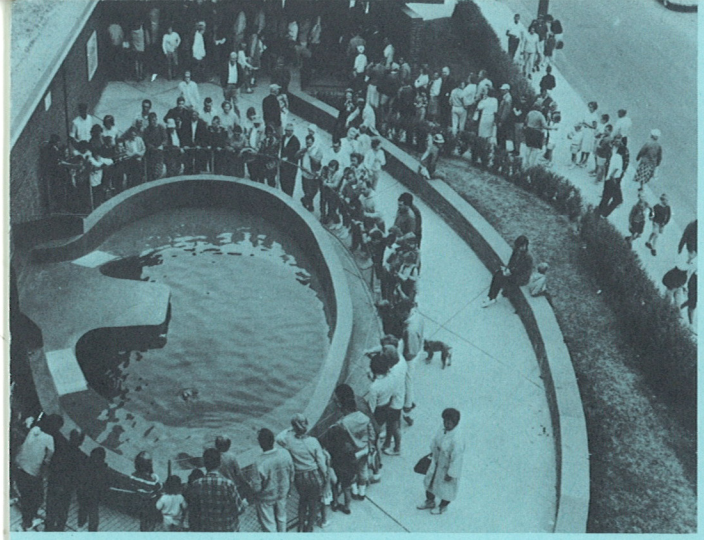
Bureau of Commercial Fisheries Biological Laboratory

Woods Hole, Massachusetts

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE
Bureau of Commercial Fisheries

Circular 314



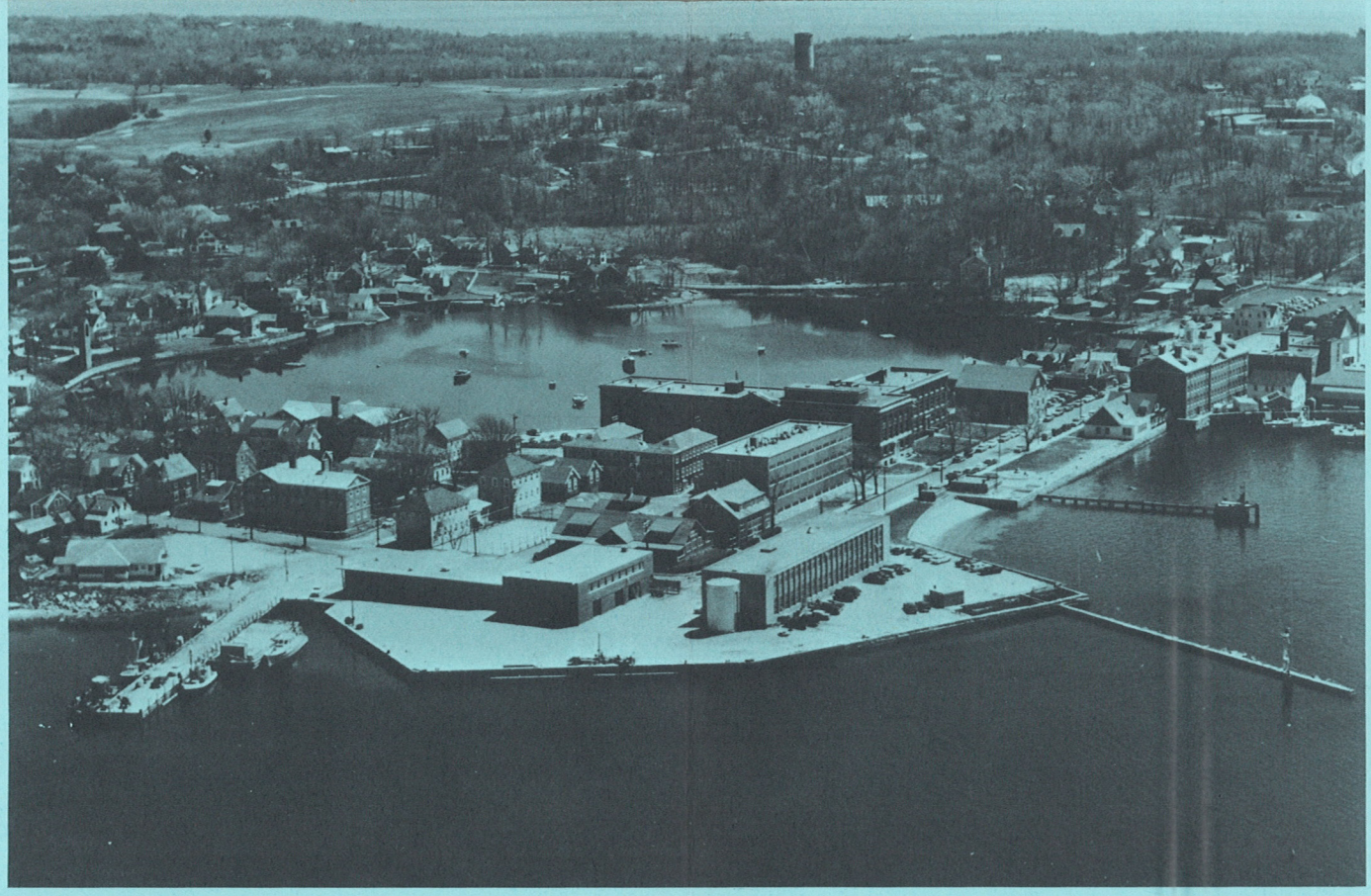
Center of attention is the harbor seal in the salt-water pool adjacent to the aquarium entrance.

