

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW CATFISH, *CORYDORAS CONCOLOR*
(CALLICHTHYIDAE) FROM VENEZUELA

BY STANLEY H. WEITZMAN

*Department of Anatomy, School of Medicine,
Stanford University, California*

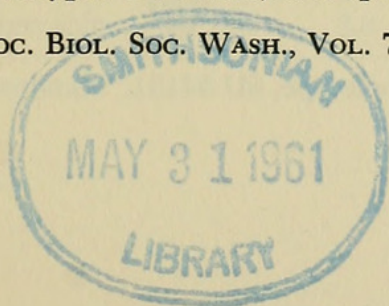
In a collection of *Corydoras* sent to me for identification by Franz Weibezahn of the Universidad Central de Venezuela were six large, deep bodied specimens of an unknown species from the Río Parguaza, Venezuela. Another new species, *Corydoras habrosus* Weitzman (1960a), from this collection has already been described. The remainder of the species in this collection of Venezuelan *Corydoras* appears to belong to known species and will be treated in subsequent papers. The present contribution is part of a series of papers on the genus *Corydoras*, the purpose of which is to illustrate and describe every available species of the genus. References to other papers in this series may be found in Weitzman (1960a and b). I wish to thank Franz Weibezahn for the gift of the specimens, George S. Myers for use of the facilities and specimens of the Natural History Museum, Stanford University and W. I. Follett, Curator of Fishes at the California Academy of Sciences, San Francisco for loan of specimens.

***Corydoras concolor*, new species**

Figs. 1 and 2

Holotype: Stanford University 54131, 43.8 mm in standard length, collected 17 February 1946 by Agustin Fernandez-Yepes at Las Mangas, in a tributary to the Río Parguaza, western part of the State of Bolivar, Venezuela. The Río Parguaza is a stream arising in the Serranía de Parguaza, flowing northwest and into the Río Orinoco almost opposite the island of El Gallo, 6°20' N latitude and 67°10' W longitude.

Paratypes: SU 54132, one specimen, standard length 41.5 mm, bearing same data as holotype. SU 54133, four specimens, standard length 51.8–



