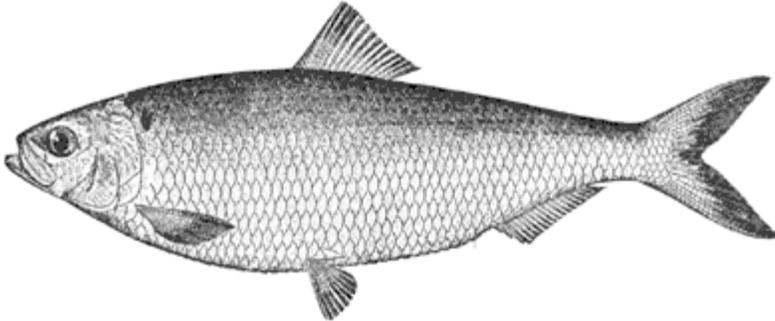


Blueback *Pomolobus aestivalis* (Mitchill) 1815

GLUT HERRING; SUMMER HERRING; BLACKBELLY; KYACK

[Jordan and Evermann, 1896-1900, p. 426.]

Figure 47.—Blueback (*Pomolobus aestivalis*), Chesapeake Bay region specimen. From Goode. Drawing by H. L. Todd.**Description—**

Bluebacks and alewives are difficult to distinguish; experienced fishermen who recognize the existence of the two separate fish cannot always tell them apart, so closely do they resemble one another in general appearance. The most obvious external difference between them is that the back of the blueback is definitely blue green, that of the alewife gray green. But this applies only to fresh-caught fish; preserved specimens do not differ much in color, or fish that have been on ice for more than a short time. Another external difference is that the eye of the blueback is only about as broad as the distance from front of eye to tip of snout (or slightly broader), but is appreciably broader than that in the alewife; the blueback, too, with body about 3½ times as long as deep, is a slightly more slender fish (on the average) than the alewife, and its fins are a little lower, but the two species probably intergrade in both these respects.

The most dependable distinction between the two (though requiring the use of a knife) is that the lining of the belly cavity is sooty or blackish in the blueback, but pearl gray or pinkish gray in the alewife. We have yet to see a specimen that could not be named as the one or the other on this basis alone, unless so poorly preserved that the original shade of the cavity could no longer be determined.

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Color—

Dark blue or bluish gray above, the sides and belly silvery, with coppery reflections at least in some waters; lining of the belly sooty or blackish.

Size—

The blueback attains about the same size as the alewife, i. e., 15 inches; the adults average about 11 inches in length and about 7 ounces in weight.

Habits—

The blueback, like the alewife, makes its growth in salt water, but runs up into fresh water to spawn. And its breeding habits do not differ in any important particular from those of the alewife, except that it "runs" later in the season, does not run up as far above tidewater, and does not spawn until the water is much warmer, 70° to 75° instead of 55° to 60°. [90] The eggs, about 1 mm. in diameter, sink like those of the alewife, and stick to anything they may chance to touch. Incubation occupies only about 50 hours at a temperature of 72°. The young are 30 to 50 mm. long within a month and already show most of the diagnostic characters of the adult. Evidently they soon find their way down to the sea, for bluebacks of 50 mm. have been seined in abundance in Rhode Island waters late in July. [91] Nothing whatever is known of their later rate of growth. The spent fish, return to sea shortly after spawning as do alewives. Practically nothing is known of their movements in the sea, except that they are schooling fishes. The fact, however, that 7 were trawled by the *Albatross II* on March 5, 1931 about 100 miles off Cape May, N. J., suggests that the blueback moves out from land and passes the cold season near the bottom.

We need only note further that the blueback is as gregarious as the herring or alewife; that it is equally a plankton feeder, subsisting chiefly on copepods and pelagic shrimp, as well as on young lance and, no doubt, on other small fish fry.

General range—

This is a more southern fish than the alewife, occurring along the American coast as far south as northern Florida; as far north as southern New England in abundance, perhaps less regularly in the Gulf of Maine though widespread there, and known definitely as far north as Cape Breton, Nova Scotia: [92] it spends most of its life in salt water but runs up into fresh water to spawn.

Occurrence in the Gulf of Maine—

Although fishermen have recognized the existence of two distinct species of alewives at least since 1816, it is difficult to arrive at a just idea of the status and migrations of this fish in our Gulf, because fish reported as "bluebacks" at sea sometimes turn out to be alewives, while the late runs of alewives are often referred to as "bluebacks." It seems, however, that schools of bluebacks are to be expected anywhere between Cape Sable and Cape Cod. Thus we have seen "gaspereau" fresh caught at Yarmouth, Nova Scotia, that appeared to be bluebacks. [93] Huntsman had specimens from St. John Harbor and Shubenacadie River; they are reported, at least by name, from the St. Croix River; from Dennys River, Eastport; Bucksport; Casco Bay; Small Point; Freeport; and sundry other localities along the coast of Maine, as well as from the shores of Massachusetts Bay, including Cape Cod.

L. W. Scattergood of the U. S. Fish and Wildlife Service has sent us about 40 typical bluebacks, about 3¾ to 5½ inches (92-124 mm.) long taken at Hodgdon Island, Sheepscot River, Maine, June 14, 1951; and we once saw thousands of fish taken from a trap near Gloucester, most of which we judged to be bluebacks from their color. [94] A few fish were reported as "bluebacks" from Georges Bank during the investigation of 1913, and while there is no way, now, of checking whether these actually were bluebacks or alewives, the fact that we saw 10 bluebacks about 1 foot long, trawled by *Albatross III* at the 45 fathom line off southern New England, in mid-May, 1950, [95] shows that they may spread as far offshore as alewives.

No definite information is at hand as to how regularly alewives run into our Gulf of Maine streams, for spawning; or what streams they enter at all.

No distinction is made, commercially, on our coast between the blueback and the more abundant alewife; it is equally useful for bait and for food.

[90] The early development and larval stages of the blueback are described by Kuntz and Radcliffe (Bull. U. S. Bur. Fish., vol. 35, 1918, pp. 87-134).

[91] In Chesapeake Bay, Hildebrand and Schroeder (Bull. U. S. Bur. Fish., vol. 43, 1928, p. 88) found that while most of the young bluebacks pass out to sea during the summer and fall, some remain in the deeper holes over the winter. By the following March when about a year old these are about 3½ to 4 inches long; those in the sea may grow faster than this.

[92] Dr. A. H. Leim has sent us four typical bluebacks about 12 inches long, taken at Cape Breton, Nova Scotia, in 1950.

[93] We had no chance to examine them critically.

[94] We did not then appreciate the desirability of positive identification.

[95] Lat. 40° 06'; long. 71° 38' W.

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