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# A new species of *Aspidoras* (Siluriformes: Callichthyidae) from a small coastal drainage in northeastern Brazil

Lívia M. A. Oliveira[1], Angela M. Zanata[1], Luiz F. C. Tencatt[2] and Marcelo R. Britto[3]

A new species of *Aspidoras* from the rio da Dona basin, a small coastal river drainage in Bahia State, is described herein. The new taxon differs from its congeners by presenting infraorbital 1 with well-developed ventral laminar expansion, nuchal plate nearly reaching to or sometimes contacting posterior process of parieto-supraoccipital, anterior tip of nuchal plate just posterior to dorsal margin of first dorsolateral body plate, and blotches on dorsal half of dorsolateral body plates and/or ventral half of ventrolateral body plates fused with midlateral series of blotches, forming three or four enlarged and oblique black blotches.

**Keywords:** Aspidoradini, Bahia, Corydoradinae, Neotropical region, Taxonomy.

Uma nova espécie de *Aspidoras* da bacia do rio da Dona, uma pequena drenagem costeira do estado da Bahia, é aqui descrita. O novo táxon difere de suas congêneres por apresentar infraorbital 1 com expansão laminar ventral bem desenvolvida, placa nucal quase alcançando ou alcançando o processo posterior do parieto-supraoccipital, extremidade anterior da placa nucal apenas posterior à extremidade dorsal da primeira placa dorsolateral, e três ou quatro manchas pretas grandes na porção lateral mediana do corpo, geralmente inclinadas anterodorsalmente e conectadas à série de manchas dorsais e fusionadas à série ventral de manchas.

**Palavras-chave:** Aspidoradini, Bahia, Corydoradinae, Região Neotropical, Taxonomia.

## Introduction

*Aspidoras* Ihering, 1907 comprises 22 valid species (Eschmeyer *et al*., 2016) of small armored catfishes that are relatively broadly distributed in Brazil, mainly in the central and northeastern regions. The only comprehensive study regarding the taxonomy of *Aspidoras* is by Nijssen, Isbrücker (1976), who redescribed the nominal species and described nine new ones. The monophyly of *Aspidoras* is more deeply investigated and currently well accepted (see Reis, 1998; Britto, 2003; Alexandrou *et al.*, 2011). According to Britto (2003), the *Aspidoras* clade is supported by five synapomorphies: (I) posterior portion of mesethmoid wide, (II) frontal fontanel reduced, (III) parieto-supraoccipital with circular fossa, (IV) operculum compact, and (V) ossified portion of the pectoral spine very small, less than half the length of first branched ray.

Almost half of the known species of *Aspidoras* were described from northeastern Brazil: *A. carvalhoi* Nijssen & Isbrücker, 1976, from rivers around Guaramiranga, Ceará; *A. depinnai* Britto, 2000, from the rio Ipojuca basin, Pernambuco; *A. maculosus* Nijssen & Isbrücker, 1976, from the rio Itapicuru basin, Bahia; *A. menezesi* Nijssen & Isbrücker, 1976, from the rio Jaguaribe and rio Salgado basins, Ceará; *A. psammatides* Britto, Lima & Santos, 2005, from the rio Paraguaçu basin, Bahia; *A. raimundi* (Steindachner, 1907), from rio Parnaíba basin, Maranhão; *A. rochai* Ihering, 1907, from coastal drainages around Fortaleza, Ceará; *A. spilotus* Nijssen & Isbrücker, 1976, from the rio Acaraú basin, Ceará; and *A. virgulatus* Nijssen & Isbrucker, 1980, from coastal streams between Linhares and São Mateus, Espírito Santo. After the analysis of material from the rio da Dona basin, a small coastal drainage that runs through the Atlantic Forest in Bahia State, a new species was revealed and is described herein.

[1]Departamento de Zoologia, Instituto de Biologia, Universidade Federal da Bahia, Campus de Ondina, Rua Barão de Geremoabo s/n, 40170-115 Salvador, BA, Brazil. (LMAO) livia.alves.oliveira@hotmail.com, (AMZ) zanata.angela@gmail.com (corresponding author)
[2] Programa de Pós-Graduação em Ecologia de Ambientes Aquáticos Continentais, Universidade Estadual de Maringá, Av. Colombo, 5790, 87020-900 Maringá, Paraná, Brazil. luiztencatt@hotmail.com
[3]Setor de Ictiologia, Departamento de Vertebrados, Museu Nacional, Universidade Federal do Rio de Janeiro, Quinta da Boa Vista, 20940-040 Rio de Janeiro, RJ, Brazil. mrbritto2002@yahoo.com.br

