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## ON THE IDENTITY OF *CORYDORAS NATTERERI* STEINDACHNER, 1877 WITH THE DESCRIPTION OF A NEW SPECIES, *CORYDORAS PRIONOTOS* (PISCES, SILURIFORMES, CALLICHTHYIDAE)

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### ABSTRACT

A redescription and figures of *Corydoras nattereri* Steindachner, 1877, are given together with a description and figures of a new species, *Corydoras prionotos*, sympatric with *Corydoras nattereri*, with comparable dimensions and a similar colour pattern. A total of 1066 specimens were examined, including primary type-material of *Corydoras juquiaae* Von Ihering, 1907, and of *Corydoras nattereri triseriatus* Von Ihering, 1911, which are both placed in synonymy of *C. nattereri*, the holotype of which is lost.

A neotype for *Corydoras nattereri* is designated. *Corydoras prionotos* differs from *C. nattereri* mainly in having the medial border of the pectoral-fin spine strongly serrate.

### INTRODUCTION

Steindachner (1877: 143-144, pl. II figs. 1, 1a-b) described *Corydoras nattereri* from a single specimen. He states (loc. cit.: 144): "Das hier beschriebene Exemplar wurde von Natterer höchst wahrscheinlich in der Nähe von Rio Janeiro gesammelt da es sich in einem Glase mit anderen Fischen (Characinen und Chromiden) befand, die bestimmt nur dem Stromgebiete des Parahyba und des Jequitinhonha angehören." This is actually a rather wide concept of the vicinity of Rio de Janeiro.

It was subsequently shown (e.g., by Ellis, 1913, and by Weitzman, 1955) that in the area inhabited by *Corydoras nattereri* there exists another species with about the same body proportions and with a similar colour pattern as described for *Corydoras nattereri*. The principal difference between these two species is the presence (in *Corydoras prionotos*

sp. nov.) and absence (in *C. nattereri*) of strongly serrate pectoral-fin spines.

Steindachner (loc. cit.) does not mention the presence of a serration on the pectoral-fin spine, and this character is not shown in the accurate illustrations of the holotype (pl. II, especially figs. 1a and 1b). In the same paper, Steindachner describes three other new species (viz., *C. agassizii*, *C. eques*, and *C. elegans*), stating the extent of the serration along the inner border of the pectoral-fin spine of each, being: "...etwas stärker gezähnt als der Dorsalstachel..." (: 139, in *C. agassizii*), "...am unteren Rande gezähnt." (: 141, in *C. eques*), and "...am unteren Rande ziemlich starke ... zahlreiche Zähne." (: 142-143, in *C. elegans*). This information leads us to believe that the holotype of *Corydoras nattereri* did not have a serrate medial border of its pectoral-fin spine. The holotype was deposited in the Vienna Museum, but

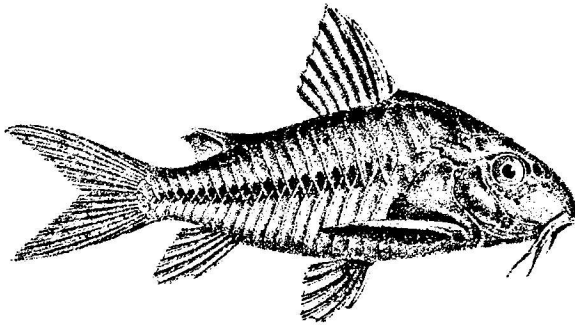


Fig. 1. *Corydoras nattereri*, reproduction of Steindachner's (1877) illustration of the holotype, which is now considered lost.

subsequently was never recorded. We have re-examined the entire collection of *Corydoras* species in the Vienna Museum, including the syntypes of *Corydoras agassizii*, *C. eques*, and *C. elegans*. The holotype of *Corydoras nattereri* could not be found. According to Dr P. Kähnsbauer (personal communication) it has to be considered lost.

Because of the occurrence of two species in the vicinity of Rio de Janeiro with a similar colour pattern and the subsequent confusion about the identity of *Corydoras nattereri* in the literature, we find it necessary to designate a neotype. This designation is required to establish a basis for the confirmation of the synonymy of *Corydoras nattereri* and *C. juquiaae*, as already proposed by Regan (1912: 219).

Eigenmann & Eigenmann (1888: 165) record *Corydoras nattereri* from the Rio Doce and the Rio Parahyba. In 1890 (: 470-471, in key on: 465) they gave a description based on the specimens listed in 1888, viz., 3 specimens collected by the Thayer Expedition. Their remark (1890: 470) that the pectoral-fin spine has: "...its inner margin strongly serrate." is incorrect. We examined these three specimens (two from Rio Parahyba, one from Rio Doce) and found their medial border (= inner margin) of the pectoral-fin spines not strongly serrate. This remark is confusing because the principal distinguishing character of *Corydoras prionotos* is a strongly serrate pectoral-fin spine. The smaller specimen from "Rio Parahyba" (= Rio Paraíba do Sul) is herein designated the neotype of *Corydoras nattereri*.

