

## Common Hammerhead

*Sphyrna zygaena* (Linnaeus) 1758  
[Bigelow and Schroeder, 1948, p. 436.]

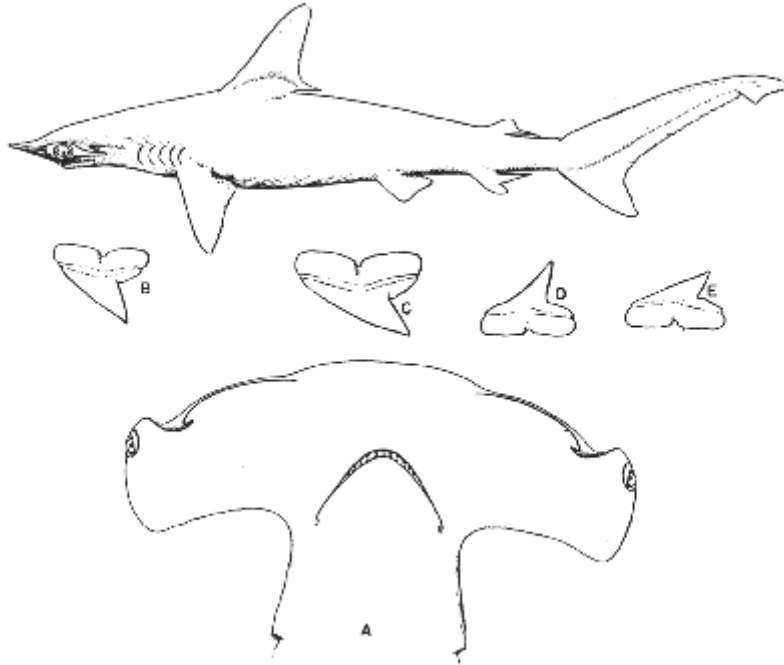


Figure 16 - Common hammerhead (*Sphyrna zygaena*), female, about 27 inches long, from Nahant, Massachusetts.

- A, head from below, about one-third natural size;
  - B, second upper tooth;
  - C, ninth upper tooth;
  - D, third lower tooth;
  - E, ninth lower tooth; about 4 times natural size.
- From Bigelow and Schroeder. Drawings by E. N. Fischer.

## Description

The very differently shaped head of the hammerhead, the shape of its anal fin with much more deeply concave posterior margin, and the fact that the outermost four or five of its lower teeth on each side are blade-like, like those nearer the center of its mouth, are ready field marks to separate the hammerhead from the shovelhead. The anal fin, too, is only about as large as the second dorsal in the hammerhead (considerably larger than the second dorsal in the shovelhead). Otherwise the positions and shapes of the fins and the size and shape of the tail are much alike in the two species.

## Color

Leaden or brownish gray above, shading along the sides to pure or grayish white below; the tips and edges of the dorsal and caudal fins are more or less dusky; and the tips of the pectorals are black on some specimens.

## Size

It appears that hammerheads are commonly about 19 to 20 inches long when they are born; seemingly, they mature sexually at about 7 to 8 feet; they are often taken 9 to 11 feet long, and occasionally as long as 12 to 13 feet.[12] Most of those that visit southern New England are less than 6 to 7 feet long, some very small indeed.[13] In 1805, however, one of 11 feet was netted at Riverhead, L. I. And the fact that it contained parts of a man in its stomach has been chiefly responsible for the bad reputation of this species of hammerhead.

Two other large sharks closely related to the common hammerhead, the tropical hammerhead (*Sphyrna lewini* Griffith, 1834)[14] and the great hammerhead (*Sphyrna mokarran* Ruppell, 1835)[15] occur along the South Atlantic coast of the United States. The first of these, in particular, might stray as far as Cape Cod, as many tropical fishes do, for it has been recorded from the offing of Cape May, New Jersey. They resemble the common hammerhead closely in general appearance, but both of them may be distinguished from the latter by the fact that the front outline of their head is scalloped in the midline, not evenly rounded there as it is in the common hammerhead. For further accounts of them, see Bigelow and Schroeder.[16]

## Habits

Since hammerheads are an accidental visitor to the Gulf, we need only remark that they are pelagic in habit, often swimming with dorsal and caudal fins out of water, and are to be met with indifferently out at sea or near land. They feed chiefly on fish, including smaller sharks (including their own kind), and sting rays, the tail spines of which are sometimes found imbedded in their jaws. Like tiger sharks, they make themselves a pest in warmer latitudes where fisheries for sharks are carried on, by devouring those that they find entangled in the nets. As many as 30 to 37 embryos have been found in a gravid female, and the embryos do not develop any placental connection with the mother, so far as is known.

