

***Characidium longum* (Characiformes: Crenuchidae), a new fish from Venezuela**

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Abstract

We describe a new species of *Characidium* Reinhardt, 1867, from tributaries of the blackwater rivers Capanaparo, Cinaruco, Caura and Casiquiare in Apure, Bolivar and Amazonas states of Venezuela. *Characidium longum* is diagnosed by an extremely elongate body and a unique pigmentation pattern consisting of 13 or more black vertical bars, each with a concentrated spot of pigment at mid-body. These bars are united with a series of reddish-brown dorsal saddles, which cross over the dorsum and unite with bars from the opposite side of the body.

Key words: *Characidium*, new species, Venezuela, Orinoco, Caura, Casiquiare, Cinaruco, Capanaparo

Resumen

Se describe una especie nueva de *Characidium* Reinhardt, 1867, colectada en afluentes de los ríos Capanaparo, Cinaruco, Caura y Casiquiare, en los estados Apure, Bolívar y Amazonas de Venezuela. *Characidium longum* se distingue de las otras especies del género por su cuerpo extremadamente alargado y por su patrón de pigmentación distintivo que consiste de una serie de al menos 13 bandas negras verticales, cada una con un punto de pigmento concentrado en el flanco medio-lateral, unidas en el dorso por una serie de bandas marrón-rojizas.

Palabras claves: *Characidium*, especie nueva, Venezuela, Orinoco, Caura, Casiquiare, Cinaruco, Capanaparo

Introduction

This new species of *Characidium* Reinhardt, 1867, brings the total for the genus to about 50 valid species (Buckup, 2003). All are small fishes, ranging from about 20 to 80 mm SL, and are usually associated with moving water, often in riffle habitats, similar to most North American darter species of the family Percidae. They are members of the family Crenuchidae, the monophyly of which was recently established by Buckup (1993b, 1998), who also established the monophyly of *Characidium*, although this is supported only by one synapomorphy: a black spot near base of middle caudal fin rays, which is sometimes secondarily lost or modified. Their known distributions extend from Panamá to Argentina. In his review of the family, Buckup (1993a) examined material of this species and all other Venezuelan species available for study, and described several new genera and species: *Leptocharacidium omospilum*, *Ammocryptocharax minutus*, *Melanocharacidium compressus*, *M. dispilomma*, *M. melanopteron*, *Odontocharacidium aphanes*, *Microcharacidium gnomus*, and *Microcharacidium weitzmani*. Since this review, no one has worked with the numerous other undescribed Venezuelan species.

Materials and methods

All measurements were taken using dial calipers to the nearest 0.1 mm. Counts of fin rays and scales were made using a dissecting microscope. Counts and measurements procedures follow those described in Buckup (1993a). All body-length measurements are given in standard length (SL). Numbers of specimens and body lengths of paratypes are listed in that order, as for example "(2, 30.0-33.7)," which indicates two specimens in the series, ranging from 30.0-33.7 mm standard length. For those specimens for which range in standard length is not indicated, the specimens are presumed not to have been measured. Geographic names for water bodies have usually been left in Spanish, as originally recorded on field collections sheets.

Museum abbreviations

Museum collection abbreviations follow those in Leviton et al (1985), but are repeated here for ease of reference: ANSP: Academy of Natural Sciences, Philadelphia, USA; AUM Auburn University Museum, USA; EBRG Estación Biológica Rancho Grande, MARN, El Limón (Maracay), Venezuela; FMNH: Field Museum of Natural History, Chicago, USA; MBUCV: Museo de Biología, Universidad Central de Venezuela, Caracas; MHNLS Museo de Ciencias Naturales La Salle, Caracas, Venezuela; MCNG: Museo de Ciencias Naturales de la UNELLEZ en Guanare, Venezuela; MNRJ Museu Nacional, Rio de Janeiro Brazil; NRM Naturhistoriska Riksmuseet, Stockholm, Sweden.

Characidium longum, new species

(Fig. 1)

Holotype: MCNG 53371, 31.8 mm SL; Venezuela: Apure, Rio Capanaparo drainage: Caño La Guardia (06.84000°N, 67.32500°W), C. Montaña, 14 Mar 2005.