Von Ihering published the bilingual original descriptions of *Corydoras juquiaae* (1907: 36-39)

based on (cf.: 38): "Type: Numerous specimens, the largest 67 mm long, from the Juquiá River, Poço Grande, State of S. Paulo." The lectotype of *Corydoras juquiaae* was designated by Britski (1969: 207).

Von Ihering (1911: 386) published another bilingual original description, of *Corydoras nattereri triseriatus*. Britski (1969: 207) designated the lectotype of this presumed subspecies.

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The photographic illustrations have been made by Mr L. A. van der Laan, Institute of Taxonomic Zoology, formerly Zoologisch Museum, Amsterdam (ZMA) (figs. 1-3). The drawings (figs. 4, 6-7) have been made by Mrs M. P. Bakry (USNM).

CM Carnegie Museum (material now in FMNH)  
IUM Indiana University Museum (material now in CAS)  
SU Stanford University (material now in CAS)

In the tables, abbreviations used for measurements and counts are the same as given by Nijssen (1970: 10-11, fig. 3). In tables I-III, the ratios of proportions are expressed in standard length (sl) and in head length (hl).

## SYSTEMATIC DESCRIPTIONS

***Corydoras nattereri* Steindachner, 1877**  
(figs. 1-4, 5a, 8; tables Ia-c, IIa-h)

*Corydoras Nattereri* Steindachner, 1877: 143-144, pl. 11

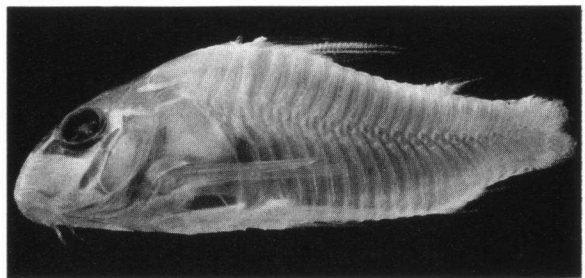


Fig. 2. *Corydoras nattereri*, lectotype of *C. juquiaae*.

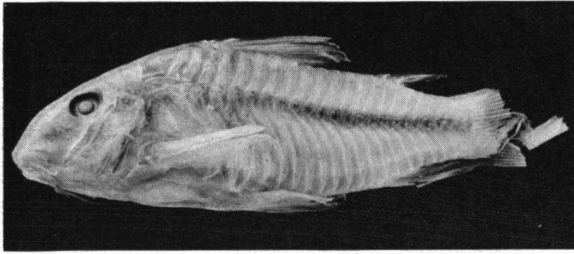


Fig. 3. *Corydoras nattereri*, lectotype of *C. nattereri triseriatus*.

figs. 1, 1a-b (original description; type-locality: originally "höchst wahrscheinlich in der Nähe von Rio Janeiro...", presently restricted to Rio Paraíba do Sul).

*Corydoras juquiaae* Von Ihering, 1907: 36-38 (original description; composite, restricted by the lectotype designation by Britski, 1969: 207; type-locality: "Juquiá River, Poço Grande, State of S. Paulo").

*Corydoras nattereri triseriatus* Von Ihering, 1911: 386 (original description; type-locality: "Rio Doce, Est. Espirito Santo").

877 Specimens examined, largest 51.6 mm sl.

Brazil

Est. Rio de Janeiro: MCZ 8229: neotype, by present designation, sl 41.6 mm; affluent of Rio Paraíba do Sul, 3 miles up, coll. Thayer Exp., 1865. — MCZ 51895 (ex MCZ 8229), 1; same data as neotype. — MNRJ 1012, 1; affluent of Rio Paraíba do Sul, coll. João Moojen de Oliveira.

