

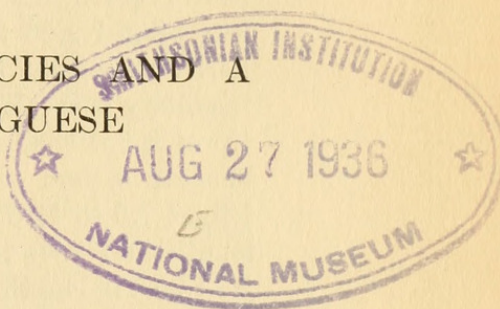
PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

---

A NEW CYPRINID GENUS AND SPECIES AND A  
NEW CHARACIN FROM PORTUGUESE  
EAST AFRICA.

BY ALBERT W. HERRE,  
*Stanford University, California.*

---



On April 30th, 1934, I was able to spend a few hours ashore at Beira, Portuguese East Africa. A car was hired and a man engaged to take me to some fresh water stream. The Beira terrain is exceedingly flat; it was therefore necessary to drive a considerable distance to reach strictly fresh water streams. Finally a vast savanna was reached where huge boiling springs, rapidly flowing ditches, and sheets of water cover practically the entire area for thirty or more kilometers. Across this an automobile road extends to the far distant hills. Fishes swarmed everywhere, mainly Cyprinids and Characins; the species are few but some occur in great schools. The fishes of this region are very imperfectly known, little having been done since Peters explored the rivers of Mozambique about 90 years ago.

The small collection made not only yielded several rare forms, but also a new genus and species of Cyprinidae and a new characin.

**BEIRABARBUS** Herre, new genus.

Related to *Cyclocheilichthys* Bleeker, from which it is separated by having the postlabial groove interrupted in the middle, and by the weak, smooth dorsal spine. Mouth small, inferior; scales radiately striated; lateral line complete, running in the middle of the tail, sensory tubes simple. Entire head covered with many parallel sensory ridges. Dorsal origin before ventral origin, with 2 or 3 spines and 8 branched rays; ventral with 5 rays. Pharyngeal teeth pointed, 4.3-3.4 or 3.2-2.3. Gill opening somewhat restricted.

Type *Beirabarbust palustris* Herre, new species.



**Beirabarus palustris** Herre, new species.

Dorsal III or II-8; anal III-5; scales in lateral line 26 plus 1, transverse  $3\frac{1}{2}$  above,  $3\frac{1}{2}$  below; predorsal 8; around caudal peduncle, 12; gill rakers 2 plus 3 or 2, plus 4 or 5 tubercles.

The depth is 3 to 3.15, head 3.5 to 4, caudal 3.25 to 3.4 times in standard length. The compressed oblong body is strongly elevated behind the head in adults; belly thick, broadly rounded, the ventral profile convex; the head is small, the snout bluntly rounded. Eye 3.33 to 4, snout 3.1 to 3.4, interorbital 2.66 to 3 times in head. Rostral barbel minute, maxillary barbel more than twice in eye, about equal to diameter of pupil. Angle of maxillary concealed by the broad preorbital. Origin of dorsal much nearer tip of snout than caudal, opposite 9th scale of lateral line; ventral origin beneath second or third dorsal spine. Dorsal height equals head; anal height 1.5 to 1.75 in head; least height of caudal peduncle 1.5 in its own length and 1.88 to 2 times in head. The ventral equals the pectoral, 5.2 to 5.8 in length. Caudal broad, deeply forked, lobes pointed. Posterior nostril large, very close to eye; anterior nostril with a tubulate flap; mouth extending beneath posterior nostril. Scales with 4 or 5 basal and 5 or 6 apical radii and 1 to several partial radii; circuli fine, 50 to 60.

Juvenile specimens are much slenderer, but otherwise hardly differ.

In life the general color is reddish olive brown, with violet, bluish red, and purplish iridescence; a black lateral stripe extends from tip of snout to caudal base.

Color in alcohol dark reddish brown, each scale on upper two-thirds of body with a blackish vertical bar or lunula, which may completely cover it; a black stripe from snout tip to caudal base; top of the head blackish brown; fins all clear, or the rays more or less dusky.

Described from the type, 60 mm. long, and many paratypes 19 to 60 mm. in length. 225 specimens were taken from the vast swampy savanna about twelve kilometers from Beira, Portuguese East Africa, where this little fish occurs in large schools.

## Family CHARACINIDAE.

**Petersius barnardi** Herre, new species.

Dorsal II-6; anal II-16-18; lateral line incomplete, 9 or 10 tubulated scales; longitudinal series of scales, 28 or 29 plus 2; transverse, 9; predorsal 12 (very rarely 14); gill rakers 4 to 6 plus 16 or 18.

Depth 3.78 to 3.4, head 3.75 to 3.8, caudal 3, pectoral 4.85, ventral 6.2 in length; eye 3, snout 4.5, maxillary 3 to 3.1, interorbital 3.6, least depth of caudal peduncle 3 times in head. The body is strongly compressed, the upper profile slightly convex, ventral profile much more arched; the lower jaw projects slightly beyond snout; mouth oblique, the maxillary nearly vertical, covering the hind part of the mouth and extending beneath front margin of eye; teeth tricuspid; upper jaw with 12 in outer row, 4 or 6 in inner row, alternating with outer row; 6 teeth in lower jaw. Dorsal height 1.5, anal height 2.25 to 2.5 in head; origin of dorsal behind vertical from ventral base, midway between caudal base and anterior portion or front



margin of eye; adipose fin very small, its length 1.5 in eye; caudal peduncle depth  $1\frac{1}{3}$  in its own length.

Color in life olive brown with silvery and reddish iridescence, becoming dusky along the back and pale or buff ventrally; a black stripe from upper angle of gill opening to caudal base, much broader on posterior half; a black bar, broadest anteriorly above anal base.

Color in alcohol light reddish brown, dusky along the back, the sides and opercle more or less thickly strewn with black dots; a black stripe from upper angle of opercle to caudal base, broadest in the middle and posteriorly, narrower on caudal peduncle; a black bar above anal base, broadest anteriorly; top of head dull brown or black; dorsal, anal, and caudal rays usually covered with black specks, but they may be on all fin rays or all fins may be clear.

Described from the type 34 mm. long, and 84 paratypes 14 to 34 mm. in length. Taken from roadside ditches about 12 kilometers from Beira, Portuguese East Africa, in company with *Beirabarbuis palustris*.

Named in honor of Dr. K. H. Barnard, whose publications are invaluable to the student of South and East African fishes.



Herre, Albert W. 1936. "A new cyprinid genus and species and a new characin from Portuguese East Africa." *Proceedings of the Biological Society of Washington* 49, 99–101.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/107497>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/43747>

#### **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>.