatively smaller maximum adult size, 15.4–22.2 mm SL (vs. 22.9–36.6 mm SL in *G. stroudi*), second dorsal- and first pectoral-fin lepidotrichia non-serrate and filamentous (vs. spinous and serrate posteriorly), and adipose fin absent

or reduced to a long, low fin fold (vs. adipose fin present, short-based, and with a free posterior margin).

Recent fieldwork in the Marañon drainage of northern Perú, a whitewater tributary of the upper Amazon, yielded several specimens of a distinctive and heretofore undescribed species assignable to *Gelanoglanis*. Herein, we summarize available data for all species of *Gelanoglanis* and describe the new species as *Gelanoglanis travieso*.

MATERIALS AND METHODS

Straight-line measurements to nearest 0.1 mm were made with digital calipers using the methodology of Soares-Porto et al. (1999), and are presented as ratios of either standard length (SL) or head length (HL). Fin ray meristics are reported with unbranched rays in lower case Roman numerals (i), spines in upper case Roman (I), and branched rays in Arabic numerals followed by the number of specimens observed with each state in parentheses. Dorsal-fin spinelet treated as a spine, followed by number of unbranched dorsal-fin rays, then number of branched

dorsal-fin rays. The term retrorse refers to serrations directed toward the base of the spine. Caudal skeleton notation follows Lundberg and Baskin (1969). Institutional abbreviations are as listed at <http://research.calacademy.org/research/ichthyology/catalog/abtabr.html>. Abbreviations used in text include CS to indicate cleared and stained specimens and XR to indicate alcohol specimens for which radiographs were examined.

Gelanoglanis Böhlke

Böhlke, 1980, 150 [type species by original designation: *G. stroudi* Böhlke, 1980]

Key to species of *Gelanoglanis*

1a. Second dorsal-fin lepidotrichium spinous with retrorse serrations on posterior margin; preanal length 6.8–8.3% SL; pectoral-fin origin to pelvic-fin origin distance 2.9–3.7% SL; maxillary barbels 47.0–61.3% SL.....*G. stroudi*

1b. Second dorsal-fin lepidotrichium filamentous, simple, not serrate; preanal length 6.0–6.7% SL; pectoral-fin origin to pelvic-fin origin distance 2.0–2.8% SL; maxillary barbels approximately 27.5–46.5% SL.....**2**

2a. Mouth subterminal; first pectoral-fin lepidotrichium filamentous, not serrate; head depth at supraoccipital 17.2–19.8% SL; dorsal-fin origin to pelvic-fin origin 31.4–34.6% SL; gape width 3.8–4.8% SL.....*G. nanonoticolus*

2b. Mouth terminal; first pectoral-fin lepidotrichium spinous with retrorse serrations on posterior (inner) margin; head

depth at supraoccipital 21.1–26.8% SL; dorsal-fin origin to pelvic-fin origin 25.9–31.1% SL; gape width 7.5–12.2% SL.....*G. travieso* n. sp.

Gelanoglanis travieso, new species, Rengifo and Lujan

Fig. 2

Holotype.—MUSM 31065, 27.9 mm SL mature male (XR), Perú, Departamento Amazonas, Río Marañón drainage, Río Nieva, 7.4 km SSW Juan Velasco (Santa Maria de Nieva), 4°39'38" S, 77°53'02" W, altitude 186 m, 05 August 2006, N.K. Lujan, D.C. Werneke, D.C. Taphorn, D.P. German and D. Osorio.

Paratypes.—Perú, Departamento Amazonas: ANSP 182807, 29.7 mm SL female (XR), same data as holotype. ANSP 182808, 29.2 mm SL male (CS), AUM 46569, 16.3 mm SL male, 30.4 mm SL female, MUSM 31066, 15.3 mm SL female, 20.3 mm SL female (XR), Río Marañón drainage, Río Nieva, 4°36'47" S, 77°52'03" W, altitude 186 m, 31 July 2006, N.K. Lujan, D.C. Taphorn, B. Rengifo and D. Osorio; MUSM 10598, 23.8 mm SL male, 19.4 mm SL female, Río Marañón near Imazita, 5° 04'48" S, 78°20'45" W, 11 November 1996, F. Chang and J. Grados.