## Material and Methods

Morphometric and meristic data follow Reis (1997), with modifications of Tencatt *et al.* (2013). Measurements were obtained using digital caliper to the nearest 0.1 mm. Standard length (SL) is expressed in mm and all other measurements are expressed as percents of standard length, with the exception of subunits of the head, which are expressed as percents of head length (HL). Osteological analysis was performed on cleared-and-stained (c&s) specimens, prepared according to the protocol of Taylor, Van Dyke (1985). Material fixed directly in alcohol (mol) is given after the total number of specimens. Osteological terminology follows Reis (1998), except for parieto-supraoccipital instead of supraoccipital (Arratia, Gayet, 1995), compound pterotic instead of pterotic-supracleithrum (Aquino, Schaefer, 2002), and scapulocoracoid instead of coracoid (Lundberg, 1970). The suprapreopercle *sensu* Huysentruyt, Adriaens (2005) is treated here as a part of the hyomandibula according to Vera-Alcaraz (2013). Vertebral counts follow Britto *et al*. (2009). Frequencies of counts are given in parentheses in the text, and an asterisk indicates values for the holotype. Nomenclature of latero-sensory canals follows Schaefer, Aquino (2000), and that of preopercular pores follows Schaefer (1988). Homologies of barbels follow Britto, Lima (2003). Comparative data of *Aspidoras brunneus* were obtained from its original description and/or high resolution photographs of type-specimens available from the All Catfish Species imagebase (NSF DEB-0315963). Museum collection codes follow Sabaj (2016).

## *Aspidoras kiriri,* new species

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**(Figs. 1-5; Tab. 1)**

**Fig. 1.** *Aspidoras kiriri*, holotype, MNRJ 47400, 30.6 mm SL, Brazil, Bahia, Serra da Jibóia, Varzedo, rio da Dona basin, riacho Cai-Camarão. Dorsal, lateral and ventral views.

**Fig. 2.** *Aspidoras kiriri*, holotype, MNRJ 47400, 30.6 mm SL, Brazil, Bahia, Serra da Jibóia, Varzedo, rio da Dona basin, riacho Cai-Camarão. Lateral view. Photographed in life.

**Holotype.** MNRJ 47400, 30.6 mm SL, Brazil, Bahia, Varzedo, riacho Cai-Camarão, rio da Dona basin, 12°57'35,9"S, 39°26'54,9"W, 303 m above sea level, 27 Aug 2013, A. M. Zanata, A. R. Calor.

**Paratypes.** All from Bahia, Brazil. Rio da Dona basin: MNRJ 47399, 2, 27.8-22.2 mm SL, same locality as holotype, 28 Jul 2013, A. Calor, V. Gomes, A. Medeiros. MNRJ 47401, 5, 18.4-24.8 mm SL; UFBA 7712, 10, 11.1-27.7 mm SL; Varzedo, on road between Taboleiro de Castro and Castro Alves, rio Sururu, 12º52'59.5"S, 39º26'55.3"W, 244 m above sea level, 8 Jul 2011, A. M. Zanata. MZUSP 120443, 2, 23.8-24.8 mm SL; UFBA 7352, 2, 1 c&s, 26.4-27.8 mm SL; Varzedo, on road between Taboleiro de Castro and Castro Alves, rio Sururu, 12º52'59.5"S, 39º26'55.3"W, 244 m above sea level, 29 Apr 2013, A. M. Zanata, L. Oliveira, R. Burger, R. O. Abreu. MZUSP 120444, 4, 18.0-28.8 mm SL; NUP 18245, 3, 12.9-30.0 mm SL; NUP 18246, 1 c&s, 30.4 mm SL; UFBA 8119, 5, 17.0-27.4 mm SL; ZUFMS 4877, 3, 19.2-27.7 mm SL, same locality as holotype, 9 Jun 2016, A. M. Zanata. UEFS 7125, 1, 33.4 mm SL, Serra da Jibóia, rio Sururu, 18 Feb 2005, E. M. C. Neto. UFBA 7111, 2, 26.4-28.0 mm SL, same locality as holotype, Mar 2012, F. Quinteiro, T. Duarte, I. Garcia. UFBA 7426, 3, 20,9-27,5 mm SL, same locality as holotype, 28 Jun 2013, A. Calor, V. Gomes, A. Medeiros. UFBA 7435, 2, 26.5-28.6 mm SL, same locality as holotype, 13 Jul 2013, A. Calor, V. Gomes, A. Medeiros. UFBA 7453, 1, 30.9 mm SL; UFBA 7458, 3, 1 c&s, 1 mol, 23.4-30.8 mm SL, collected with holotype. UFBA 7719, 1, 35.6 mm SL, same locality as holotype, 21 Jan 2014, L. Oliveira, A. Calor, A. Medeiros.

