

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 106, NUMBER 14

A NEW DUSSUMIERIID FISH OF THE
GENUS JENKINSIA FROM
BERMUDA

(WITH ONE PLATE)

BY

LUIS RENE RIVAS

Havana, Cuba



(PUBLICATION 3859)

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
NOVEMBER 22, 1946

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 106, NUMBER 14

A NEW DUSSUMIERIID FISH OF THE
GENUS JENKINSIA FROM
BERMUDA

(WITH ONE PLATE)

BY

LUIS RENE RIVAS

Havana, Cuba



(PUBLICATION 3859)

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
NOVEMBER 22, 1946

The Lord Baltimore Press
BALTIMORE, MD., U. S. A.

A NEW DUSSUMIERIID FISH OF THE GENUS
JENKINSIA FROM BERMUDA

By LUIS RENE RIVAS

Havana, Cuba

(WITH ONE PLATE)

Recently, while studying dussumieriid fishes of the genus *Jenkinsia* from the West Indies and the Bahamas, in the United States National Museum (U.S.N.M.), it became necessary to examine also specimens from the Florida Keys, the Bermudas, and the Caribbean area, for comparative purposes. The specimens from Florida, the West Indies, the Bahamas, and the Caribbean area are all *J. lamprotaenia* (Gosse, 1851, p. 291, pl. 1, fig. 2). Those from Bermuda proved to be a different species which is described as new in the present paper. The nominal species *J. stolifera*, described from Key West, Fla., by Jordan and Gilbert (1885, p. 25) as *Dussumieria stolifera*, has been shown to be a synonym of *Jenkinsia lamprotaenia* by Beebe and Tee-Van (1928, p. 44), Parr (1930, p. 3), and Hildebrand (*in* Longley and Hildebrand, 1941, p. 12).

I am grateful to Dr. Leonard P. Schultz for allowing me to report on this interesting new species, and to Dr. Samuel F. Hildebrand for reading the manuscript critically. The photograph reproduced in this paper was made by Gurney I. Hightower, photographer, United States National Museum.

Measurements are expressed as the number of times a given part is contained either in the standard length, measured from the tip of the snout (anterior tip of upper lip) to the caudal base, or in the length of the head, from the tip of the snout to the extreme margin of the opercular membrane. Owing to the small size of the specimens, it was found desirable to make all measurements under magnification. The last ray, in the dorsal and anal fins, although double, was counted as a single ray. The transverse scale rows were counted from the upper end of the opercular margin to the caudal base; the longitudinal rows were counted between the origins of the dorsal and pelvic fins.

Throughout the description, the proportions and counts of the holotype are given first, followed in parentheses by those of the paratypes.

Genus *JENKINSIA* Jordan and Evermann

Jenkinsia JORDAN and EVERMANN, 1896, p. 418 (original diagnosis; genotype: *Dussumieria stolidifera* Jordan and Gilbert).

JENKINSIA BERMUDANA, new species

Figure 1

Green fry, dwarf herring

Jenkinsia stolidifera (not *Dussumieria stolidifera* Jordan and Gilbert) FOWLER, 1930, p. 145 (material; Bermuda).

Jenkinsia lamprotaenia (not *Clupea lamprotaenia* Gosse) BEEBE and TEE-VAN, 1933, p. 37 (common names; field characters; diagnosis; distribution in part: Bermuda only), fig. (drawing). Hollister 1936, p. 276 (caudal skeleton), figs. 40-44 (drawings of tail).

The holotype is an adult specimen 45 mm. in standard length (U.S.N.M. No. 100546), collected by the United States Coast and

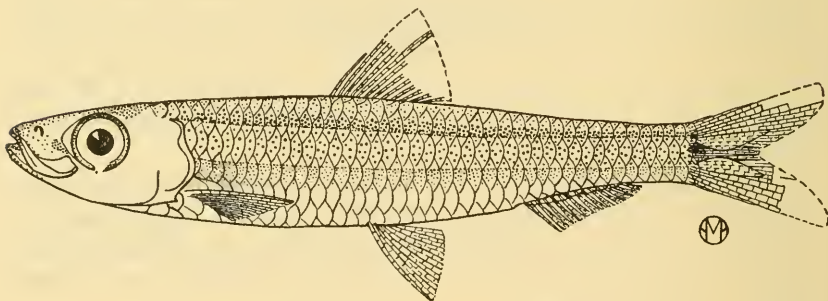


FIG. 1.—*Jenkinsia bermudana*, new species. From the holotype, 45 mm. in standard length, U.S.N.M. No. 100546, collected off Bermuda. (Drawn by Mrs. Aime M. Awl.)