Diagnosis.—Member of the subfamily Centromochlinae as defined by Soares-Porto (1998). *Gelanoglanis travieso* is diagnosed from congeners by the following combination of characteristics: Terminal mouth; second dorsal-fin lepidotrichium filamentous, simple, not a spine, not serrate; first pectoral-fin lepidotrichium spinous and serrate posteriorly; adipose fin short with free posteri-

Table 1. Summary of diagnostic characters for all species of *Gelanoglanis*.

character	<i>G. stroudi</i>	<i>G. nanonoticolus</i>	<i>G. travieso</i>
adult size mm SL	22.9–36.6	15.4–22.2	15.3–30.4
2nd dorsal-fin lepidotrichium	stout spine, serrate posteriorly	non-serrate, flexible filament	non-serrate, flexible filament
1st pectoral-fin lepidotrichium	stout spine, serrate posteriorly	non-serrate, flexible filament	stout spine, serrate posteriorly
adipose fin	present; short, with free posterior margin; origin at vertical line through anal-fin insertion	absent or reduced to long, low fleshy fin fold; origin just caudad of rayed dorsal fin; ridge slightly elevated from vertical line above origin or middle of anal fin to base of caudal peduncle; lacking free posterior margin	present; short with free posterior flap in larger specimens; low, fleshy ridge in smallest specimen
maxillary barbel % SL	47.0–61.3	33.3–39.6	27.5–46.5
mental barbel % SL	8.1–12.5	7.2–10.3	5.7–11.9
mouth	subterminal	subterminal	terminal
posterior naris	rectangular, long and narrow	ovate, long and narrow	rectangular, long and narrow



Fig. 2. A. Holotype *Gelanoglanis travieso* n. sp., MUSM 31065, 27.9 mm SL, male. B. Paratype, AUM 46569, 29.7 mm SL, female.

or margin in larger specimens, or as low fleshy ridge in smallest specimen; fleshy ridge or keel from anal-fin insertion to caudal fin absent; sexually dimorphic anal fin of males arrow-shaped; first two anal-fin rays unsegmented and unbranched; two posteriormost anal-fin rays shortened (Table 1).

Comparisons.—*Gelanoglanis stroudi* and *G. nano-nocticolus* have subterminal mouths; and sexually-dimorphic male anal fin conical in shape with third and fourth rays of equal length. *Gelanoglanis stroudi* has a spinous, serrate second dorsal-fin lepidotrichium; second anal-fin ray of males segmented and branched; and single posteriormost anal-fin ray shortened. *Gelanoglanis nano-nocticolus* has first pectoral-fin lepidotrichium filamentous, simple, not serrate; adipose fin absent or as a long, low fin fold without free posterior margin; fleshy ridge or keel present from anal-fin insertion to caudal fin; first three anal-fin rays of males unsegmented and unbranched; and four posteriormost anal-fin rays shortened.

Description.—Morphometrics summarized in Table 2. Head and anterior body cylindrical, transitioning posteriorly to a compressed caudal peduncle. Snout conical; maxillary barbel originating directly ventral or slightly anteroventral to posterior naris and reaching pelvic-fin origin; single pair of mental barbels well developed, extending midventrally beyond gill membrane. Lateral edges of palatine forming an oblique lateral ridge anterior to ante-

rior naris. Anterior naris with short epidermal tube around circumference; posterior naris forming tall, rectangular opening immediately anterior to orbit, with short epidermal flaps along anterior and posterior edges. Mouth terminal; gape large and extremely wide; lips fleshy, forming a flap appearing in lateral view as an open S-curve, deflected upward anteriorly, downward posteriorly. Premaxillary and dentary tooth patches narrow and elongate, with one to two irregular rows of teeth.