— MNRJ 6049 and MNRJ 1099, 21; partly from Canal de Cação-Vermelho, Baixada Fluminense. — CAS (SU 47858), 1; Canal do Cação-Vermelho, Baixada Fluminense, coll. G. S. Myers & A. L. de Carvalho, 1-VII-1944. — CAS (SU 36945), 2; vicinity of Rio de Janeiro, coll. T. D. White, VII-1941. — CAS 20668 (ex IUM 13320, ex CM 3490), 3; FMNH 54843 (ex CM 3490), 39; FMNH 15271/15274 (ex CM 3490), 4; Campos (21°46'S, 41°21'W), coll. J. D. Haseman, 15-VI-1908. — USNM 129927, 5; vicinity of Rio de Janeiro, coll. R. Brocca. — USNM 177544, 1; ZMA 110.427, 1; between Rio de Janeiro and Macaé (22°21'S, 41°48'W), coll. H. R. Axelrod, 1958. — BMNH 1905.6.9:8; Rio de Janeiro, coll. R. von Ihering. — SMF 5746, 2; Rio de Janeiro, coll. H. Schultz, 12-II-1962. — FMNH 54841 (ex CM 3488), 5; São João da Barra (21°39'S, 41°04'W), coll. J. D. Haseman, 22-VI-1908. — FMNH 54844 (ex CM 3491), 2; Lagoa Feia Tocas [Lagoa Feia, 22°00'S, 41°21'W], coll. J. D. Haseman, 27-VI-1908.

Est. São Paulo: MZUSP 1984, lectotype of *Corydoras juquiaae*, sl 30.5 mm; Rio Juquiá, Poço Grande, coll. W. Moenkhaus, 1898. — MZUSP 5326/5330, 5 paralectotypes of *C. juquiaae*; BMNH 1905.6.9:9, 2 paralectotypes of *C. juquiaae*, sl 30.7-49.8 mm; same data as lectotype of

TABLE I

Measurements in mm and counts (A), and proportions (B) of a) *Corydoras nattereri* Steindachner, 1877, neotype, b) *Corydoras juquiaae* Von Ihering, 1907, lectotype, c) *Corydoras nattereri triseriatus* Von Ihering, 1911, lectotype, and d) *Corydoras prionotos* n. sp., holotype.

specimen	A					B			
	a	b	c	d		a	b	c	d
sl	41.6	30.5	33.8	51.1	sl (mm)	41.6	30.5	33.8	51.1
bd	15.4	10.4	12.3	16.1	sl/bd	2.7	2.9	2.8	3.2
bw	12.1	8.2	9.5	12.0	sl/bw	3.4	3.7	3.6	4.3
lds	9.0	7.3	9.2	11.1	sl/lds	4.6	4.2	3.7	4.6
lps	11.3	9.4	10.4	13.1	sl/lps	3.7	3.3	3.3	3.9
hl	12.4	9.5	10.5	15.0	sl/hl	3.4	3.2	3.2	3.4
sn	5.4	4.2	5.0	8.5	hl/sn	2.3	2.3	2.1	1.8
lbo	3.6	3.0	3.2	3.4	hl/lbo	3.5	3.2	3.3	4.4
wi	5.8	4.2	4.4	4.8	hl/wi	2.1	2.3	2.4	3.1
ca	4.5	3.0	5.2	6.3	hl/ca	2.8	3.2	2.0	2.4
dcp	5.5	4.3	4.9	6.5	hl/dcp	2.3	2.2	2.1	2.3
fontanel	0.8	1.4	1.2	5.4					
P <sub>2</sub>	1,8	1,8	1,8	1,9					
dbs/vbs	23/20	23/21	23/20	25/22					
pas	4	3	2	4					

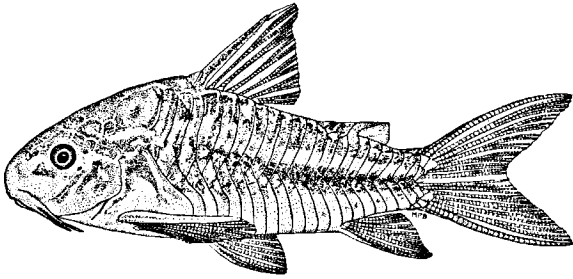


Fig. 4. *Corydoras nattereri* from the vicinity of Rio de Janeiro, CAS (SU 36945), sl 38.7 mm.

*C. juquiaae*. — NMW 46733, 1; Rio Juquiá, Poço Grande, don. F. Steindachner, 1909.