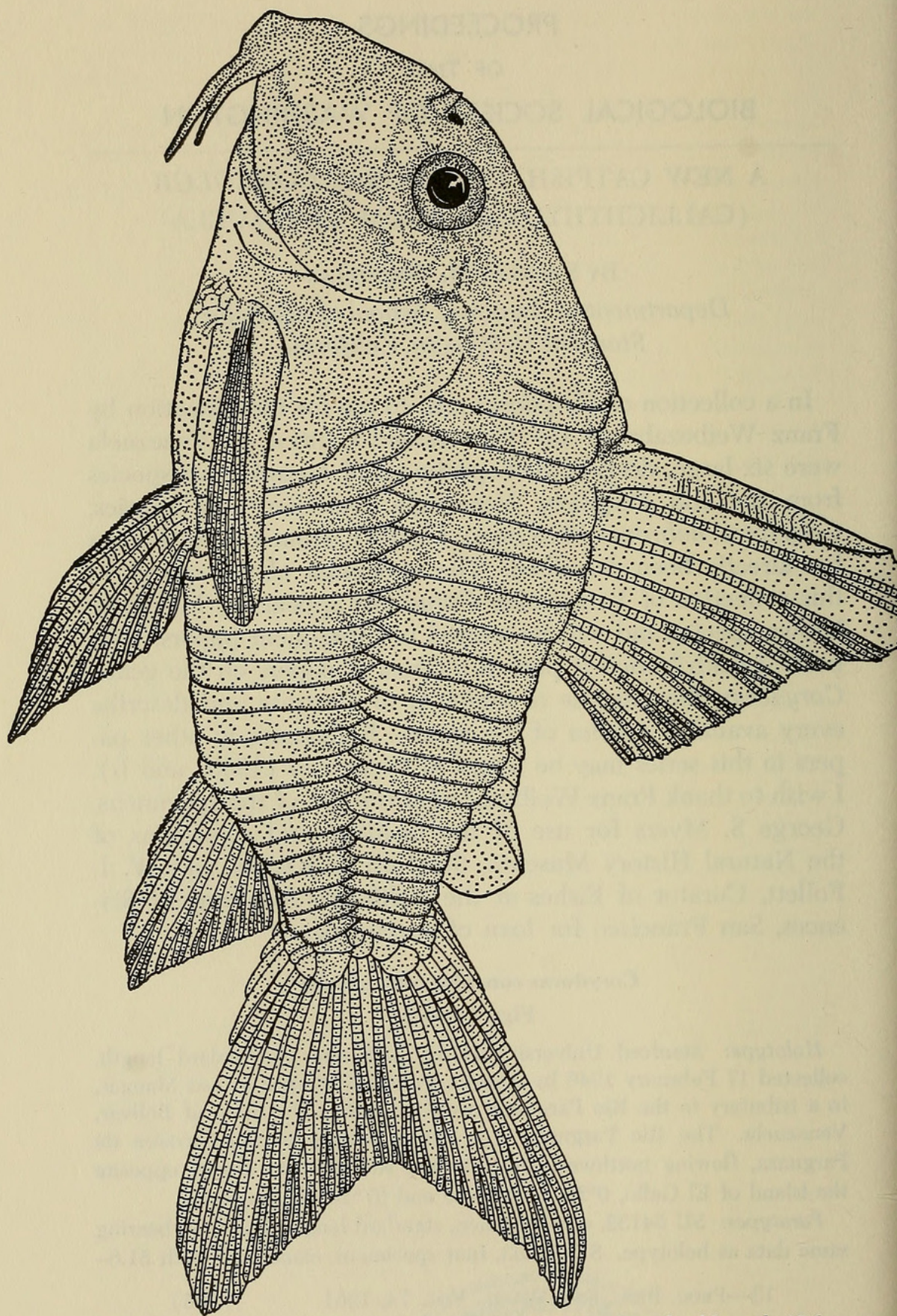


FIG. 1. *Corydoras concolor*, holotype, SU 54131. Standard length 43.8 mm.

54.2 mm, collected 7 April 1952 by Manuel Vincent Ramirez from the Río Parguaza, State of Bolivar, Venezuela.

Diagnosis: *Corydoras concolor* may be distinguished from other species of *Corydoras* by the following combination of characters. It lacks dark markings, has a very deep body (2.1 to 2.4 in standard length), has a large eye (3.2 to 4.0 in head length), pectoral fins incompletely surrounded by the coracoids, and a moderately high dorsal fin spine (1.1 to 1.2 in head length).

Description (holotype first, paratypes in parentheses): See Table 1 for measurements. Body relatively deep, greatest depth 2.1 (2.2–2.4). Least depth of caudal peduncle 5.9 (5.9–6.9). Dorsal fin origin nearer to snout tip than to caudal fin base. Distance between snout tip and

TABLE 1. Measurements in millimeters of specimens of *Corydoras concolor*.

MEASUREMENTS	HOLOTYPE 54131	PARATYPE 54132	PARATYPES 54133			
Standard length	43.8	41.5	51.8	52.6	54.1	54.2
Head length	14.6	13.7	17.0	16.9	17.9	17.9
Snout length	8.7	8.2	10.4	10.0	11.3	10.5
Least width of bony interorbital	7.0	6.1	7.9	7.4	7.9	7.5
Greatest diameter of bony orbit	4.2	3.4	5.1	5.2	4.7	5.0
Greatest width of suborbital	3.2	3.8	3.4	3.0	4.5	3.2
Length of fontanel	3.5	3.8	6.5	5.6	4.7	5.2
Length of predorsal scale	2.5	2.4	3.5	2.4	3.6	4.1
Greatest width of head	12.5	11.8	14.0	13.9	14.9	16.1
Snout tip to dorsal fin origin	24.0	21.8	28.9	28.3	29.1	29.5
Snout tip to adipose fin origin	37.3	34.8	45.1	44.8	46.6	46.5
Snout tip to anal fin origin	35.4	33.2	41.7	42.2	44.1	44.7
Snout tip to anterior edge of anus	24.6	22.5	27.2	27.7	29.5	27.8
Greatest body depth	20.6	18.1	22.2	22.3	23.3	24.1
Least depth of caudal peduncle	7.5	7.0	7.5	7.8	8.6	8.5
Distance between coracoids	5.4	5.1	5.3	5.5	6.2	6.7
Length of dorsal spine	13.8	12.0	15.4	14.4	15.8	14.6
Length of pectoral spine	14.9	13.0	18.2	17.5	16.8	18.3
Length of adipose spine	3.2	3.8	4.1	3.8	3.5	4.0

