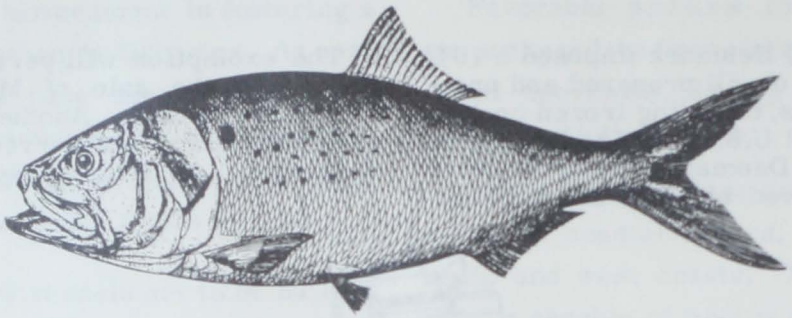
FOOD FISH FACTS



MENHADEN

Atlantic (Brevoortia tyrannus)

Gulf or largescale (Brevoortia patronus)

Menhaden, also called pogy, mossbunker, or fatback, are members of the herring family. Although seldom used for human consumption, menhaden are of great industrial importance. These fish have a tendency to school according to size and age. This habit, varying from hundreds to thousands of individuals in a school, makes netting them relatively easy for fishermen.

In calm weather menhaden in vast schools may be seen lifting their snouts up out of the water as they feed and they occasionally break through with their top fins and tails. These large groups of fish are a sight not easily forgotten as they swim together side by side, tier above tier, in perfect unison. The schools are often so dense they seem to darken the surface like great cloud shadows hovering over the waters of the Atlantic and Gulf Coast.

DESCRIPTION

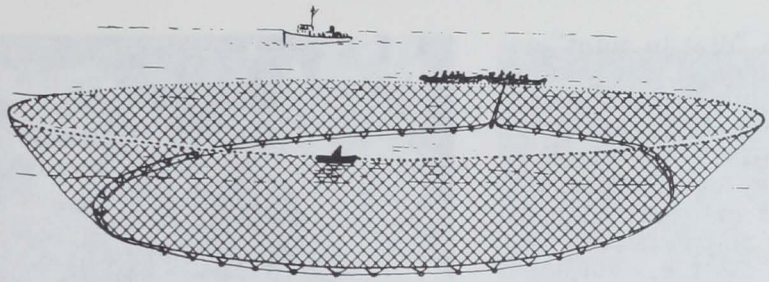
Menhaden vary in color from dark blue to green, blue gray, or blue brown above and have silvery sides, belly, and fins with a yellow or brassy luster. There is a conspicuous dusky spot on each side of the fish behind the gill openings followed by a varying number of smaller dark spots. They are somewhat flattened sidewise like other members of the herring family and the body is about three times deep as long. The scaleless head is very large in proportion to the body. The body scales are nearly vertical (not rounded) and are edged with long comblike teeth instead of being smooth. The large gaping mouth is toothless and the lower jaw projects beyond the upper. The tail is deeply forked. Menhaden feed on microscopic plants and small crustaceans which are sifted out of the water with highly specialized, sievelike gill rakers. Adults average from $\frac{1}{3}$ to 1 pound in weight and from 12 to 15 inches in length.

HABITAT

Menhaden occur in temperate waters along the coast of North America. Atlantic menhaden are found from Nova Scotia to central Florida. Gulf menhaden occur from southern Florida to Veracruz, Mexico. They are not equally abundant throughout their range but are concentrated in certain localities during certain periods of the year. They live in near-surface waters over-lying the inner half of the Continental Shelf during the warmer months. They are rarely seen in surface waters during the colder months and there is evidence that during this period they live in deeper waters over the Continental Shelf. Although they have a definite pattern of migration, menhaden are found at all times of year in Chesapeake Bay.

MENHADEN FISHING

The menhaden fishery is one of the oldest industries in the United States. History records that Indians taught early settlers to place a fish in each hill of Indian corn. It is not known whether all of the settlers followed this practice. The information, however, did lead to the utilization of menhaden for soil enrichment when crops became poor. Use of menhaden as fertilizer was the first stage in



Menhaden
Purse Seine

the development of a fishery which was to become the largest in North America.

Menhaden are caught with purse seines operated from two open seine boats. When laying the seine, the boats separate and the net is laid out as each boat completes a half-circle. When the school is surrounded, the bottom of the seine is closed or "pursed" confining the fish. The ends and bottom of the seine are hauled in and the catch is pumped into the hold of the carrier vessel standing by. Since 1946 airplanes have been used extensively in locating the schools of fish. This practice of directing the laying of the seine around a school of menhaden from the air by radio communication between the pilot and the fishing captain has been universally adopted. A smaller amount of menhaden are caught in pound nets. This catch is incidental, however, as the pound nets are usually set for other species.

CONSERVATION AND MANAGEMENT

Scientists of the United States Department of Commerce's National Marine Fisheries Service, the Virginia Institute of Marine Science, and of several other state agencies along the east coast have done extensive research on menhaden over the past years. Information concerning life history, migrations, growth, and mortality has been gathered. Studies have been made of the causes of fluctuations in abundance and techniques developed for predicting the density of populations. Increased fishing and declining catch in recent years have raised serious questions about the need for management of this valuable resource. Fishing regulations have been in effect for several years. Continuing research, tagging experiments, offshore fishing for older menhaden, and investigations into the commercial potential of two closely related species are a part of the conservation and management plans of concerned scientists.

USES OF MENHADEN

Menhaden are a valuable part of our economy. The catch is processed into fish meal, oils, and solubles and these products are used in dozens of ways. The meal, high in protein, minerals, and other essential nutrients, is excellent as an additive for the feeding of hogs, poultry, mink, and other animals. The oils and solubles are used in the manufacture of paints, putties, resins, lubricants, caulking compounds, brake blocks, soaps, cosmetics and other pharmaceuticals, and for tanning leather. This fishery provides employment for thousands of people, not only on the vessels and in the processing plants, but all through hundreds of related industries. (National Marketing Services Office, NMFS, U.S. Dept. of Commerce, 100 East Ohio Street, Room 526, Chicago, Ill. 60611.)