**Diagnosis.** *Aspidoras kiriri* is distinguished from congeners, with exception of *A. carvalhoi*, *A. fuscoguttatus*, *A. lakoi*, *A. maculosus*, *A. marianae*, *A. menezesi*, *A. poecilus*, *A. raimundi*, *A. rochai* and *A. spilotus*, by having the infraorbital 1 with well-developed ventral laminar expansion (*vs.* poorly to moderately developed in remaining species, see Britto, 1998: 363, fig. 5). The new species is distinguished from *A. carvalhoi*, *A. fuscoguttatus*, *A. lakoi*, *A. maculosus* and *A. rochai* by having the nuchal plate nearly reaching or sometimes contacting the posterior process of parieto-supraoccipital, with the anterior tip of nuchal plate just posterior to the dorsal margin of first dorsolateral body plate (*vs.* nuchal plate relatively distant from posterior process of parieto-supraoccipital, with anterior tip of nuchal plate just posterior to second dorsolateral body plate); from *A. menezesi*, *A. poecilus*, *A. raimundi*, and *A. spilotus* by having blotches on the dorsal half of dorsolateral body plates and/or ventral half of ventrolateral body plates fused with midlateral series of blotches, forming three or four enlarged and oblique black blotches (*vs.* blotches on dorsal half of dorsolateral body plates and/or ventral half of ventrolateral body plates not fused with midlateral blotches; blotches not oblique).

**Description.** Morphometric data of holotype and paratypes in Tab. 1. Head compressed with slightly convex dorsal profile overall; bluntly triangular in dorsal view. Snout relatively large and pointed. Dorsal profile convex along snout; somewhat straight along interorbital region; slightly convex from that point to dorsal-fin origin; slightly convex along dorsal-fin base; straight to slightly concave from end of dorsal-fin base to adipose-fin spine; slightly concave along caudal peduncle. Ventral profile slightly convex from isthmus to anal-fin origin; slightly concave from that point to caudal-fin base. Body elongate; roughly elliptical in cross section at pectoral girdle, gradually becoming more compressed toward caudal fin.

Eye rounded, dorsolaterally positioned on head; orbit delimited dorsally by lateral ethmoid, frontal and sphenotic, ventrally by infraorbitals. Anterior and posterior nares close to each other, only separated by flap of skin. Anterior naris tubular. Posterior naris close to anterodorsal margin of orbit, separated from it by distance equal to naris diameter. Mouth

small, subterminal, width larger than orbital diameter. Maxillary barbel elongate, reaching to anteroventral limit of gill opening in most specimens. Outer mental barbel slightly longer than maxillary barbel. Inner mental barbel fleshy, with base close to its counterpart. Lower lip moderately developed, forming small semicircular fleshy flap. Small rounded papillae covering entire surface of all barbels, upper and lower lips, snout and isthmus. Gill membranes united to isthmus.

Four branchiostegal rays decreasing in size posteriorly. Hypobranchial 2 somewhat triangular, tip ossified and directed toward anterior portion, posterior margin cartilaginous, ossified portion well developed, about twice the size of cartilaginous portion. Five ceratobranchials with expansions increasing posteriorly; ceratobranchial 1 with small process on anterior margin of mesial portion; ceratobranchial 3 with continuous posterolateral margin; ceratobranchial 5 with long anterior portion and toothed on posterodorsal surface; 29-30 (3) teeth aligned in one row. Four epibranchials similar in size; epibranchial 2 slightly larger than others, with small pointed process on laminar expansion of posterior margin; epibranchial 3 with triangular uncinate process on laminar expansion of posterior margin. Two pharyngobranchials (3 and 4); pharyngobranchial 3 with triangular process on posterior margin. Upper tooth plate oval; 34-40 (3) teeth aligned in two rows on postero-ventral surface.

**Tab. 1**. Morphometric data of holotype and 20 paratypes of *Aspidoras kiriri*. The range includes the holotype. SD = standard deviation.