Paratypes (all from Venezuela): MCNG 52732 (33, 33.2–34.8), ANSP 180809 (1, 32.7), EBRG 9839 (1, 30.4), FMNH 116483 (1, 32.3), MBUCV 32712 (1, 29.2), MHNLS 18203 (1, 28.6), NRM 52454 (1, 30.1), MNRJ 28711 (5, 29.4–32.7), all collected with holotype; ANSP 159795 (1, 27.0), Amazonas: Rio Sipapo, about 4 km upstream from Pendare (04.86666°N, 67.71666°W), H. López *et al.*, 12 Nov. 1985; ANSP 180818 (2, 41.6–44.7), Amazonas: Rio Ventuari, village of Marueta at landing, 91 km ENE of Macuruco, 159 km ENE of San Fernando de Atabapo (4.31416°N, 66.29221°W), M. Sabaj *et al.*, 6 Apr. 2004; ANSP 182783 (1, 33.7) Amazonas: Rio Manapiare: 10 km NW of San Juan de Manapiare (05.38694°N 66.95000°W); AUM 42937 (1, 45.0), Amazonas: Rio Orinoco, beach on island in middle of river, 32 km SSE of Manaka, 91 km ESE of San Fernando de Atabapo (03.70278°N, 66.96112°W), N. Lujan *et al.*, 3 Mar. 2005; AUM 42938 (1, 41.0), Amazonas: Rio Orinoco, 117 km E of La Esmeralda (03.28988°N, 66.60004°W), N. Lujan *et al.*, 29 Mar. 2005; AUM 42940 (2), Amazonas: Rio Casiquiare, 153 km NE of San Carlos de Rio Negro (02.79877°N, 66.00652°W), N. Lujan *et al.*, 24 Mar. 2005; FMNH 103919 (1, 41.0), Amazonas: Rio Cataniapo at bridge crossing ca. 5 km from Puerto Ayacucho just below small rapids, B. Chernoff *et al.* 21 Jan. 1991; FMNH 103923 (1, 35.0), Amazonas: Rio Sipapo about 1 km above mouth of Rio Cuao (06.95700°N, 67.72000°W), B. Chernoff *et al.*, 8 Feb. 1992; FMNH 109945 (1, 28.0), Bolivar: Rio Icutú, at mouth of Caño Wani (06.07450°N, 67.92000°W), F. Provenzano *et al.*, 6 Dec 2000; FMNH 109946 (2), Bolivar: Caño Wani, (06.07971°N, 67.92221°W), F. Provenzano *et al.*, 6 Dec. 2000; MBUCV 14090 (1), Amazonas: Rio Cataniapo, Port of the community of Las Pavas (05.56666°N, 67.55555°W), R. Royero *et al.*, 24 Jan 1969; MBUCV 14531 (1), Amazonas: Rio Cataniapo, Beaches upstream from base camp; R. Royero *et al.*, 25 Jul. 1982; MBUCV 25850 (1), Amazonas: Rio Orinoco, 0.5 km up from La Esmeralda on beach (03.11666°N, 65.55000°W), B. Chernoff *et al.*, 12 Mar 1987; MBUCV 30585 (2), Bolivar: Rio Caura, Rio Nichare island on the main channel Wakawakai (6.32250°N, 64.95366°W), F. Provenzano *et al.*, 6 Dec. 2000; MBUCV 31743 (1), Bolivar: Rio Caura, Rio Nichare in creek close to Tawadu River near of the Dedemai station (06.35150°N, 64.99850°W), F. Provenzano *et al.* 7 Dec. 2000; MCNG 21641 (6, 38.5–43.0), Amazonas: Rio Guayapo 149 km from its confluence with the Río Sipapo (04.38333°N, 67.03333°W), L. Nico & E. Guayamare, 20 May 1989; MCNG 22400 (6, 40–45.6), Bolívar: Rio Nichare, beach at base of Icutú Falls, in first stream on right traveling downstream (05.88333°N, 64.85000°W), D. Taphorn, *et al.*, 12 Dec. 1989; MCNG 22545 (2, 43.1–44.6), Bolívar: upper Río Nichare, at gravel beach upstream from Caño Icutú (06.08194°N, 64.91667°W), D. Taphorn *et al.*, 15 Mar. 1989; MCNG 22872