Geodetic Survey Steamer *Bache* (*Grampus*), off Bermuda (Sta. 10178; see Bigelow, 1917), on February 17, 1914. Fourteen paratype specimens 33 to 48 mm. in standard length (U.S.N.M. No. 124329) were collected with the holotype.

Predorsal contour convex to occiput, the rest almost straight. Body slender, its greatest depth, 5.3 (5.3 to 6.4) in standard length, 1.4 (1.4 to 1.8, usually 1.5 or 1.6) in head, 1.3 (1.2 to 1.7, usually 1.3 to 1.6) in distance between origins of pelvic and anal fins. Head, 3.7 (3.6 to 3.9, usually 3.7 or 3.8) in standard length; its greatest width, 2.2 (2.2 to 2.4, usually 2.3) in its length. Least depth of caudal peduncle, less than eye, 3.5 (3.3 to 3.7, usually 3.4 to 3.6) in head. Eye, 2.9 (2.9 to 3.2, usually 3.0 or 3.1) in head, 2.7 (2.4 to 2.9,

usually 2.5 to 2.8) in distance between origins of pelvic and anal fins. Snout less than eye, 3.4 (3.3 to 3.6) in head. Interorbital, 4.6 (4.3 to 4.7) in head. Maxillary, 2.5 (2.4 to 2.6, usually 2.5) in head, not quite reaching to anterior margin of pupil. Lower jaw somewhat projecting beyond upper.

Dorsal rays, 12 (11 to 13, usually 12); anal, 14 (14 or 15, usually 14); pectoral, 13 (13 or 14); pelvic, 8. Origin of dorsal fin nearer tip of snout than caudal base, about midway between origin of anal and posterior margin of orbit. Origin of anal fin about midway between origin of pelvic and caudal base. Origin of pelvic fin below fifth or sixth ray of dorsal; nearer anterior margin of orbit than caudal base. Distance between origin of pelvic and tip of mandible, 1.8 (1.8 or 1.9, usually 1.8) in standard length. Distance between origin of pelvic fin and caudal base, 1.2 (1.1 or 1.2) in distance between origin of pelvic and tip of mandible. Distance between origins of pelvic and anal fins, 2.4 (2.2 to 2.5, usually 2.3 or 2.4) in distance between origin of pelvic and tip of mandible.

Gill rakers, 29 (27 to 30, usually 28 or 29) on lower limb of first arch. Scales nearly all lost, in about 40 transverse rows, and 6 longitudinal rows.

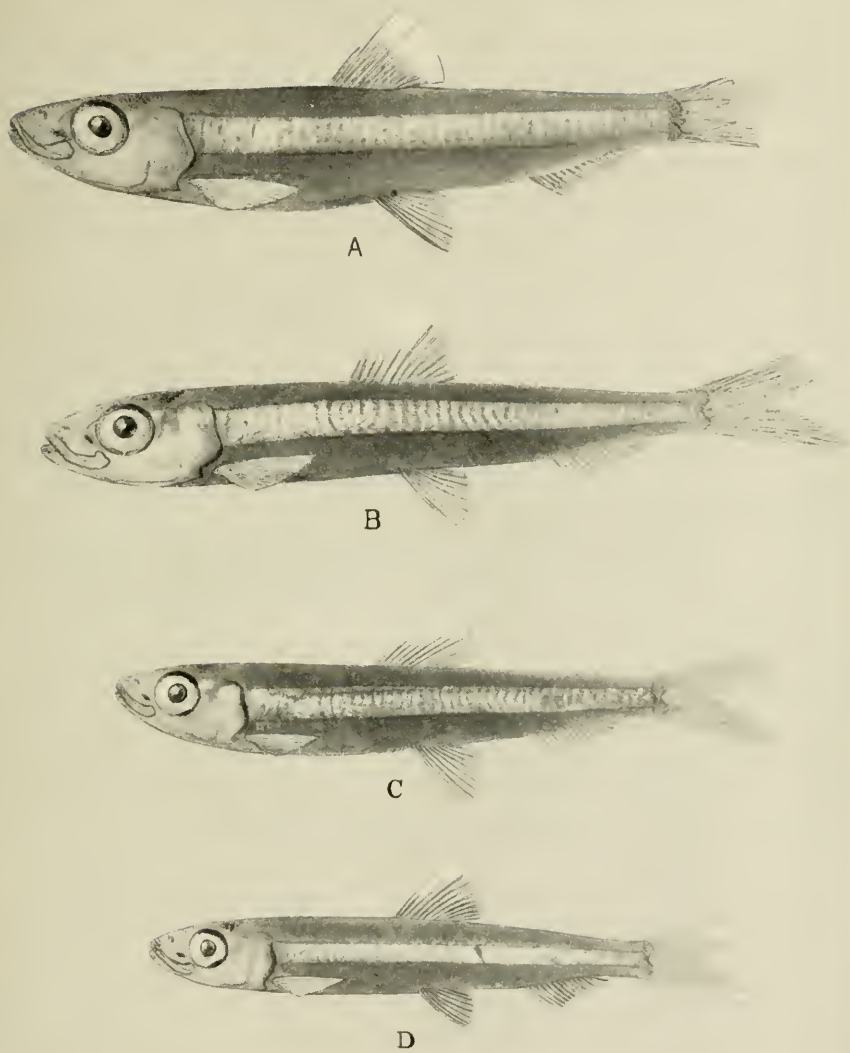
General coloration (in 70 percent alcohol) yellowish brown. A lateral bright silvery streak narrower than eye from shoulder girdle to caudal base. A similar, much narrower streak along the midventral line from the base of the pelvic fins to the anus. A middorsal double series of chromatophores from the occiput to the caudal origin. Belly silvery white. Opercular plates silvery. A dark brown blotch on top of head behind eyes. Iris silvery. Fins colorless.