Est. Espírito Santo: MCZ 8179, 1; Rio Doce, coll. F. Hartt & E. Copeland, Thayer Exp., 1865/1866. — MZUSP 342, lectotype of *Corydoras nattereri triseriatus*, sl 33.8 mm; Rio Doce, coll. E. Garbe, 1906. — MZUSP 5331/5358, 28 paralectotypes of *C. nattereri triseriatus*, sl 23.8-34.5 mm; same data as lectotype of *C. nattereri triseriatus*. — NMW 46787, 11; ZMA 111.190, 10; MNHN 13.137, 1; NMW 10987/11007, 21; Rio Doce, don. F. Steindachner, 1912/1913. — CAS (SU 47857), 1; Valle de Canaan, São João de Petrópolis, basin of Rio Doce, coll. G. S. Myers & A. L. de Carvalho, 1943. — MNRJ 4735, 339; Fazenda do Castro, coll. Comissão do Instituto Oswaldo Cruz, 1944. — MNRJ 5746, 5; Riacho da Cachoeira, município da Serra (20°06'S, 40°16'W), coll. C. Lako. — MNRJ 5398, 6; Rio Cambáu, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 5375, 3; MNRJ 5363, 52; MNRJ 5376, 10; Lagoa Juparanã, estrada Linhares (19°22'S, 40°04'W) a São Mateus (18°44'S, 39°53'W), coll. L. & H. Travassos & J. Teixeira de Freitas, 1949. — MNRJ 6016, 3; São João de Petrópolis, coll. G. S. Myers & A. L. de Carvalho. — MNRJ 5368, 22; Rio Cachimbáu, estrada Linhares a São Mateus, coll. L. & H. Travassos & J. Teixeira de Freitas, 1948. — MNRJ 5369, 18; Rio Jundiá, estrada Linhares a São Mateus, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 5364, 13; Rio Barra Seca, estrada Linhares a São Mateus, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas.

Est. Minas Gerais: MNRJ 4534, 2; Além Paraíba, Rio Paraíba, coll. João Moojen de Oliveira, 1945. — FMNH 54842 (ex CM 3489), 28; Entre

Rios [de Minas (20°39'S, 44°06'W)], coll. J. D. Haseman, 1-VI-1908.

Est. Paraná: FMNH 54840 (ex CM 3487), 17; ZMA 110.417, 3; Morretes (25°29'S, 48°39'W), coll. J. D. Haseman, 2/3-I-1908.

Locality unknown: MNRJ 3442, 188 (bad condition); no locality or other data.

Description. — Morphometric and meristic data are given in tables Ia-c and IIa-h. Medial border of pectoral-fin spine finely serrate (fig. 5a).

Colour in alcohol (figs. 1 and 4). — Ground colour pale yellowish tan. Amount and intensity of dark brown pigment forming colour pattern variable. This variability may be due to state of preservation, to method of preservation, to local ecological conditions, and/or to individual or population variation. All specimens have a solid brown stripe, extending over body, where dorso- and ventrolateral scutes meet. This stripe runs from below dorsal-fin spine origin to last principal body scutes. Posterior part of this stripe often more densely pigmented than anterior part, where it narrows at dorsal-fin base height.

Well-pigmented specimens possess irregular, prominent spots and blotches — sometimes forming a longitudinal stripe — about midway along ventrolateral body scutes, from beyond tip of pectoral-fin spine to pelvic fin origin. Pigmentation along dorsum of body most intense where it reaches unpigmented area. In some specimens blotch below dorsal-fin spine is dark and prominent. Dorsum and sides of head with either a consistent shade of brown, or a rather light ground colour with numerous minute spots and vermiculate lines. This pattern may extend to ossified parts of head, and to frontal and lateral soft parts of snout. Nuchal

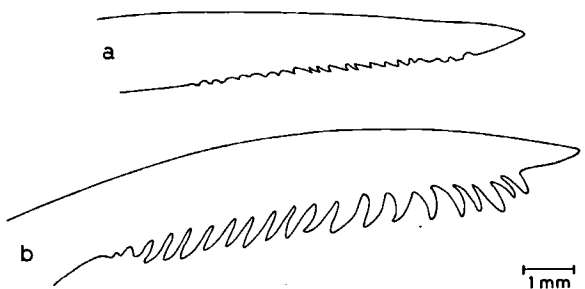


Fig. 5. Left pectoral-fin spine profile of a) *Corydoras nattereri*, neotype, and b) *Corydoras prionotos*, holotype.

scute often dark brown anteroventrally. Minute dark brown spots may be present on rays of dorsal and caudal fin, and occasionally on anal fin.

Poorly pigmented specimens do not show pigment on body ventral to longitudinal stripe. A rather broad, unpigmented area may be present dorsal to this stripe. This area is dorsally delimited by brownish pigmentation from below origin of dorsal-fin spine to base of dorsal caudal-fin rays. Triangular predorsal scute dark, similar to small, ill-defined blotch below origin of dorsal-fin spine. Dorsal and dorsolateral parts of head evenly pigmented with brown.

**Corydoras cf. nattereri**  
(table III)

*Corydoras nattereri* (non Steindachner, 1877); Ellis, 1913: 403 (listed; San Joaquin).

Material examined. — Bolivia, Prov. Beni: FMNH 54845 (ex CM 3492), 1, sl 30.1 mm; Río Machupo, a tributary of Río Guaporé, at San Joaquin (13°06'S, 64°47'W), coll. J. D. Haseman, 6-IX-1909.