Dorsal fin I,i,5 (n = 6), I,ii,4 (3); second dorsal-fin lepidotrichium is a flexible, unbranched fin ray lacking serrations, approximately 12.5–16.8% SL; dorsal-fin origin situated far forward, over opercle; dorsal-fin base short (9.2–12.8% SL). Pectoral fin I,i,4,i (9); first pectoral-fin lepidotrichium spinous and serrate along posterior (inner) margin, approximately 9.5–15.5% SL; pectoral-fin serrations three to 11; pectoral-fin insertion anterior to dorsal-fin origin. Pelvic fin i,5 (6), ii,5 (2), or i,6 (1); fourth branched ray longest; pelvic-fin origin approximately midway between dorsal-fin insertion and anus. Total anal-fin lepidotrichia six (2) or seven (7), anterior unbranched and unsegmented rays one (2) or two (7), segmented rays four (3) or five (6), posterior branched and segmented rays zero (6) or one (3); anal-fin origin approximately midway between verticals through anus and adipose-fin insertion; six proximal radials present; two posterior-most proximal radials smaller than anterior four. Fleshy ridge or keel

Table 2. Proportional measurements of *Gelanoglanis stroudi* (n = 10; 1 male, 9 females), *G. nanonoticolus* (n = 6; 2 males, 4 females) and *G. travieso* (n = 9; 4 males, 5 females). Sexually dimorphic characters given separately.

Measurements	<i>G. stroudi</i>				<i>G. nanonoticolus</i>				<i>G. travieso</i>			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Standard length (SL)	22.9	36.6			15.4	22.2			15.3	30.4		
% SL												
Head depth at occiput	21.3	27.6	25.1	2.0	17.2	19.8	18.6	0.9	21.1	26.8	24.8	1.5
Body width at pectoral-fin origin	10.5	14.6	13.1	1.4	14.3	16.2	13.3	3.8	9.5	12.9	11.2	1.3
Max body depth	20.8	23.9	22.3	1.2	24.3	27.0	23.7	3.6	20.1	25.6	22.2	1.5
Pre-isthmus length	7.5	14.4	10.5	2.6	7.2	10.7	9.4	1.3	11.9	17.9	15.2	1.8
Predorsal length	28.7	32.9	30.9	1.5	23.6	26.0	23.6	2.1	25.5	29.9	27.4	1.4
Dorsal-fin base length	10.4	13.8	12.5	1.1	7.3	10.1	8.8	1.2	9.2	13.2	11.8	1.3
Anal-fin base length (male)	2.3								3.3	6.7	4.6	1.4
Anal-fin base length (female)	2.1	8.2	5.5	2.0	7.7	8.9	8.4	0.5	5.4	7.3	6.2	0.8
Preanal length	67.8	83.3	74.1	5.3	63.0	66.8	65.7	2.4	60.1	66.1	63.1	2.2
Least caudal peduncle depth	9.5	12.0	10.3	0.8	10.2	11.6	10.1	1.4	9.4	11.7	10.5	0.7
Dorsal-fin origin to pectoral-fin origin	19.4	23.5	21.6	1.2	18.6	20.8	19.5	0.8	18.5	22.7	19.9	1.3
Dorsal-fin origin to pelvic-fin origin	31.3	38.8	35.2	2.9	31.4	34.6	33.2	1.4	25.9	31.1	28.3	2.1
Pectoral-fin origin to pelvic-fin origin	28.9	36.9	31.4	2.4	20.0	24.7	22.9	1.9	21.5	27.8	25.8	2.1
Prepectoral length	22.3	25.8	23.9	1.4	20.6	23.4	21.2	1.6	19.5	25.2	21.8	2.1
Prepelvic length	49.3	59.3	54.3	3.2	43.7	68.6	45.7	9.9	39.6	49.0	45.3	2.9
Anal-fin origin to pelvic-fin origin	16.5	21.3	18.9	1.7	17.4	28.8	21.7	4.0	15.6	22.9	19.7	2.2
Anal-fin origin to hypural plate	25.4	61.2	33.6	12.0	34.6	51.9	38.8	6.6	31.1	38.8	35.1	2.7
Post anal-fin base to hypural plate	20.8	53.8	28.9	11.0	26.7	39.0	30.7	4.5	26.0	32.0	29.5	1.8
Dorsal-fin height	0.0	13.3	5.4	5.0	-	-	-	-	4.4	10.1	5.9	1.8
Adipose-fin height	0.8	2.6	1.8	0.7	3.9	7.4	4.9	1.3	0.5	2.7	1.6	0.8
Longest anal-fin ray (male)	17.4				5.0	5.6	5.3		7.9	10.2	9.0	1.0
Longest anal-fin ray (female)	9.8	17.5	12.6	2.8	6.2	11.1	7.8	2.3	9.2	13.8	11.6	1.8
Pectoral-fin length	10.2	13.9	12.2	1.1	14.4	23.9	16.2	4.8	13.0	18.0	15.9	1.7
Pelvic-fin length	10.1	12.2	11.2	0.8	9.6	15.8	11.7	2.2	6.7	16.8	11.1	2.9
Maxillary barbel length	51.6	61.3	54.5	3.4	33.3	39.6	34.8	4.5	27.5	46.5	39.4	6.2
Mental barbel length	8.1	12.5	10.7	1.6	7.2	10.3	8.1	1.2	5.7	12.0	8.8	1.8
Dorsal-spine length	0.0	14.0	9.8	5.1	-	-	-	-	12.7	16.8	14.9	1.5
Pectoral-spine length	0.0	11.9	8.9	4.6	-	-	-	-	9.4	15.5	12.6	1.9
First pelvic-fin ray length	0.0	11.1	8.2	4.2	-	-	-	-	8.6	13.2	10.4	1.4
Head length (HL)	28.8	33.0	30.6	1.3	23.8	41.8	27.0	6.5	22.9	28.1	26.2	1.6
% HL												
Gape width	7.1	12.3	10.3	1.5	3.8	4.8	5.0	1.3	7.5	12.2	9.5	1.6
Eye diameter	2.5	3.6	2.8	0.4	2.2	3.4	2.9	0.5	2.0	3.7	2.7	0.6
Snout length	9.6	12.5	11.0	0.9	8.1	9.5	8.7	0.5	9.1	11.0	10.2	0.7
Interorbital width	6.2	8.2	7.3	0.7	5.6	8.0	6.1	0.8	3.7	8.8	6.7	1.5
Upper jaw length	10.0	14.5	12.7	1.3	9.6	13.0	11.8	1.2	8.4	12.2	10.3	1.4
Posterior internarial width	4.1	7.3	6.4	1.1	3.4	7.3	4.9	1.8	2.9	6.7	5.4	1.3