(15, 47.7–48.4), Bolívar, Río Nichare, Alto Río Nichare (06.0850°N, 64.93417°W), D. Taphorn *et al.*, 18 Mar. 1989; MCNG 23008 (2, 36.2–51.7), Bolívar: Río Nichare, Caño Tabaro 3 km up from mouth of Río Nichare (06.36722°N, 64.96694°W), D. Taphorn *et al.*, 24 Mar. 1989; MCNG 23797 (12, 38.1–40.7), Amazonas, Río Matacuni, in front of campsite N° 4 (03.6830°N, 65.00277°W), B. Stergios, 25 Jan. 1990; MCNG 34823 (4, 33.2–42.3), Bolívar: Río Nichare, La Raya rapids, 1 km from mouth of Río Nichare, (06.55000°N, 64.84167°W), D. Rodríguez *et al.*, 30 Mar. 1997; MCNG 35024 (2, 34.8–36.5), Amazonas: Río Casiquiare, playa de Macanilla (02.43306°N, 66.45472°W); K. Winemiller & D. Jepsen, 31 Jan. 1997; MCNG 35913 (1, 36.6): Amazonas: Río Orinoco, Raudales Las Perezas (04.77965°N, 67.4575°W); O. León, 10 Sept. 1997; MCNG 36596 (1, 41.2), Bolívar: Río Caura, El Playón at Salto Para, (06.31666°N, 64.48333°W); D. Rodríguez *et al.*, 28 Mar. 1997; MCNG 39251(1, 29.2), Apure: Río Cinaruco, downstream from Laguna Larga (06.54167°N, 67.40139°W), A & J. Arrington, 11 Jan. 1999; MCNG 39630 (7, 34.6–24.7), Apure: Río Cinaruco (06.54194°N, 67.40861°W), A. & J. Arrington, 11 Feb. 1999; MCNG 40644 (1, 31.4), Apure: Río Cinaruco (06.54194°N, 67.40861°W), A. & J. Arrington, 19 Mar. 1999; MCNG 49728 (1, 29.0), Bolívar: Río Parguaza, near town of Parguaza (06.26000°N, 67.12450°W), S. Willis & C. Montaña, 10 Jan. 2004; MCNG 52460 (29, 31.2–22.8), Apure: Río Capanaparo at Caño La Guardia (06.54444°N, 67.33054°W), C. Montaña, 20 Nov. 2005; MCNG 52653 (42), Apure: Río Capanaparo at Caño La Guardia (06.54444°N, 67.33054°W), C. Montaña, 15 Mar. 2005; MCNG 53074 (10, 28.7–38.8), Apure: Río Capanaparo at Caño La Guardia (06.54444°N, 67.33054°W), C. Montaña, 24 Feb. 2005; MCNG 53272 (165, 33.7–34.8 mm), Apure: Río Capanaparo at Caño La Guardia (06.54444°N, 67.33054°W); C. Montaña, 30 Nov. 2004; MHNLS 16694 (1, 36.7), Amazonas: Caño Gavilán, left bank tributary of Río Cataniapo (05.54138°N, 67.39083°W), J. Fernández, 25 Mar. 2002; MHNLS 16937 (2, 40.4–45.7), Amazonas: Río Cataniapo (rapids with aquatic vegetation); J. Fernández, 25 Apr. 2002.

Non-type material examined (included on distribution map), all from Venezuela: MCNG 15973 (1), Bolívar: Río Chaviripa at the bridge on Caicara–Puerto Ayacucho road (07.13333°N, 66.50000°W), D. Taphorn *et al.*, 16 Apr. 1984; MCNG 17971 (2), Apure: Río Cinaruco about 75 minutes by boat from mouth, (06.62778°N, 67.20278°W), D. Taphorn & B. Stergios, 31 Dec. 1986; MCNG 20862 (1), Bolívar: upper Río Nichare, at beach of stones, upstream from Caño Chiguire (06.01556°N, 64.97944°W), D. Taphorn, *et al.*, 17 Mar. 1989; MCNG 21178 (3), Bolívar: Río Nichare, downstream from Caño Icutú (06.10000°N, 64.916647°W), D. Taphorn & J. Pulido, 15 Mar. 1989; MCNG 21513 (4), Bolívar: Río Nichare, pool in front of Icutú Falls, on beaches (5.88361°N, 64.85000°W), D. Taphorn, *et al.*, 10 Mar. 1989; MCNG 21876 (3), Amazonas: Río Orinoco, Isla Trucoapure beaches (03.00028°N, 67.66666°W), L. Nico & J. Castillo, 13 Feb. 1990; MCNG 22318 (1), Amazonas: Río Guayapo at Aguacate rapids, not far from the confluence with Río Sipapo (4.33333°N, 67.50000°W), L. Nico & E. Guayamare, 25 May