Discussion. — This specimen was listed as

*Corydoras nattereri* by Ellis (loc. cit.). Fowler (1940: 97) repeated the record of this specimen. We re-examined the specimen, of which the colour pattern is now faded. We are unable to identify the specimen due to its present state of preservation. It has small eyes (4.0) in comparison with *C. nattereri* (3.0-3.8). It was collected from a locality far remote from the area of distribution of *Corydoras nattereri*. A freshly preserved sample from Bolivia is indispensable for identification of Ellis's specimen, which apparently agrees with *C. nattereri* in most of its characters.

**Corydoras prionotos** new species  
(figs. 5b, 6-8; tables Id, III)

188 Specimens examined, largest 53.1 mm sl.  
Brazil

Est. Espirito Santo: MNRJ 10537 (ex MNRJ 9713, in part): holotype, sl 51.1 mm; MNRJ 9713, 12 paratypes; ZMA 115.323 (ex MNRJ 9713), 5 paratypes, total range of sl 33.8-53.1 mm; all from Linhares (19°22'S, 40°04'W), Lagoa Juparanã, Rio Doce system, coll. L. Travassos, J. Teixeira de Freitas & Mendonça, 1963 (inside labels with numbers 18544 through 18548). — MNRJ 10540

TABLE II

Proportions and counts of 47 specimens (a-h) of *Corydoras nattereri*, and one specimen (i) of *Corydoras cf. nattereri* (FMNH 54845); a) topotype, MCZ 51895; b) CAS (SU 36945), 2; USNM 177544, 2; SMF 5746, 2; BMNH 1905.6.9:8; c) CAS 20668; d) MZUSP 1984; MZUSP 5326/5330, 5; BMNH 1905.6.9:9, 2; e) CAS (SU 47858); f) MZUSP 5331/5358; g) NMW 46787, 5; NMW 10987; NMW 11007; MNHN 13137; h) FMNH 54840. Total includes primary type-specimens.

specimen(s)	a	b	c	d	e	f	g	h	a-h	i
N	1	7	3	8	1	8	8	8	47	
sl (mm)	42.9	35.4-46.3	32.9-36.9	30.5-49.8	35.2	31.2-34.5	34.0-43.9	39.9-48.8	30.5-49.8	30.1
sl/bd	2.5	2.5- 2.7	2.7- 2.9	2.7- 3.2	2.8	2.7- 2.9	2.8- 3.1	2.6- 2.9	2.5- 3.2	2.7
sl/bw	3.5	3.4- 3.6	3.6- 4.0	3.5- 3.8	3.7	3.5- 3.8	3.4- 3.9	3.5- 4.3	3.4- 4.3	3.8
sl/l <sub>ds</sub>	4.4	3.8- 4.5	3.7- 4.1	3.7- 4.9	4.9	3.6- 3.9	3.9- 5.2	3.7- 4.4	3.6- 5.2	3.7
sl/l <sub>ps</sub>	3.7	3.3- 4.1	3.3- 3.4	3.0- 3.9	3.6	2.8- 3.3	3.4- 4.3	3.1- 3.8	2.8- 4.3	3.2
sl/hl	3.3	3.2- 3.3	3.2- 3.4	3.2- 3.5	3.3	3.2- 3.5	3.3- 3.7	3.4- 3.6	3.2- 3.7	3.3
hl/sn	2.2	2.1- 2.4	2.2- 2.3	2.1- 2.4	2.4	2.1- 2.2	2.1- 2.2	2.1- 2.4	2.1- 2.4	2.4
hl/l <sub>bo</sub>	3.5	3.1- 3.7	3.2- 3.3	3.1- 3.7	3.1	3.1- 3.3	3.2- 3.8	3.0- 3.4	3.0- 3.8	4.0
hl/wi	2.0	2.0- 2.3	2.1- 2.2	2.2- 2.4	2.1	2.2- 2.4	2.2- 2.4	2.0- 2.3	2.0- 2.4	2.1
hl/ca	2.6	2.7- 3.3	2.6- 3.6	2.4- 3.3	3.0	2.0- 2.8	1.8- 3.0	2.3- 3.4	1.8- 3.6	
hl/dcp	2.4	2.0- 2.4	2.1- 2.2	2.1- 2.4	2.1	2.0- 2.2	2.1- 2.4	2.0- 2.1	2.0- 2.4	2.1
P <sub>2</sub>	1,8	1,8	1,7-8	1,7-8	1,8	1,8	1,7-8	1,8-9	1,7-9	
dbs/vbs	22/20	23-24/20-21	22-24/20-21	23-24/21-22	23/21	23-25/20-23	23-24/20-23	23-25/21	22-25/20-23	23/20
pas	3	2-3	2	2-4	3	3	2-4	2-4	2-4	3