| | Holotype | Low-High | Mean | SD |
|---|---|---|---|---|
| Standard length (mm) | 30.6 | 20.9-33.4 | 26.9 | 3.2 |
| Percents of standard length | | | | |
| Length of head | 40.8 | 37.1-41.4 | 39.6 | 1.1 |
| Depth of body | 31.7 | 26.9-33.5 | 30.7 | 1.8 |
| Predorsal distance | 49.3 | 42.9-49.6 | 47.5 | 1.8 |
| Prepelvic distance | 49.0 | 44.6-51.4 | 47.9 | 1.6 |
| Preanal distance | 79.4 | 75.8-82.9 | 79.2 | 1.6 |
| Preadipose distance | 83.7 | 79.6-87.0 | 83.4 | 1.9 |
| Length of dorsal spine | 14.7 | 11.7-17.3 | 15.1 | 1.5 |
| Length of pectoral spine | 17.3 | 16.5-20.9 | 18.7 | 1.2 |
| Length of adipose-fin spine | 12.7 | 8.4-14.4 | 11.9 | 1.6 |
| Depth of caudal peduncle | 14.1 | 12.6-15.5 | 14.1 | 0.8 |
| Dorsal to adipose distance | 22.2 | 22.2-28.4 | 24.7 | 1.8 |
| Length of dorsal-fin base | 15.4 | 12.1-17.4 | 14.7 | 1.2 |
| Maximum cleithral width | 23.9 | 18.2-27.3 | 22.5 | 1.9 |
| Length of maxillary barbel | 21.9 | 16.8-26.1 | 21.7 | 2.5 |
| Percents of head length | | | | |
| Head depth | 69.6 | 65.1-75.3 | 71.7 | 2.4 |
| Least interorbital distance | 28.0 | 27.8-34.7 | 31.6 | 2.1 |
| Horizontal orbit diameter | 15.2 | 12.4-19.8 | 16.5 | 1.7 |
| Snout length | 42.4 | 37.4-46.5 | 42.0 | 2.6 |
| Least internarial distance | 15.2 | 12.8-19.3 | 16.9 | 1.6 |

Lateral-line canal entering neurocranium through compound pterotic, branching twice before entering sphenotic: pterotic branch with a single pore; preoperculomandibular branch conspicuously reduced, with a single pore close to postotic main canal. Sensory canal continuing through compound pterotic, entering sphenotic as temporal canal split into two branches: one branch giving rise to infraorbital canal, other branch entering frontal through supraorbital canal, both with single pore. Supraorbital canal branched, running through nasal bone. Epiphyseal branch of supraorbital canal relatively long; pore close to frontal fontanel; branch slightly shorter; pore closer to supraorbital main canal in some specimens. Nasal canal with three openings, first on posterior edge, second on posterolateral portion and third on anterior edge; second pore generally fused with first pore. Infraorbital canal running through entire second infraorbital, extending to infraorbital 1 and opening into two pores. Preoperculomandibular branch giving rise to preoperculo-mandibular canal, which runs through entire preopercle, leading to pores 3, 4, and 5, respectively.

Mesethmoid overall short, anterior tip relatively long, slightly more than 50% of entire length of bone (see Britto, 2003: 123, character 1, state 0; fig. 1A); posterior portion wide, entirely covered by thick layer of skin. Nasal slender, slightly curved laterally, mesial border contacting frontal and mesethmoid. Frontal elongate, relatively narrow, width less than half of entire length; anterior projection short, less than nasal length; anterior margin generally covered by thick layer of skin. Frontal fontanel relatively small, ellipsoid or somewhat rhomboid; posterior terminus not entering anterior margin of parieto-supraoccipital. Parieto-supraoccipital wide; posterior portion moderately developed, nearly reaching or sometimes contacting nuchal plate (Fig. 3). Parieto-supraoccipital fontanel small, roundish, located medianly on parieto-supraoccipital.

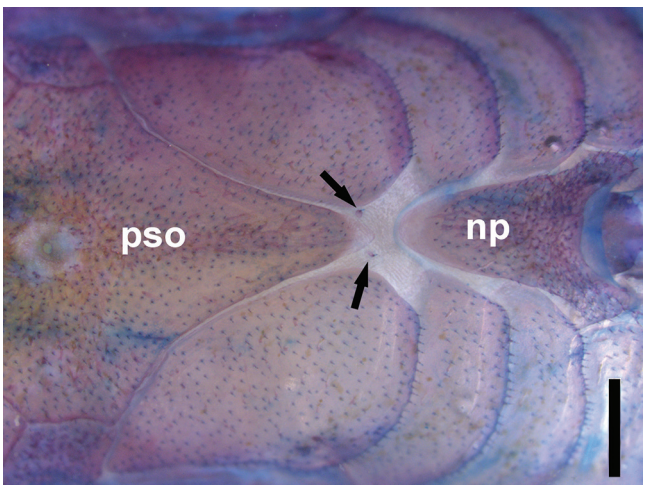


**Fig. 3.** *Aspidoras kiriri*, NUP 18246, c&s paratype, 30.4 mm SL, showing anterodorsal portion of body. Arrows indicate small platelets. Abbreviations: np: nuchal plate, pso: parieto-supraoccipital. Scale bar = 1 mm.

Two laminar infraorbitals, with diminute odontodes; infraorbital 1 large, with well-developed ventral laminar expansion; anterior portion with well-developed expansion; inner laminar expansion moderately developed, with anterior portion larger than posterior portion (Fig. 4); infraorbital 2 small, with posterior laminar expansion reduced; inner laminar expansion moderately developed; posteroventral margin contacting posterodorsal ridge of hyomandibula; dorsal tip contacting only sphenotic. Interopercle almost entirely covered by thick layer of skin; somewhat triangular; anterior projection moderately developed. Preopercle relatively slender, elongated. Opercle compact in shape; depth less than two times its width; free margin convex; posterodorsal region with shallow concavity; without serrations. Anteroventral portion of cleithrum exposed, posterolateral portion of coracoid exposed. All exposed areas bearing minute odontodes. Free vertebrae 23 (1), 24 (1); ribs 6 (2), first pair conspicuously larger.