1989; MCNG 22423 (1), Bolívar: upper Rio Nichare, mud and sand beach (06.08694°N, 64.93417°W), D. Taphorn *et al.* 18 Mar. 1989; MCNG 22484 (2), Bolívar: Río Nichare (06.10278°N, 64.92500°W), D. Taphorn & E. Sutton, 17 Mar. 1989; MCNG 22787 (3), Bolívar: small tributary of Caño Tabaro (05.88388°N, 64.85000°W), D. Taphorn *et al.*, 22 Mar. 1989; MCNG 24009 (4), Amazonas: Río Ocamo at Caño Jayuvapuei (03.05000°N, 64.64167°W), L. Nico, 28 Jan. 1990; MCNG 25885 (1), Amazonas: Río Orinoco, downstream from town of Cariche (03.03333°N, 66.41667°W), L. Nico *et al.*, 20 Jan. 1991; MCNG 26073 (2), Amazonas: Río Siapa, 176 km upstream from its confluence with Río Casiquiare (01.41667°N, 65.68333°W), A. Barbarino & F. Morillo, 17 Apr. 1991; MCNG 35152 (3), Amazonas: Río Casiquiare, sandy beach (2.39722°N, 66.51389°W), K. Winemiller & D. Jepsen, 28 Jan. 1997; MCNG 39179 (10), Apure: Río Cinaruco, upstream from Laguna Larga (06.55250°N, 67.42417°W), A. & J. Arrington, 11 Jan. 1999; MCNG 39184 (2), Apure: Río Cinaruco, upstream from Laguna Larga (06.55250°N, 67.42472°W), A. & J. Arrington, 11 Jan. 1999; MCNG 39197 (3), Apure: Río Cinaruco, upstream from Laguna Larga (06.53889°N, 67.42250°W), A. & J. Arrington, 11 Jan. 1999; MCNG 39453 (3), Apure: Río Cinaruco, downstream from Laguna Larga (06.55611°N, 67.37583°W), A. & J. Arrington, 16 Jan. 1999; MCNG 39576 (1), Apure: Río Cinaruco (06.54167°N, 67.40139°W), A. & J. Arrington, 10 Feb. 1999; MCNG 39600 (3), Apure: Río Cinaruco (06.53889°N, 67.42250°W), A. & J. Arrington, 11 Feb. 1999; MCNG 44419 (1), Apure: Río Cinaruco beach upstream from Laguna Larga (06.55250°N, 67.42466°W), C. Layman, 15 Jan. 2001; MCNG 44498 (3), Apure: Río Cinaruco (06.54056°N, 67.41500°W), C. Layman, 15 Feb. 2001; MCNG 43678 (2), Amazonas: Río Negro, about 1 km upstream from San Carlos de Río Negro (01.91666°N, 67.08333°W), L. Nico *et al.*, 5 Jan. 1999.

Diagnosis

Characidium longum is distinguished from all congeners by its extremely elongate body (greatest body depth at dorsal fin origin 9.3–15.8 % SL, mean 12.6) and a pigmentation pattern of 13 or more thin black vertical bars along the sides (each with a concentrated spot of pigment on the midlateral line), which are united dorsally with reddish-brown blotches that cross the dorsum.

Characidium longum shares a similar pigmentation pattern of vertical bars with *Characidium catenatum* Eigenmann, 1909, described from Guyana, and *Characidium zebra* Eigenmann, 1909, described from the Río Maripicru, a branch of the Ireng of the upper Río Branco drainage of Brazil; as well as *Characidium fasciatum* Reinhardt, 1866. Schultz (1944) described *Characidium chupa* from the Río Chama, in the Lake Maracaibo basin, and indicated that this species also occurs in the Orinoco basin, including the upper Río Apure and Río Torbes (also see Buckup, 2003). Although these species (or similar forms) are present in Venezuela, they have at most 10 vertical bars, vs. 13 or more bars in *Characidium longum*. *C. longum* shares its characteristic pigmentation pattern of reddish-

brown blotches on the dorsum (in both live and freshly preserved material) with the sympatric congeners *C. pellucidum* Eigenmann, 1910 and *C. pteroides* Eigenmann, 1909. However, neither of the latter two species has well-defined black vertical bars on the flanks. *C. pellucidum* has only a row of dark dots along the lateral midline, and *C. pteroides* has a series of irregularly placed reddish-brown crescents over a pale cream background (Figs. 2 and 3).