dorsal fin origin 1.8 (1.8–1.9). Distance between snout tip and anus 1.8 (1.8–1.9). Anal fin origin to snout tip 1.2 (1.2–1.3). Lateral scutes 23/20 (23/20 in 4 and 24/21 in one paratype). Abdomen with small granular plates, especially near the base of pelvic and pectoral fins. Azygous middorsal scutes 3 (2–4) before adipose fin and 1 before dorsal fin in all specimens. Pectoral fin base incompletely surrounded by coracoid. Area between coracoids 8.1 (8.1–10.0). Head length 3.0 (3.0–3.1); its greatest width 1.2 (1.1–1.2) in its length. Least width of bony interorbital 2.1 (2.2–2.3) in head length. Snout acute in dorsal view and snout tip slightly rounded; its length 1.7 (1.6–1.7) in head length. Dorsal profile of snout straight to slightly convex. When directed posteriorly, inferior rictal barbel reaches slightly beyond a point directly below the posterior margin of eye. Greatest diameter of orbit 3.5 (3.2–4.0) in head length. Greatest width of suborbital 1.3 (0.9–1.7) in orbit.

Dorsal fin I,7 in all specimens, last fin ray split to its base or almost to its base. In holotype first soft ray of depressed dorsal fin (but not spine) reaches adipose fin spine. Adipose fin spine 1.3 (0.9–1.4) in orbit. Anal fin i,7 in all specimens, last ray split to its base. Pectoral fin I,8 (I,8 in SU 54132; I,8 in one and I,9 in other specimens of SU 54133). Pelvic fin rays i,5 in all specimens. Caudal fin with principal rays 7/7 in all specimens. Pectoral fin spine (Fig. 2) has 28 spinules along its posterior border in the holotype, 26 in SU 54132 and 26 to 40 in specimens from SU 54133.

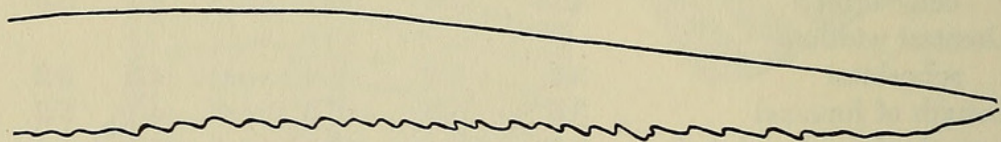


FIG. 2. *Corydoras concolor*, pectoral fin spine, ventral view, left spine.

Color: The holotype has the following color in alcohol. The over-all body color is a pale tan, slightly darker over the dorsum of the body and head. The belly and ventral region of the mouth are white. There are no dark marks of any kind over the sides of the body or head. There is, however, a faint pattern of darker tan over the body and sides of the head. This pattern is illustrated in Fig. 1. The color in life is unknown. The color of the paratypes is similar to that of the holotype.

The name *concolor* is Latin, and means uniformly colored.

Discussion: As with so many members of this genus, the relationships of this species to others are obscure. One of the most characteristic features of *Corydoras concolor* is its lack of heavy dark marks, blotches, bars or lines. In this respect it somewhat resembles some specimens of *Corydoras aeneus* (Gill 1858). However, among many other differences, the eye of *concolor* is proportionately much larger, the dorsal fin spine

proportionately much longer, and the snout much less rounded. Also, most preserved specimens of *aeneus* have a large dark blotch centered about the junction of the upper and lower rows of body scutes at a vertical below the dorsal fin.

Regan (1912:218) questionably synonymized *Corydoras venezuelanus* von Ihering (1911) with *Corydoras aeneus*. Gosline (1940:19) accepted Regan's referral of *venezuelanus* without question. Whether *venezuelanus* is a synonym of *aeneus* or not is, in my opinion, uncertain, but for the present it does seem best to follow Regan and questionably refer *venezuelanus* to the synonymy of *aeneus*. In any case, comparison of *concolor* with von Ihering's very brief description of *venezuelanus* indicates that the two are not the same.