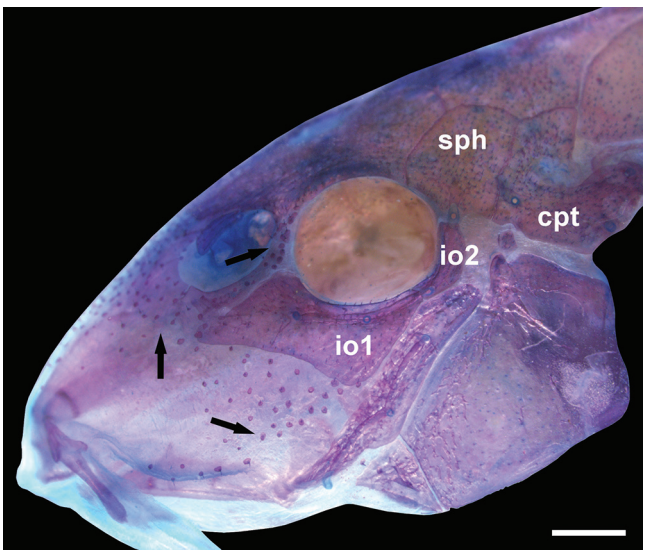


**Fig. 4.** *Aspidoras kiriri*, NUP 18246, c&s paratype, 30.4 mm SL, lateral view of the head. Arrows indicate small platelets. Abbreviations: cpt: compound pterotic, io1: infraorbital 1, io2: infraorbital 2, sph: sphenotic. Scale bar = 1 mm.

Dorsal-fin rays I,8* (22); inner margin of dorsal-fin spine smooth, without serrations. Nuchal plate moderately developed; almost entirely exposed, with minute odontodes on exposed area; anterior tip covered by thick layer of skin; spinelet short; spine moderately developed, adpressed distal tip almost reaching origin of last dorsal-fin branched ray; anterior margin with small odontodes. Pectoral-fin rays I,9* (5) I,10 (15), I,11(2); inner margin of pectoral spine with 9-20 moderately developed serrations along almost entire length; small region just posterior to origin of spine lacking serrations; serrations generally perpendicular to spine; some serrations slightly directed towards tip or origin of spine; bifid serrations present in some specimens; base of first branched rays with small laminar expansions along its inner margin, forming structures similar to serrations in some specimens (Fig. 5). Pelvic-fin rays i,5*(22). Anal-fin rays ii,5,i(10), ii,6*(12). Caudal-fin rays i6/5i(2), i6/6i*(20). Fins with minute odontodes over rays.

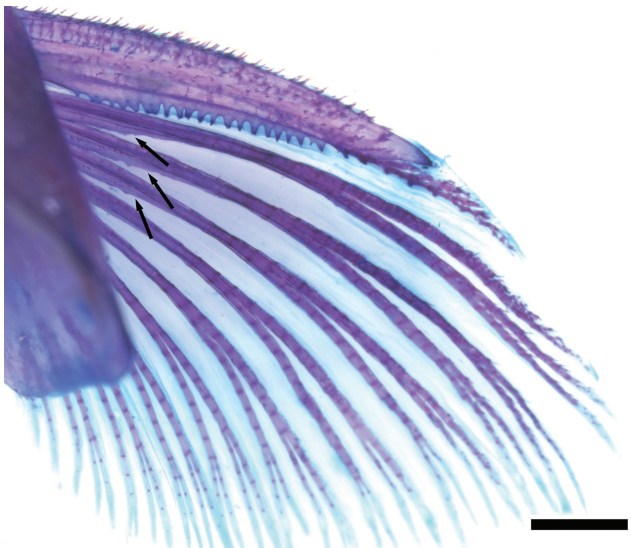

**Fig. 5.** *Aspidoras kiriri*, NUP 18246, c&s paratype, 30.4 mm SL, showing the serration pattern of pectoral spine. Arrows indicate laminar expansion at base of branched rays. Scale bar = 1 mm.