(ex MNRJ 5363, in part), 2 paratypes, sl 29-37.5 mm; Lagoa Juparanã, estrada Linhares a São Mateus, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas, 1949. — MNRJ 10538 (ex MNRJ 6016, in part), 2 paratypes; CAS (SU 47856), 5 paratypes, sl 33.9-42.7 mm; Valle de Canaan, São João de Petrópolis, basin of Rio Doce, coll. G. S. Myers & A. L. de Carvalho, 1943. — MNRJ 10539 (ex MNRJ 5368, in part), 1 paratype, sl 25.8 mm; Rio Cachimbá, estrada Linhares a São Mateus, coll. L. & H. Travassos & J. Teixeira de Freitas, 1948. It has small eyes (4.0) in comparison with — MNRJ 10541 (ex MNRJ 5369, in part), 3 paratypes, sl 25.1-39.4 mm; Rio Jundiá, estrada Linhares a São Mateus, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 10542 (ex MNRJ 5364, in part), 3 paratypes, sl 22.2-23 mm; Rio Barra Seca, estrada de Linhares a São Mateus, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 10543 (ex MNRJ 5409, in part), 1 paratype, sl 23.1 mm; Rio Cupido, Sooretama, município de Linhares, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 10544 (ex MNRJ 5398, in part), 2 paratypes, sl 26.1-41.2 mm; Rio Cambá, coll. L. & H. Travassos & J. Teixeira de Freitas. — MNRJ 5367, 1 paratype, sl 44 mm; Rio Daves, Linhares a São Mateus, coll. L. & H. Travassos & J. Teixeira de Freitas, 1948.

Est. Minas Gerais: MNRJ 5219, 58 paratypes, sl 14.7-46.3 mm; Córrego de Ubá, Raul Soares (20°04'S, 42°27'W), Rio Doce system, coll. H. Berla & J. Machado Filho. — MNRJ 5068, 1 paratype, sl 45.4 mm; Rio Matipó, Raul Soares, coll. H. Berla, 1947.

Est. Rio de Janeiro: BMNH 1905.6.9:7, 1 paratype, sl 43.7 mm; Rio de Janeiro, coll. R. von Ihering. — MNRJ 10545 (ex MNRJ 6049 and MNRJ 1099, in part), 15 non-paratypes, sl 24.3-43.9 mm; partly from Canal do Caçõ-Vermelho, Baixada Fluminense.

Est. São Paulo: MNRJ 6183, 1 paratype, sl 41.2 mm; Juquiá (24°17'S, 47°36'W), Fazenda do Poço Grande, coll. F. Lane, 1951. — CAS (IUM 10996 [label reads 10796]), paralectotype of *Corydoras juquiaae*, 1 paratype, sl 50 mm; Rio Juquiá, Poço Grande, coll. W. Moenkhaus, 1898. — NMW 18993, paralectotype of *C. juquiaae*, 1 paratype, sl 45 mm; same data as CAS (IUM 10996). — NMW 46786, 3 paratypes; ZMA 110.476, 3 paratypes, sl 32.3-39.1 mm; Ribeirão do Mumuna, tributary of Rio Ribeira, coll. R. Krone, 1909. — FMNH 54882 (ex CM 3544), 1 paratype, sl 48.2 mm; Xiririca, Iguape along Rio Ribeira de Iguape (24°44'S, 47°31'W), coll. J. D. Haseman, 8-XII-1908.

Locality unknown: MNRJ 10546 (ex MNRJ 3442, in part), 65 non-paratypes (bad condition); no locality or other data.

TABLE III

Proportions and counts of 21 specimens of *Corydoras prionotos*. a) MNRJ 9713; b) NMW 18993; CAS (IUM 10796); c) BMNH 1905.6.9:7; d) CAS (SU 47856); e) NMW 46786, 3; ZMA 110.476, 3. Total includes the holotype.