## General Range

Widespread in the tropical to warm temperate belts of the Atlantic, of the Pacific, and probably of the Indian Ocean as well; north commonly to southern New England, straying to Massachusetts Bay and as far as Halifax, Nova Scotia.[17]

## Occurrence in the Gulf of Maine

Hammerheads (often in small schools) wander northward every summer, along the Atlantic seaboard; they are often to be seen basking at the surface (some harpooned) a few miles out, off Marthas Vineyard and Nantucket; and one is occasionally taken in one or another of the fish traps near Woods Hole. But the longitude of Cape Cod so sharply bounds their yearly dispersal that the only records from the Gulf of Maine, or from Nova Scotia waters, are of stray specimens from Chatham and Provincetown on the outer shores of the Cape; of one about 27 inches long from Nahant, in the inner part of Massachusetts Bay;[18] of two small ones recently from Casco Bay;[19] of one taken many years ago, off Brier I., on the Nova Scotian side of the Bay of Fundy;[20] of a 12-footer harpooned between Georges and Browns Banks in August 1928 by the sword fishing schooner Doris M. Hawes; of a small one caught in Halifax Harbor, Nova Scotia, in September 1932;[21] and of another about 21 inches long taken in a trap off Sambro Head, near Halifax, August 25, 1938.[22]

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[12] the larger hammerheads that are sometimes reported probably are not this species, but the great hammerhead (*Sphyrna mokarran*).

[13] Dozens of little ones, of about 2½ feet, have been seined on the outer shore of Long Island, N. Y., in August.

[14] the account of this species, in Bigelow and Schroeder, (Fishes of the Western North Atlantic, Pt. 1, 1948, p. 415) was as *diplana* Springer, 1941. But Fraser-Brunner (Rec. Austral. Mus., vol. 22, No. 3, 1950, pp. 213-214), has shown that it cannot be separated from the Indo-Pacific *S. lewini* of Griffith, 1834, a much older name.

[15] Tortonese has recently pointed out (Ann. Mag. Nat. Hist. Ser. 12, vol. 3, No. 36, 1950, p. 214) that the name *tudes* Valenciennes 1822 that has been applied commonly to the great hammerhead of the Atlantic actually belongs to a different species; consequently that the correct name of the great hammerhead is *mokarran* Ruppell, 1835, it being identical with that Indo-Pacific species.

[16] Fishes Western North Atlantic, Pt. 1, 1948, pp. 415, 428.

[17] For further details of distribution, see Bigelow and Schroeder, Fishes of the Western North Atlantic, Pt. 1, 1948, p. 442.

[18] This specimen, obtained many years ago by Louis Agassiz, is in the Museum of Comparative Zoology.

[19] Seen in the fish market at Portland, Maine, by the late Walter H. Rich.

[20] McKenzie, Proc. Nova Scotia Inst. Sci., vol. 20, 1939, p. 13.

[21] Vladykov, Proc. Nova Scotia Inst. Sci., vol. 19, Pt. 1, 1935. p. 8.

[22] McKenzie, Prov. Nova Scotia Inst. Sci., vol. 20, 1939, p. 13.

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**Fishes of the Gulf of Maine** by Bigelow & Schroeder is the seminal work on North Atlantic fishes. It was originally published in 1925 with William Welsh, a Bureau of Fisheries scientist who often accompanied Henry Bigelow on his research cruises. In the late 1920's, Bigelow began a long association with William C. Schroeder, publishing a number of papers and reports on fishes of the North Atlantic, including the first revision of Fishes of the Gulf of Maine. This excerpt is from that 1953 edition.

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