Description

Based on holotype (41.2 mm SL) and 20 paratypes (29.0–52.0 mm SL, mean 39.5), and with notes on variation among smaller specimens and non-type material. This size range is medium to large among Venezuelan species of *Characidium*. Measurements and counts are summarized in Table 1. Sexes appear to be isomorphic.



FIGURE 1. Holotype of *Characidium longum*, MCNG 53371, 31.8 mm SL. Venezuela: Apure state, Rio Capanaparo drainage, Caño La Guardia.

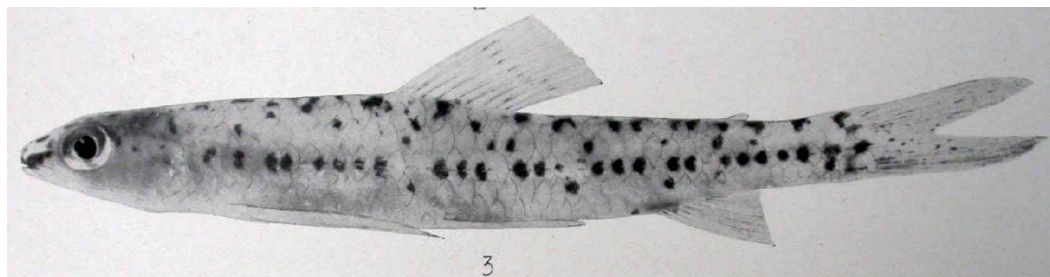


FIGURE 2. *Characidium pellucidum* (holotype). Plate 39-3 in Eigenmann (1912). Guyana: Gluck Island.

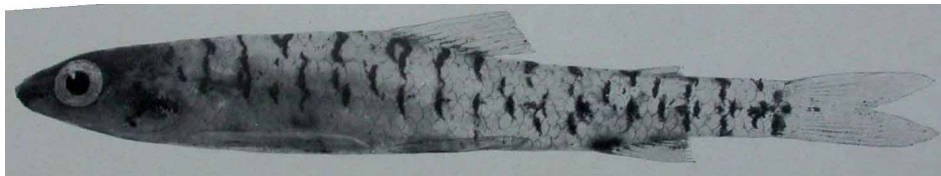


FIGURE 3. *Characidium pteroides* (holotype). Plate 39-6 in Eigenmann (1912). Guyana: Konawaruk.

TABLE 1. Morphometric data for 21 specimens of *Characidium longum*.

	Mean	Min	Max	SD
TL mm	47.5	35.5	61.9	7.1
SL mm	39.5	29	52	6.2
Percent SL				
Head length	22.4	17.2	25	1.8
Prepectoral Distance	21.4	16.7	25.5	1.8
Predorsal distance	42.3	31.6	48.5	3.1
Prepelvic distance	43.3	33.4	48.7	2.8
Preanal Distance	74.8	57.6	80.4	4.4
Anal-apex Distance	87.8	68.6	95.0	4.8
Body Width	11.0	9.0	13.1	1.3
Body Depth at dorsal origin	12.6	9.3	15.8	1.6
Body Depth at anal origin	9.2	7.5	11.0	0.8
Caudal Peduncle Depth	6.5	4.4	7.4	0.7
Percent HL				
Snout Length	6.2	4.9	7.1	0.6
Snout-maxillary tip	5.0	3.0	7.6	1.1
Anterior nostril - orbit	2.9	2.1	3.8	0.4
Posterior nostril - orbit	1.2	0.7	1.8	0.3
Cheek	2.3	1.5	3.3	0.4
Orbital Diameter	7.2	5.7	9.2	1.0
Interorbital Distance	2.6	1.9	4.6	0.6

Body elongate and spindle shaped, not very compressed laterally. In alcohol the body is almost square in transverse section, probably as a result of shrinkage. Head dorsal profile straight, but many individuals were preserved with head arched up. Ventral profile strongly concave from tip of snout to isthmus. Dorsal profile only slightly convex from head to base of caudal fin. Ventral profile slightly convex from dentary tip to posterior anal fin, and straight between anal and caudal fin bases. Profile of tip of snout vertical. Greatest body depth just anterior to dorsal fin origin.