specimens(s)	a	b	c	d	e	total
N	6	2	1	5	6	a-e 21
sl (mm)	47.0-51.4	45.0-50.0	43.7	34.6-42.7	32.3-39.1	32.3-51.4
sl/bd	3.2- 3.4	3.1- 3.2	3.1	3.1- 3.4	3.0- 3.4	3.0- 3.4
sl/bw	4.2- 4.5	4.0- 4.2	3.9	4.0- 4.2	3.8- 4.2	3.8- 4.5
sl/l <sub>ds</sub>		4.2- 4.4	5.4	4.3- 4.9	4.4- 5.0	4.2- 5.4
sl/l <sub>ps</sub>		3.6- 3.7	3.4	3.5- 3.9	3.5- 4.2	3.4- 4.2
sl/hl	3.4- 3.6	3.4- 3.5	3.4	3.4- 3.5	3.4- 3.5	3.4- 3.6
hl/sn	1.8- 1.9	1.8- 1.9	1.8	1.8- 2.1	1.8- 2.1	1.8- 2.1
hl/l <sub>bo</sub>		3.3- 3.6	3.7	3.4- 3.6	2.9- 3.4	2.9- 4.4
hl/wi	2.9- 3.2	2.6- 2.9	2.6	2.5- 3.1	2.5- 3.1	2.5- 3.2
hl/ca		2.0- 2.2	2.0	2.3- 2.7	1.9- 2.9	1.9- 2.9
hl/dcp	2.2- 2.4	2.4- 2.6	2.4	2.2- 2.4	2.3- 2.4	2.2- 2.6
P <sub>2</sub>		1,8	1,7	1,9	1,8	1,8-9
dbs/vbs	25-26/22-23	22/23	25/23	25/22-23	25-26/22-23	25-26/22-23
pas		3	3	3-5	3	3-5

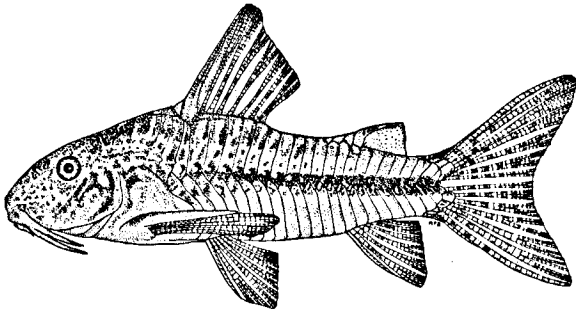


Fig. 6. *Corydoras prionotos*, paratype, ♂, from São João de Petrópolis, CAS (SU 47856), sl 34.6 mm.

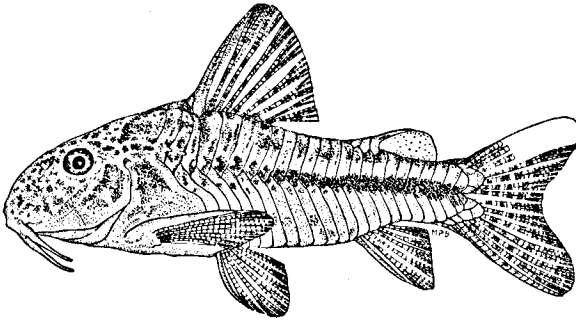


Fig. 7. *Corydoras prionotos*, paratype, ♀, from São João de Petrópolis, CAS (SU 47856), sl 39.6 mm.

Description. — Morphometric and meristic data are given in tables Id and III. Medial border of pectoral-fin spine strongly serrate (fig. 5b).

Colour in alcohol (figs. 6-7). — Strikingly similar to that of *Corydoras nattereri* (including a similar variability), except for a tendency to show 1) a longitudinal series of small spots just below anterior half of midlateral stripe, 2) larger and more prominent spots on dorsal and lateral parts of head and snout, 3) ill-defined blotches below base of last dorsal-fin ray and below origin of adipose-fin spine, and 4) larger spots in dorsal and caudal fin.

Etymology. — The specific name *prionotos* is Greek meaning 'jagged, serrate', in allusion to the medial border of the pectoral-fin spine of this species.

Distinguishing characters (tables II and III). — *Corydoras prionotos* has a more acute and longer snout (1.8-2.1) than *C. nattereri* (2.1-2.4), a nar-

rower interorbital (2.5-3.2 against 2.0-2.4 in *C. nattereri*). Moreover, *C. prionotos* tends to have a more slender body shape, viz.: body depth 3.0-3.4 against 2.5-3.2 in *C. nattereri*, body width 3.8-4.5 against 3.4-4.3 in *C. nattereri*, depth caudal peduncle 2.2-2.6 against 2.0-2.4 in *C. nattereri*. This tendency is also apparent in the presence in *C. prionotos* of more body scutes. *C. prionotos* tends to have shorter fin spines: dorsal spine 4.2-5.4 against 3.6-5.2 in *C. nattereri*, and pectoral spine 3.4-4.2 against 2.8-4.3 in *C. nattereri*.