Three* laterosensory canals on trunk; first ossicle tubular; second ossicle laminar; third lateral-line canal encased in third dorsolateral body plate. Body plates with minute odontodes scattered over exposed area and conspicuous line of odontodes confined to posterior margin. Dorsolateral body plates not reaching their counterpart. Dorsolateral plates 25(5), 26*(15), or 27(2); ventrolateral plates 23(20) or 24(2); dorsolateral plates along dorsal-fin base 5(10) or 6*(12); dorsolateral plates between adipose and caudal fins 8*(5), 9(13), or 10(3); preadipose plates 3(3), 4*(13), or 5(6); small irregular plates covering base of caudal-fin rays; small plates disposed dorsally and ventrally between lateral plates on posterior portion of caudal peduncle. Small platelets covering dorsal and lateral portions of head including anterior margin of orbit, anterior expansion of infraorbital 1, and above lateral ethmoid (Fig. 4); region between nuchal plate and posterior process of parieto-supraoccipital generally with small platelets (Fig. 3). Ventral surface of trunk densely covered by small irregular platelets.

**Coloration in alcohol.** Ground coloration of body pale yellow to light brown (Fig. 1). Dorsal portion of head with concentration of small black chromatophores, from snout to posterior tip of parieto-supraoccipital and laterally on most of first dorsolateral body plate; interorbital region less pigmented in some specimens. Lateral portion of snout with black stripe between anteroventral portion of orbit and origin of maxillary barbel in most specimens; ventral portion of snout yellowish white with scattered dark chromatophores. Barbels poorly pigmented, black chromatophores scarce

on dorsal portion of maxillary barbel. Opercle and cleithrum generally almost entirely black. Ventral surface of head and trunk pale yellow. Dorsal series of four black blotches, first at anterior portion of dorsal-fin base, second at posterior portion of dorsal-fin base, third at adipose-fin base and fourth at caudal-fin base. Most specimens with three to four large black blotches along midlateral side of body variably coalesced to a series of dorsolateral blotches, often resulting in a single anterodorsally oblique large blotch; midlateral blotches also ventrally elongated by coalescence to blotches in ventral series; blotches around and posterior to anal fin sometimes reaching their counterparts at midventral line; some individuals without blotches along ventral portion of body. Few specimens without coalescence of those three longitudinal series of blotches, with somewhat rounded blotches on dorsolateral portion of body isolated from midlateral and/or midventral portion of body. Ground color of fins pale yellow. Dorsal fin with large triangular black blotch usually occupying anterior two thirds of fin proximally; distal margin of dorsal fin hyaline. Adipose-fin spine brown, membrane hyaline or with few sparse chromatophores. Pectoral-fin rays brown dorsally; interradial membranes and distal margin of rays hyaline. Pelvic fin usually hyaline; few chromatophores on dorsal portion of anterior rays in some specimens. Anal fin with diffuse black or dark brown wide bar across middle region of fin, from second to last branched fin ray, and formed by chromatophores over rays. Caudal fin with three to four transversal black or dark brown bars, formed by chromatophores concentrated over rays; membranes hyaline.

**Coloration in life**. General color pattern similar to preserved specimens (Fig. 2). Dorsal half of head, opercle, cleithrum and dorsal portion of body with distinctly golden areas, mainly between dorsolateral black blotches. Ventral portion of body and fins whitish.

**Sexual dimorphism.** Males of *Aspidoras kiriri* (around 20.9-30.9 mm SL) possess genital papilla lanceolate in shape, similar to that found in other members of Corydoradinae (Britto, 2003: 142, fig. 23). Females without papilla or projections, the condition typically found in females of other species within Corydoradinae.

**Geographic distribution.** *Aspidoras kiriri* is known only from two headwater tributaries of rio da Dona, a small coastal drainage in eastern Bahia, Brazil (Figs. 6a-b).