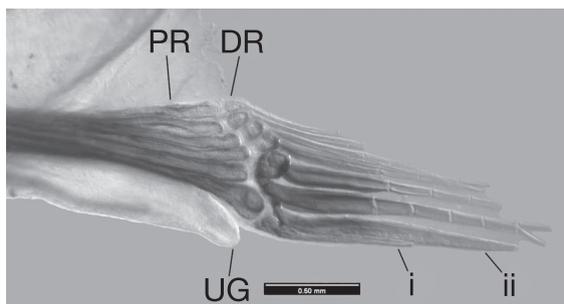


Fig. 3. Cleared and stained anal fin of adult male *Gelanoglanis travieso*, paratype, ANSP 182808. Abbreviations: DR, distal radials; PR, proximal radials; UG, urogenital opening; i, ii, anterior unbranched and unsegmented fin rays. Scale bar = 0.50 mm.

from anal-fin insertion to caudal fin absent. Adipose fin small, with free posterior flap; situated posterior to vertical through anal fin insertion; replaced by delicate, hyaline fin fold from near dorsal-fin insertion to caudal peduncle in smallest specimens. Caudal fin i,15,i (3) or i,16,i (6); dorsal procurrent rays four (1), six (6), or eight (2); ventral procurrent rays six (7) or eight (2); caudal fin deeply emarginate with coequal lobes.

Postcleithral process weakly developed, not extending past gill opening. Lateral line complete, not bifurcated over caudal fin. Total vertebrae 39 ($n = 1$ CS) including 3 fused vertebrae (2-4) of Weberian complex, and with compound caudal centrum counted as one; fifth centrum tightly sutured to Weberian (compound) centrum 2-4; sixth centrum bearing first pleural rib. Pleural ribs nine. Hypural fusion pattern PH+1+2;3+4;5 with upper hypurals not fused to compound caudal centrum.