## DISCUSSION

Von Ihering (1907: 38) states: "*C. juquiaae* is closely allied to *C. nattereri*, different however by its much longer snout and by the shape of the occipital plate which is wider and shorter". We have re-examined the lectotype and 8 paralectotypes of *Corydoras juquiaae* and found them (all but 2 paralectotypes) identical with *Corydoras nattereri*. The two exceptions are 1) the specimen recorded by Ellis and 2) a specimen deposited in NMW 18993. Both of these are now paratypes of *Corydoras prionotos*.

Regan (1912: 219) received from Von Ihering 2 syntypes of *Corydoras juquiaae* and 2 specimens of *Corydoras nattereri* (from Rio de Janeiro) which he considered conspecific. One of the Rio de Janeiro specimens is a *Corydoras prionotos*, whereas the other 3 specimens are *Corydoras nattereri*.

Ellis (1913: 403, pl. 27 fig. 1) examined a syntype of *C. juquiaae* donated to Eigenmann by Von Ihering, and illustrated a specimen originating from Xiririca; these are identified by us as specimens (paratypes) of *Corydoras prionotos*. Ellis's figure is the first illustration of this species. Only one other author considered *Corydoras juquiaae* distinct from *C. nattereri*, A. de Miranda Ribeiro (1918: 721), who listed 10 syntypes.

Von Ihering, Regan, and Ellis were unaware that the syntypes of *Corydoras juquiaae* consisted of two species. Ellis named her specimen "Type" (= syntype, according to Art. 73(c)(i) of the Int. Code of zool. Nomencl., 1964; see also Art. 74(a)(ii) in the Amendments of this Code, 1974). The lectotype of *Corydoras juquiaae* was designated by Britski (1969: 207).



Fig. 8. Map showing the localities where *Corydoras nattereri* (circles) and *Corydoras prionotos* (crosses) were collected. N indicates the type locality of *C. nattereri*, P that of *C. prionotos*.

Von Ihering (1911: 386) distinguished his subspecies *C. nattereri triseriatus* from the nominate form by its colour pattern, based on discrepancies with Steindachner's description and illustration, stating: "Distingue-se esta forma do typo descripto por Steindachner... com o qual no mais combina perfeitamente, por ter un desenho mai variegado." We re-examined the lectotype and 28 paralectotypes (the number of syntypes was not recorded) and found them all identical with *Corydoras nattereri*.

Weitzman (1955: 101-105, figs. 1, 2b) re-described *Corydoras triseriatus* from 5 specimens (CAS (SU 47856)), which he recognized as distinct from *Corydoras nattereri* on the basis of the same characters which distinguish *C. prionotos* from *C. nattereri*. These 5 specimens are now included as paratypes of *C. prionotos*.

Almost every specimen recorded in the literature

subsequent to Steindachner's original description of *Corydoras nattereri* was available for re-examination.

A number of records in the literature of *Corydoras nattereri* pertain to *C. prionotos*. Other records consist of mixed samples with *C. prionotos*, and some contain *C. nattereri* only.

Subsequent to Steindachner's original description of *C. nattereri*, the following authors have published on this species (synonyms, and mixed samples included; reference to aquarium specimens excluded): Cope (1878: 681, as *Gastrodermus nattereri*), Eigenmann & Eigenmann (1888: 165; 1890: 465, 470-471; 1891: 44), Eigenmann & Kennedy (1903: 505), Von Ihering (1907: 36-39; 1911: 386), Eigenmann (1910: 403), A. de Miranda Ribeiro (1911: 164, pl. 36 fig. 2; 1918: 721), Regan (1912: 210, 219, on: 212 *C. nattereri triseriatus* is listed as a doubtful synonym of *C. paleatus*), Ellis (1913: 395, 401, 402-403, 410, pl. 27 fig. 1, pl. 31 figs. 1, 1a-b), Gosline (1940: 15, 23; 1945: 76), Fowler (1940: 97; 1954: 63-64, fig. 661, on: 54 *C. nattereri triseriatus* is listed as a synonym of *C. aurofrenatus*), Weitzman (1955: 101-106, figs. 1, 2a-b), P. de Miranda Ribeiro (1959: 12-13), Britski (1969: 207), and Nijssen (1970: 58).

In addition to the extensive records of *Corydoras nattereri* (many of which concern *C. prionotos*), P. de Miranda Ribeiro (1959: 15-16) lists abundant material as *Corydoras treitlii*. We have examined all this material except MNRJ 8608 and MNRJ 4736, and re-identify most of it as *Corydoras nattereri* or *C. prionotos* (compare our lists of specimens). None of P. de Miranda Ribeiro's *Corydoras treitlii* is conspecific with *Corydoras treitlii* Steindachner (1906: 478-479, original description) — for a redescription and illustration of this species, see Weitzman (1964: 116-118, figs. 1-2).

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