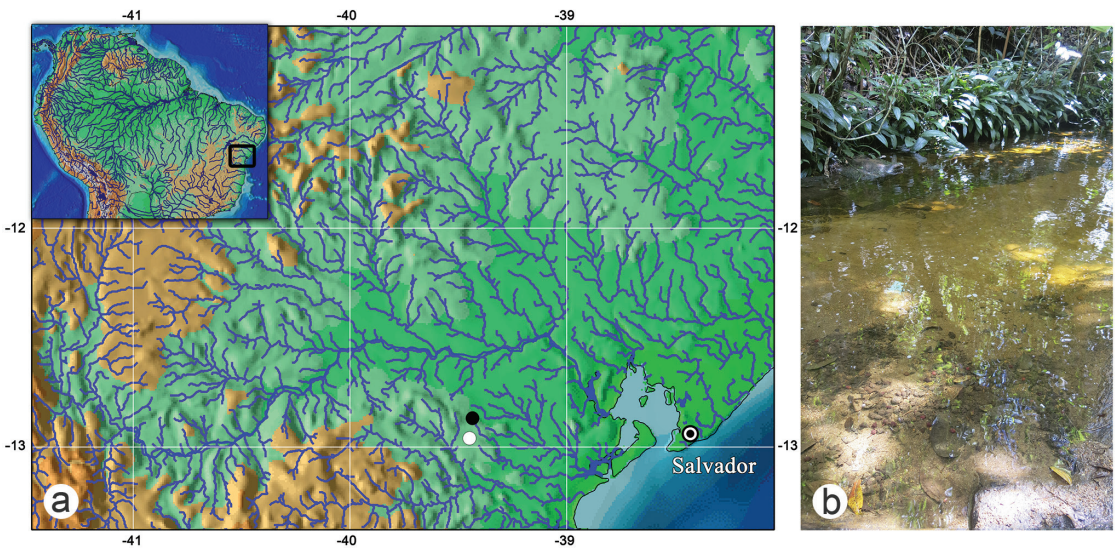


**Fig. 6.** (a) Map showing geographic distribution of *Aspidoras kiriri* (white dot represents type locality); (b) type locality, Brazil, Bahia, Serra da Jibóia, Varzedo, rio da Dona basin, riacho Cai-Camarão.

**Ecological notes.** The rio da Dona enters the Atlantic Ocean near Ilha de Itaparica, Bahia, and its headwaters drain the eastern slopes of Serra da Jibóia. The area is located in the Atlantic Forest and Caatinga domains *sensu* Ab'Sáber (1977), and includes mountains that reach 800 m above sea level and moist hillside forests characteristic of northern Bahia. The new species occurs in small streams crossing the Atlantic Forest, at 244-303 m above sea level. The Cai-Camarão tributary, type-locality of the new species, is 1-4 m wide and 20-40 cm deep, and has a rocky bed alternating with sand and organic debris. Specimens were sampled from small pools in stretches of rapids or larger pools below the rapids. The water temperature during the period of sampling was around 21.0 ºC, pH 4.55 and dissolved oxygen 7.3 mg/l. At this location, *Aspidoras kiriri* was sampled syntopically with *Astyanax bimaculatus* (Linnaeus, 1758), *Astyanax* sp., *Characidium* sp., and *Trichomycterus* sp. A second tributary, the rio Sururu is similar overall, but severely impacted where sampled, almost dry due to its proximity to road BA-495 and water removal for human use. The few specimens gathered from rio Sururu were found in very small mud-bottomed pools less than 10 cm deep.

**Etymology**. Named after the Kiriri Indians who originally inhabited a broad area in eastern Brazil. Nowadays, they are restricted mainly to the municipality of Banzaê, in northern Bahia. The name of the indigenous people can be written as Cariri or Kariri and has its origin in the Tupi language, meaning silent, taciturn. A noun in apposition.

**Conservation status.** Populations of *Aspidoras kiriri* are currently known only from the rio da Dona basin, a relatively small drainage from Bahia State. Despite some records about threats for the region, such as deforestation, water pollution and erosion (Santos, Góis, 2004; Góis, Almeida, 2011), there is no data about direct effects of these threats to the populations of *A. kiriri* so far. Therefore, with the currently available data, and according to the International Union for Conservation of Nature (IUCN) categories and criteria (IUCN Standards and Petitions Subcommittee, 2016), *A. kiriri* should be classified as Least Concern (LC).

## Discussion

According to the most recent phylogenetic studies (Alexandrou *et al.*, 2011; Vera-Alcaraz, 2013), *Aspidoras* is paraphyletic since *A. pauciradiatus* and *A. virgulatus* are members of other clades. Despite that, *A. kiriri* can be unequivocally assigned to *Aspidoras* by having all the synapomorphies presented by Britto (2003) and a general morphological pattern very similar to *A. rochai*, type species of the genus, contrary to *A. pauciradiatus* and *A. virgulatus*, which are morphologically compatible with the species of lineages 4/5 and 3 *sensu* Alexandrou *et al.* (2011), respectively.

The new species possesses at least two characteristics considered paedomorphic by Britto *et al*. (2002) and Britto *et al.* (2005): dorsolateral body plates in preadipose area not contacting their counterparts, and infraorbital 2 with reduced laminar expansion. The first condition was previously reported for *A. velites* by Britto *et al.* (2002) and *A. psammatides* in specimens up to 26.4 mm SL (Britto *et al.*, 2005: 478). Based on our analysis of additional material of *A. velites*, larger specimens (ca. 29.0 mm SL) present dorsolateral body plates not touching their counterparts only in the region just posterior to dorsal-fin base and not along the entire interdorsal region. Britto *et al.* (2002; 2005) considered this plate condition to be exclusive to *A. psammatides* and *A. velites*, but it is quite variable and also present in other species, even as adults (≥ 25 mm SL), such as *A. depinnai*, *A. eurycephalus*, *A. fuscoguttatus*, *A. gabrieli*, *A. menesezi*, *A. poecilus*, *A. raimundi*, *A.rochai*, and *A. spilotus*. *Aspidoras kiriri* presents infraorbital 2 with reduced laminar expansion, as do many congeners, such as *A. brunneus*, *A. depinnai*, *A. menesezi*, *A. psammatides*, *A. raimundi*, *A. spilotus* and *A. velites*. The fact that a larger number of species of *Aspidoras* share these reductive features is expected as the genus itself is considered paedomorphic in Corydoradinae. Therefore, such features are not likely exceptions, but inherent to *Aspidoras* as a whole.