Mouth small, subterminal. Maxilla short, posterior end rounded and reaching vertical line downward from posterior nares, but not reaching anterior edge of orbit. Orbit oval-shaped, but not precisely oriented with horizontal axis of body; dorsal margins of eyes reaching, or sometimes elevated, above dorsal profile of head; eyes much longer than snout length; forming slight depression in interorbital space. Bony interorbital very narrow. Cheek height less than one-third of horizontal orbital diameter. Nares distinctly separated; posterior nostrils considerably closer to eye than to anterior nostrils; no dermal

flaps on either nostril, but rims of each elevated above body to form raised rim. Supraorbital present and having a sensory canal.

Scales cycloid. Lateral line complete, containing 38–40 scales (counts: 38 [1], 39 [8], 40 [8]). Scale rows above and below lateral line 3 each. Circumpeduncular scales 12. Predorsal scales 9 (3), 10 (17). Isthmus and area between pectoral fin bases completely scaled. Caudal fin with sheath of scales extending caudally for more than half its length. Last scale in series on dorsal and ventral caudal-fin lobes larger than the rest.

Dorsal-fin rays ii,7 (2), ii,8 (3), ii,9 (15). Anal-fin rays ii,6 (21). Pectoral-fin rays iii,10 (14), iii,11(7). Pelvic-fin rays i,7 (2), i,8 (18), i, 9 (1). Caudal fin rays 11–10 (21). Adipose fin present, situated above posterior end of anal fin base.

All teeth tricuspid, with approximately equal cusps. Usually six small teeth arranged in one row on each side of both premaxilla and dentary. Maxilla toothless.

Gill rakers usually three short, widened stubs, best developed on dorsal portion of first arch, followed by one or two rudiments.

Pigmentation in alcohol (Fig. 1)

Base color of head and body creamy white. Snout with black stripe, which starts on maxilla and ends beneath posterior nostril. Premaxilla and area on dorsum of head between nares with sparse melanophores. Brain visible through dermal tissue, but covered with scattered melanophores that are concentrated into a black dot at posterior edge of brain, just in front of first predorsal scale. Ventral portion of head immaculate; eye densely covered with black pigment on upper two thirds; ventral portion white. Posterior border of head between upper edge of opercle to posterior part of brain with narrow black bar that forms an “L,” with short stripe of black pigment on upper edge of opercle. Dorsum with a series of about 13 clusters of reddish-brown pigment; same pigment outlines dorsal scales and sometimes becomes aligned to form an X pattern across dorsum; ventral-most reddish-brown pigment usually aligned with uppermost edge of black vertical bars on sides. Sides with series of thin vertical bars, often double, with concentrated dots of black pigment on lateral line scales, the bars not extending down to ventrum. Spot of black pigment, diagnostic of the genus *Characidium* (Buckup, 1993a,b) present at base of central caudal fin rays. Mid-ventral line behind pelvic fin base with thin single row of melanophores that ends before reaching anal origin. Anal-fin origin and base with concentration of black pigment, which forms a conspicuous dot. Pelvic fin with similar spot at origin. Dorsal fin with posterior rays thinly outlined in black posteriorly; adipose fin without pigment; caudal fin with spots of deep pigment at base of both upper and lower lobes (separate from similar dot at center of caudal fin base); central portion of caudal-fin rays thinly outlined, with melanophores that form a diffuse vertical bar when fin is closed. Anal fin with first five rays darkly pigmented near base. Pelvic and pectoral fins transparent.

Life colors

No photographs of living specimens are available. Live fish are similar to those described in alcohol, but the body is almost transparent, rather than whitish.

Distribution, habitat and diet (Figs. 4 and 5)

So far these fish have been found in the lower rios Capanaparo and Cinaruco of southern Apure state, in various rivers of the upper Orinoco basin, and the middle Rio Caura drainage. We have seen photographs of specimens from the Rio Morichal Largo system in Monagas state, Venezuela, and the upper Río Negro in Brazil that probably are this species.

Most specimens have been collected over sandy beaches in flowing, clear or tea-colored, shallow water along shore (Fig. 4). We examined the contents of fifty stomachs and found that these fishes feed primarily on benthic aquatic invertebrates taken from the sand. Copepods were dominant, followed by water mites and chironomid larvae, with occasional items including ostracods and larvae of Ephemeroptera, Trichoptera, Coleoptera and Diptera.