The steep, rather straight, long profile of the snout of *concolor* suggests the long snouts of such species as *Corydoras treitlii* Steindachner (1906), *acutus* (Cope 1912), *septentrionalis* Gosline (1940) and *ellisae* Gosline (1940). However, even though *concolor* appears to have a long snout it does not key to the long-snouted group in Gosline's key (1940). This is because it has a rather wide interorbital. The bony interorbital in *concolor* is contained 1.1 to 1.4 in the snout whereas in Gosline's key, the long-snouted group of *Corydoras* are stated to have the bony interorbital contained 1.7 or more times in the snout. In addition *concolor* differs from all the long-snouted *Corydoras* in color pattern. Of the *Corydoras* described subsequent to Gosline's paper (1940), *fowleri* Böhlke (1950) also has a long snout. *Corydoras concolor* differs from *fowleri* in having a different color pattern, a much deeper body and a larger eye.

If one attempts to key *concolor* in the short-snouted group of Gosline's key, the species runs to the end of the key where it matches most closely *Corydoras latus* Pearson (1924) or *Corydoras polystictus* Regan (1912). Comparison of the holotype of *latus* with that of *concolor* shows a much greater snout length in *concolor* (5.0 in standard length) than in *latus* (8.1 in standard length). Both specimens have nearly the same standard length. In addition, the dorsal spine of *latus* is proportionately shorter than that of *concolor*. The dark markings of *latus* are absent in *concolor*. *Corydoras concolor* differs from Regan's description of *polystictus* in having no dark spots on the sides of the body and dorsal fin, and in having a more acute snout in profile. Regan (1912:216) records the snout of *polystictus* as being a little longer than the diameter of the eye. In *concolor* the snout is just about twice as long as the horizontal diameter of the eye.

Corydoras concolor does not seem to be closely related to either *latus* or *polystictus* or any other short-snouted *Corydoras*. It would seem that its relationships are with the long snouted *Corydoras* but it differs from any known species of this rather artificial group to such an extent that it cannot be very closely compared with or related to any particular long-snouted species.

LITERATURE CITED

- Böhlke, James E. 1950. A new catfish of the genus *Corydoras* from the Peruvian Amazon. *The Fish Culturist*, Philadelphia, 30 (4):26-27.
- Cope, Edward Drinker. 1872. On the fishes of the Ambyiacu River. *Proc. Acad. Nat. Sci. Philadelphia*, 24:250-294, Pls. 1-16.
- Ellis, Marion Durbin. 1913. The plated nematognaths. *Ann. Carnegie Mus.*, 8(3 and 4):384-413, Pls. 25-31.
- Gosline, William Alonzo, III. 1940. A revision of the neotropical catfishes of the family Callichthyidae. *Stanford Ichth. Bull.*, 2(1):1-29.
- Ihering, Rodolpho von. 1911. Algumas especies novas peixes d'agua doce (Nematognatha), *Corydoras*, *Plecostomus*, *Hemipsilichthys*). *Rev. Mus. Paulista*, São Paulo, 8:380-404.
- Pearson, Nathan Everett. 1924. The fishes of the eastern slope of the Andes. 1. The fishes of the Rio Beni Basin, Bolivia, collected by the Mulford Expedition. *Indiana Univ. Studies*, no. 64 (*Indiana Univ. Bull.* 11):1-83.
- Regan, Charles Tate. 1912. A revision of the South American genus *Corydoras*, with a list of the specimens in the British Museum (Natural History). *Ann. Mag. Nat. Hist.*, ser. 8, 10:209-220.
- Steindachner, Franz. 1906. Ueber zwei neue *Corydoras*-Arten aus dem Parnahyba-und Parahim-flüsse im Staate Piauhy. *Anz. Akad. Wiss. Wien*, 43(27):477-482.
- Weitzman, Stanley H. 1960a. Figures and descriptions of four South American catfishes of the genus *Corydoras*, including two new species. *Stanford Ichth. Bull.*, 7(4):140-154.
- . 1960b. Figures and description of a South American catfish, *Corydoras reticulatus* Fraser-Brunner. *Stanford Ichth. Bull.*, 7(4):155-161.



Weitzman, Stanley H. 1961. "A new catfish, *Corydoras concolor* (Callichthyidae) from Venezuela." *Proceedings of the Biological Society of Washington* 74, 105–110.

View This Item Online: <https://www.biodiversitylibrary.org/item/107533>

Permalink: <https://www.biodiversitylibrary.org/partpdf/44742>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Biological Society of Washington

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.