Sexual dimorphism.—Anal fin caudally directed, posteriorly free and forming intromittent organ in sexually dimorphic adult males (Fig. 3), as in other genera of the Centromochlinae (Soares-Porto, 1999). Nuptial males with shorter anal-fin base length (3.3-6.7 vs. 5.4-7.3% SL) and shorter anal-fin rays (7.9-10.2 vs. 9.2-13.8% SL) than females. First two unbranched anal-fin rays unsegmented; first unbranched fin ray approximately half length of second; first branched fin ray longest with remaining branched rays progressively shorter such that last is approximately one third as long as first. Male urogenital duct extended as an elongate, fleshy tube anterior to ossified fin rays, terminating approximately coequally with first proximal radial. Female urogenital duct also in advance of anal fin, but short and conical, not extended as a tube.

Coloration.—Two specimens collected during the day appeared dark, with widely dilated melanophores when preserved (Fig. 2A), and five specimens collected at night appeared white, with tightly constricted melanophores

when preserved (Fig. 2B). These differences seem to correspond to a dark, daytime color phase when *Gelanoglanis travieso* is most likely hidden in submerged logs, leaf litter or other dark places, and a light, nighttime color phase when it is actively feeding near the surface (see *Ecology*).

In the dark, daytime color phase, head of preserved specimens is dark dorsally and laterally around the anterior opercular region. Melanophores are absent from mental regions and regions ventral and posteroventral to orbit. The body is dark dorsally and laterally, with individual melanophores apparent as expanded asterisk-like blotches; gaps between blotches increase ventrally with melanophores absent from ventral abdominal region or restricted to small midventral patch between pectoral fins; melanophores converging ventrally posterior to anal fin. In the white, nighttime phase, preserved specimens of *Gelanoglanis travieso* have a white to cream base color with tiny jet-black melanophores present on top and sides of head, opercle, dorsum and sides of body and caudal peduncle. Melanophores sparse, absent, or deeply subdermal in ventral abdominal region. In both phases, all fins but dorsal and caudal are unpigmented and transparent. Dorsal fin with a proximal patch of melanophores extending from fin base approximately halfway up fin rays. Melanophores also extending past base of caudal fin up to one fourth length of caudal-fin rays.

Etymology.—Named *travieso*, the Spanish word for mischievous, lively, and animated; reflecting the species' cheery appearance, also alluded to in its generic epithet (meaning "cheerful catfish," Böhlke, 1980:151), and its night-wandering habits, also alluded to in the specific epithet of its most-recently described congener (Soares-Porto et al., 1999).

Distribution.—Known from the Río Nieva, Río Marañón drainage, and Río Marañón itself in Departamento Amazonas, Perú (Fig. 4, open circle).

Ecology.—*Gelanoglanis travieso* was collected from moderate gradient piedmont reaches of the Ríos Marañón and Nieva, whitewater tributaries of the Amazon draining the Andes. Specimens were collected in turbid water at beaches over substrates of sand to mud and cobble with some woody debris. Stomach of cleared and stained specimen (ANSP 182808; collected at night) contained at least eight terrestrial, winged insects of the orders Homoptera and Hymenoptera.

DISCUSSION

Osteological characters of *Gelanoglanis* have been described in broad stroke by Böhlke (1980) and in finer detail by Soares-Porto (1998), in both cases based on cleared and stained specimens of *Gelanoglanis stroudi* (Böhlke:

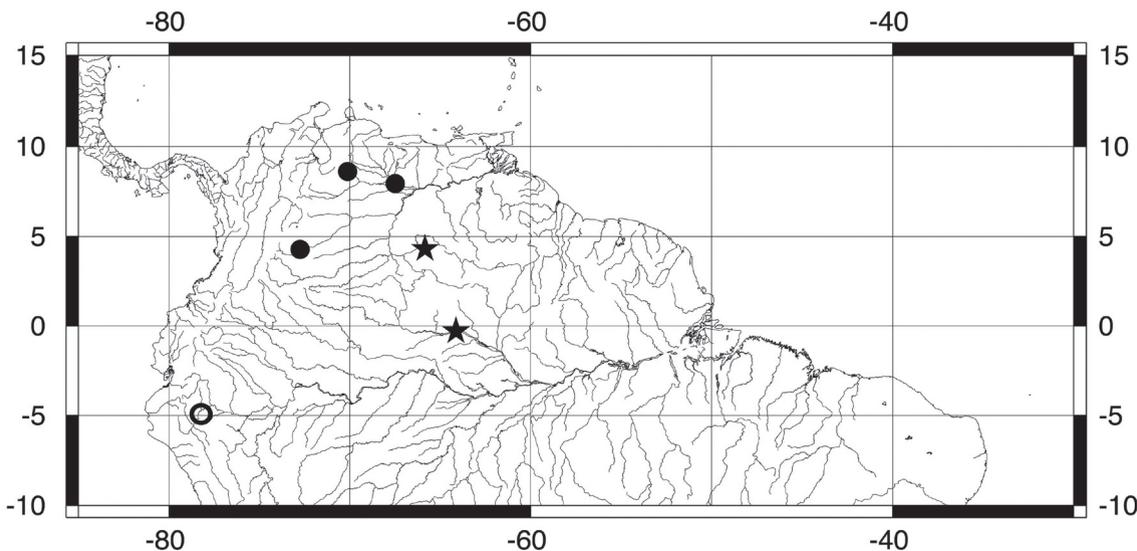


Fig. 4. Map of the reported distribution of *Gelanoglanis* (open circle, *G. travieso*; closed circles, *G. stroudi*; stars, *G. nanonotocolus*).

ANSP 142940, ANSP 142941, FMNH 83912; Soares-Porto: ANSP 142941). It seems that attempts to clear and stain specimens of *G. nanonotocolus* failed (Soares-Porto et al., 1999). Our own observations of cleared and stained specimens of *G. stroudi* (ANSP 142940) and *G. travieso* (ANSP 182808; Fig. 1) reveal some differences with those of Soares-Porto (1998), notably in regard to the condition of the metapterygoid and the hyomandibular. Soares-Porto (1998) states that the metapterygoid lacks contact with the hyomandibular, and is a small bone almost restricted to its ossification center, and the hyomandibular is weakly developed only on its rostral margin, not forming a deep notch (Soares-Porto, 1998, p. 338, fig. 9). Our own observations are that the metapterygoid contacts the hyomandibular via a broad posterodorsal flange beyond its ossification center; and that the hyomandibular is well-ossified on its rostral border (narrow gap between metapterygoid and hyomandibular apparent in Fig. 1 is occupied by unstained cartilage). This condition is similar to that observed in *G. stroudi* (ANSP 142940). Soares-Porto (pers. comm., 2008) notes that the laminar outgrowth of the metapterygoid plus hyomandibular was not well-stained and was therefore not illustrated in the *G. stroudi* figured in Soares-Porto et al. (1998; ANSP 142941), potentially accounting for the discrepancy observed herein.

COMPARATIVE MATERIAL EXAMINED

Gelanoglanis stroudi: ANSP 142937, holotype, 22.6 mm SL female; ANSP 142938, 3 paratypes, 25.02-26.78

mm SL females (rg.); ANSP 142940, 1 paratype, 24.8 mm SL male (CS); ANSP 142939, 1 paratype, 22.94 mm SL female, Colombia, Meta Department, Río Meta drainage, Río Metica approximately 22 km SW Puerto Lopez and 3 km SE Hacienda Mozambique, 3°56'42" N, 73°02'23" W. *Gelanoglanis nanonotocolus*: MCNG 36442, 1 paratype, 15.4 mm SL female, Venezuela, Amazonas state, Orinoco River basin, Río Asisa 22-30 km upstream from confluence with Río Paru, Río Ventuari drainage, approximately 4°33' N, 65°54' W, altitude 115m.

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