

it to be identical with the European species of the same genus. In this he was followed by Dr. DeKay, in his *Fishes of New York*, published in 1842. In 1845, in his *Synopsis of the Fishes of North America*. Dr. Storer adopted for the American eusk the name *Brosmius flarescens*, which had been given in 1819 by Le Sueur to a supposed new species from Marblehead, Mass., characterized in his figures and descriptions by a prolonged lower jaw and a double barbel.\*

We believe that the specimen described by Le Sueur was a deformed individual of the common species, but this is a mere matter of opinion, and in any event the name cannot be used. In 1863, Professor Gill substituted the specific name *americanus* for the name *flarescens* adopted by Storer.

After a careful examination and comparison of two specimens from Europe (No. 17,366, Norway, Bergen Museum) with specimens from Massachusetts Bay, we are compelled to believe that the common eusk of New England is identical with that of Europe. In the proportions of their bodies they agree exactly, and the Norwegian specimens agree in every respect with Storer's description of *Brosmius flarescens* in his *History of the Fishes of Massachusetts*. The radial formulae of three specimens are given below:

No. 17366 A.	Bergen.	D. 91.	A. 75.
No. 21813.	Gloucester.	D. 97.	A. 75.
No. 17366 B.	Bergen.	D. 99.	A. 73.

DECEMBER, 1878.

**ON THE MORTALITY OF FISHES IN THE GULF OF MEXICO IN 1878.**

By **Lieut. J. P. JEFFERSON, U. S. A.**

KEY WEST, FLORIDA.

Prof. SPENCER F. BAIRD,

*Smithsonian Institution, Washington, D. C.:*

PROFESSOR: I have the honor to acknowledge the receipt of your valued favor of October 30th, which reached me after a delay, I being absent from Fort Jefferson. This absence, coupled with my wish to get all possible facts in regard to the destruction of fish in these and neighboring waters, will account for my apparent tardiness.

Since my communication in October another large body of the dark-colored water described therein made its way down the coast, across Florida Bay, striking Tortugas about the 20th of November, and extending up the reef as far as Key West, probably further. At Key West its approach could be seen distinctly; at first, belts of it, some narrow, others broad, came into the harbor, following the various channels leading to the northward, and only in these belts were the fish affected: in the course of twenty-four hours, however, all the water in the harbor was similarly colored, and the surface was covered with dead and dying fish.

\* Mémoires du Muséum, v, 1819, p. 158, pl. xvi.

They seemed to be affected very much as I have seen them when "fish berries" were thrown into a pond—coming to the surface, swimming around in circles, sometimes on the side or back, the movements growing weaker rapidly and ceasing altogether in 20 or 30 minutes. I noticed one fact which may or may not be of importance: I took a small fish, known here as a cow-fish, from the water when just about dead, and, having examined it for a minute or two, cast it back, when, to my surprise, it swam off briskly, going down at once.

As in the previous instance, the shores at Fort Jefferson and neighboring keys were covered with fish, and here, at Key West, the north side of the island was in similar condition. From correspondence and conversation I have gathered, in addition to the above, the following facts, some, and possibly all, of which may be of interest.

A fishing-smack sailed some 70 or 80 miles to the westward from Fort Jefferson without getting clear of the water. Another smack found the surface of the water out some 15 miles in the Gulf Stream covered with dead fish—large sharks, turtles, king-fish, &c., but no porpoises, and, as far as I have heard, no dead porpoises have been seen. An officer coming over from New Orleans by steamer was more than 12 hours passing through a field of dead fish. Oysters in Tampa Bay were killed by the water. In October the Caloosahatchee River overflowed its banks along its entire length except at a bluff at Fort Meyers, and the whole country in that section was under water, reported to be the result of the overflow of Lake Okeechobee. A gentleman who knows that part of the State well tells me that the swampy land bordering on Okeechobee is grown up largely with dogwood; the water in the lake gradually rising and spreading over the surrounding marshes or swamps probably kept these dogwood trees wholly or partly submerged for weeks, until the divide between Okeechobee and the headwaters of Caloosahatchee River gave way. In the possible poisonous effect of water impregnated with dogwood, &c., a theory of the cause of the loss of fish-life may be found. I understand from Dr. Joseph Y. Porter, U. S. A., that he forwarded to your address a bottle of water. I am in hopes that an analysis of it will enable you to settle the question; if so, I would be indebted greatly to you if you would inform me.

In regard to my former letter, you can make any use of it you desire, as well also as this. I am happy to know that you consider the subject of some importance. I feared that I might be imposing upon your valuable time.

If there are any of the small fish of this vicinity which you desire I will be glad to do what I can towards obtaining them, either preserved in spirits or the skins. Please give me common names, if possible; for I have no books and no technical knowledge.

I am, sir, very respectfully, your obedient servant,

J. P. JEFFERSON,  
*Lieutenant Fifth Regiment Artillery.*