This species differs from *Jenkinsia lamprotaenia*, the only other known member of the genus, in the number of gill rakers and the position of the pelvic fins, as shown in the following key. Both species are very closely related and are exactly alike in external appearance and coloration. A fairly good description of *J. lamprotaenia*, including references and a figure, has been given by Fowler (1944, p. 123).

- Gill rakers in moderate number, 19 to 24, usually 20 to 23 on lower limb of first arch. Origin of pelvic fin midway between anterior margin of orbit and caudal base, or nearer caudal base. Florida Keys, Bahamas, West Indies, and Caribbean Sea.....*Jenkinsia lamprotaenia*
- Gill rakers more numerous, 27 to 30, usually 28 or 29 on lower limb of first arch. Origin of pelvic fin nearer anterior margin of orbit than caudal base. Bermuda.....*Jenkinsia bermudana*

LITERATURE CITED

- BEEBE, W., and TEE-VAN, J.
 1928. The fishes of Port-au-Prince Bay, Haiti. *Zoologica*, vol. 10, No. 1, pp. 1-279, figs.
 1933. Field book of the shore fishes of Bermuda, pp. i-xiv, 1-337, 343 ills. G. P. Putnam's Sons, New York.
- BIGELOW, H. B.
 1917. Explorations of the United States Coast and Geodetic Survey Steamer "Bache" in the Western Atlantic, January-March, 1914, under the direction of the United States Bureau of Fisheries-Oceanography. Rep. U.S. Comm. Fish., 1915, app. 5, pp. 1-62, map.
- FOWLER, H. W.
 1930. Notes on Tropical American fishes. *Proc. Biol. Soc. Washington*, vol. 43, pp. 145-148.
 1944. The fishes. *In* Results of the fifth George Vanderbilt Expedition (1941) (Bahamas, Caribbean Sea, Panama, Galapagos Archipelago and Mexican Pacific Islands). *Acad. Nat. Sci. Philadelphia Monogr.* No. 6, pp. 57-529, figs. 1-268, pls. 1-20.
- GOSSE, P. H.
 1851. A naturalist's sojourn in Jamaica, pp. i-xxiv, 1-508, pls. 1-7. London.
- HOLLISTER, G.
 1936. Caudal skeleton of Bermuda shallow water fishes. I. Order Isospondyli: Elopidae, Megalopidae, Albulidae, Clupeidae, Dussumieriidae, Engraulidae. *Zoologica*, vol. 21, pt. 4, pp. 257-290, figs. 1-53.
- JORDAN, D. S., and EVERMANN, B. W.
 1896. The fishes of North and Middle America. *U.S. Nat. Mus. Bull.* 50, pt. 1, pp. i-lx, 1-1240.
- JORDAN, D. S., and GILBERT, C. H.
 1885. Descriptions of ten new species of fishes from Key West, Florida. *Proc. U. S. Nat Mus.* vol. 7, pp. 24-32.
- LONGLEY, W. H., and HILDEBRAND, S. F.
 1941. Systematic catalogue of the fishes of Tortugas, Florida, with observations on color, habits, and local distribution. *Pap. Tortugas Lab.*, vol. 34, *Carnegie Inst. Washington Publ.* No. 535, pp. i-xiii, 1-331, pls. 1-34.
- PARR, A. E.
 1930. Teleostean shore and shallow-water fishes from the Bahamas and Turks Island. *Bull. Bingham Ocean. Coll.*, vol. 3, art. 4, pp. 1-148, figs. 1-38.



JENKINSIA BERMUDANA. NEW SPECIES

A, holotype, 45 mm. in standard length, U.S.N.M. No. 100546; B-D, paratypes, 44, 37, and 33.5 mm. in standard length, U.S.N.M. No. 124329.