Etymology

From the Latin adjective *longus* (-a, -um), long, in reference to the extremely elongated body of this new species.



FIGURE 4. Typical habitat for *Characidium longum*. Shallow sandy beaches of large to moderate sized rivers. The river shown is the Cinaruco, in southern Apure state, Venezuela.

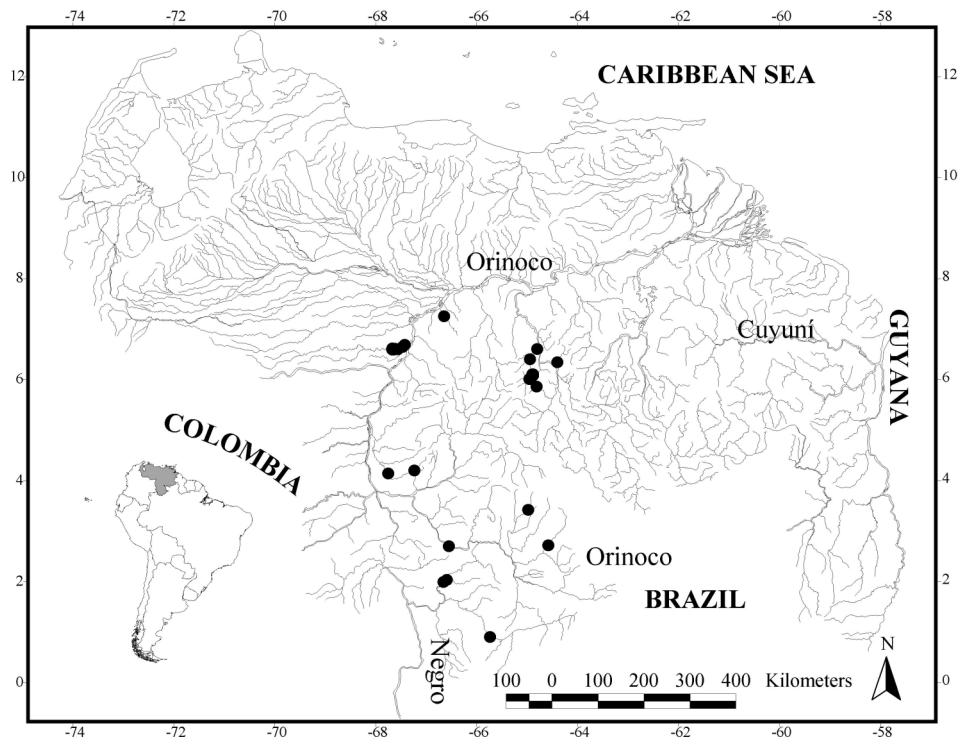


FIGURE 5. Distribution map for *Characidium longum*.

Discussion

We are studying five additional species of *Characidium* from the western llanos of Venezuela, and preliminary results indicate that these all may prove to be new species. Four of these are considered to be Venezuelan representatives of *Characidium catenatum*, *C. zebra*, *C. pteroides* and *C. pellucidum*, described from neighboring drainages in Guyana or northern Brazil; and one is a stocky, deep-bodied, vertically striped form for which we have not yet determined its closest relationships. *C. catenatum* was considered to be a synonym of *C. steindachneri* by Buckup (2003), a species described from Peru. Therefore, the four Guyanan species are also in need of taxonomic revision. As Souto de Melo and Buckup (2002) have noted, species of the genus *Characidium* have not yet been adequately classified into subgroups, so we cannot presently propose a theory of relationships for the new species.

Characidium longum is similar to characidiin species of the genus *Ammocryptocharax* Weitzman & Kanazawa, 1976, in having an elongate, spindle-shaped body. However, in addition to the unique pigmentation pattern already described, *C. longum* lacks teeth on the maxilla and has a subterminal mouth, rather than the ventrally positioned mouth characteristic of *Ammocryptocharax* species.

The species of *Characidium*, as the genus is currently defined (Buckup, 1993a–b), occupy several very distinct niches in tropical fresh waters. All species examined so far feed on aquatic invertebrates, but obtain them from very different habitats. Our typical appreciation of what have been called “South American Darters” applies to many species living in the riffles of Andean mountain streams. *C. longum* is one of several species that occurs over white sand beaches in lowland habitats with low sediment loads, strong flow, and tea-colored waters. Still others live in sluggish savannah streams, amongst aquatic vegetation.

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