**Comparative material examined:** *Aspidoras albater*: **Brazil**: MNRJ 12581, 42 (3 c&s) 16.4-32.6 mm SL. MZUSP 12991, 34.2 mm SL, holotype. MZUSP 12992, 4, 27.3-32.9 mm SL, paratypes. *Aspidoras belenos*: **Brazil**: MNRJ 12933, 28.4 mm SL, holotype; MZUSP 51208, 3, 15.0-26.6 mm SL. *Aspidoras carvalhoi*: **Brazil**: MNRJ 5230, holotype, 25.4 mm SL. *Aspidoras depinnai*: **Brazil**: MZUSP 56214, 32.5 mm SL, holotype; MZUSP 56215, 4, 24.0-30.3 mm SL, paratypes. MZUSP 56216, 3 c&s, 22.5-29.1 mm SL, paratypes; UFBA 3820, 2, 29.1-36.0 mm SL. *Aspidoras fuscoguttatus*: **Brazil**: MNRJ 20258, 2, 33.5-33.8 mm SL. MZUSP 11737-11755, 19. 7.7-35.6 mm SL, paratypes. NUP 12677, 25 (2 c&s), 20.1-38.3 mm SL. *Aspidoras gabrieli*: **Brazil**: MPEG 17394, 5 of 139, 16.6-26.8 mm SL. *Aspidoras lakoi*: **Brazil**: MNRJ 5292, 30.2 mm SL, holotype. *Aspidoras maculosus*: **Brazil**: UEFS 7610, 4, 23.0-30.2 mm SL; UFBA 3291, 5 (1 c&s), 23.9-30.7 mm SL; UFBA 4660, 2, 25.4-27.1 mm SL. *Aspidoras marianae*: **Brazil**: CPUFMT 2060, 5, 12.3-27.8 mm SL. *Aspidoras menezesi*: **Brazil**: MCP 47284, 19 of 30 (1 c&s), 20.6-29.1 mm SL. MZUSP 49952, 2, 29.0-3.9 mm SL. UFPB 9427, 1, 29.2 mm SL. *Aspidoras pauciradiatus*: **Brazil**: INPA 34595, 5 of 22, 19.0-22.3 mm SL. *Aspidoras poecilus*: **Brazil**: MNRJ 13054, 3 of 17, 25.0-27.5 mm SL. UNT 6234, 29 of 51 (1 c&s), 25.6-39.5 mm SL. *Aspidoras psammatides*: **Brazil**: MNRJ 21270, 24 (2 c&s), 15.9-30.4 mm SL, paratypes; MNRJ 21709, paratypes, 50 (2 c&s), 15.0-28.4 mm SL; MNRJ 21710, paratypes, 18 (1 c&s), 16.7-24.9 mm SL; MNRJ 28407, 25.0 mm SL, holotype; UEFS 2790, 7 (1 c&s), 25.5-30.4 mm SL; UEFS 2845, 3 of 7, 25.7-31.0 mm SL. *Aspidoras raimundi*: **Brazil**: UFPB 9418, 5 de 51 (1 c&s), 25.6-39.5 mm SL. *Aspidoras rochai*: **Brazil**: MZUSP 2195, 38.7 mm SL, lectotype of *Aspidoras rochai* Ihering 1907 designated by Britski 1969; MZUSP 5300, 1, 35.5 mm SL, paralectotype. *Aspidoras spilotus*: **Brazil**: MNRJ 8688, 4 of 142 (2 c&s), 20.0-28.0 mm SL, paratypes; UFPB 9247, 2 of 7 (1 c&s), 41.7-43.0 mm SL. UFPB 9251, 4, 22.9-27.4 mm SL. *Aspidoras taurus*: **Brazil**: MNRJ 19951, 5, 29.2-38.0 mm SL, paratypes. MZUSP 57154, 52.1 mm SL, holotype. *Aspidoras velites*: **Brazil**: LIRP 4479, 11 (1 c&s), 17.7-29.0 mm SL. MZUSP 73247, 5 of 25, 19.7-22.4 mm SL, paratypes. MZUSP 74447, 23.6 mm SL, holotype. *Aspidoras virgulatus*: **Brazil**: MNRJ 4736, 11 (3 c&s), 22.6-38.5 mm SL. MNRJ 5366, 2, 29.8-30.0 mm SL, paratypes. MNRJ 5371, 33.0 mm SL, holotype. UFBA 7757, 2, 33.7-38.8 mm SL.

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