The Bureau of Commercial Fisheries Biological Laboratory, Water Street (mail address: P.O. Box 6), Woods Hole, Mass. 02543, is the oldest permanent marine laboratory in the United States. It was established by Spencer Fullerton Baird, the first U.S. Commissioner of Fish and Fisheries, in 1875 although land for a permanent building was not acquired until 1883. The town of Woods Hole also has two other prominent marine research organizations: the Marine Biological Laboratory, established in 1888, and the Woods Hole Oceanographic Institution, established in 1930.

The Laboratory's first permanent home, constructed in 1884, withstood the onslaught of three hurricanes before it was razed in 1958 to make room for a modern 3-story structure. The new laboratory-office building has 24,000 square feet of floor space, 33 research rooms, a large tank room, a running salt-water system on the first floor, an extensive library, a conference room, and administrative offices. A second building houses the aquarium, the automatic data processing unit, and the maintenance shop. Other physical facilities include an outdoor salt-water pool and a deep-water dock for the *Albatross IV*, the 187-foot fishery-oceanography research vessel that operates in the northwestern Atlantic. The *Blueback*, a 40-foot motorboat, is used for inshore collecting. The laboratory has about 70 employees of whom 20 are professionals.

(Cover)

Scientists and crew of the *Albatross IV* brave severe winter storms in the North Atlantic to carry out offshore groundfish sampling which provides data needed for research programs.



Aerial view showing BCF Biological Laboratory, aquarium-service building and dock in foreground on Great Harbor. The large, L-shaped building on Eel Pond is the Marine Biological Laboratory; the complex of buildings in the upper right constitute the Woods Hole Oceanographic Institution. These three agencies cooperate on research projects of mutual interest and in the use of special facilities.

In the early years of the Laboratory Spencer Baird established the first aquarium at Woods Hole to acquaint the general public with the aims and achievements of Federal Government research in conservation of marine resources. The present aquarium is still dedicated to those principles; it has 16 tanks that exhibit local species of fish and marine life and an experimental tank area. The tanks use sea water that is filtered and temperature controlled. Special exhibits related to the Laboratory's work are a feature of the aquarium, which is open to the public from early June to late September. On an average day, 3,000 persons visit the aquarium. Tours for special groups are given throughout the year by advance arrangement with the Laboratory Director.

Research programs are focused on the important offshore groundfish that support New England's commercial fisheries—their life history, ecology, and conservation. Principal species under study are cod, haddock, silver hake, redfish, flounder, and sea scallop. Particular emphasis is placed on the study of population changes in these and associated species of groundfish. The studies include assessment of the effects of fishing upon the number of fish available to the industry and the effects of the environment—temperature, currents, and chemical constituents of sea water. As the center of United States research related to the ICNAF (International Commission for the Northwest Atlantic Fisheries) in which 14 member countries participate, the Laboratory is responsible for carrying out research commitments of the United States in the Convention area.

The Laboratory makes annual forecasts of abundance of the various species of groundfish and sea scallops. The effect of fishing on the important commercial species has been determined and, on the basis of Laboratory findings, international management measures have been put into effect through ICNAF. In cooperation with the Woods Hole Oceanographic Institution and the U.S. Geological Survey, a comprehensive survey has been

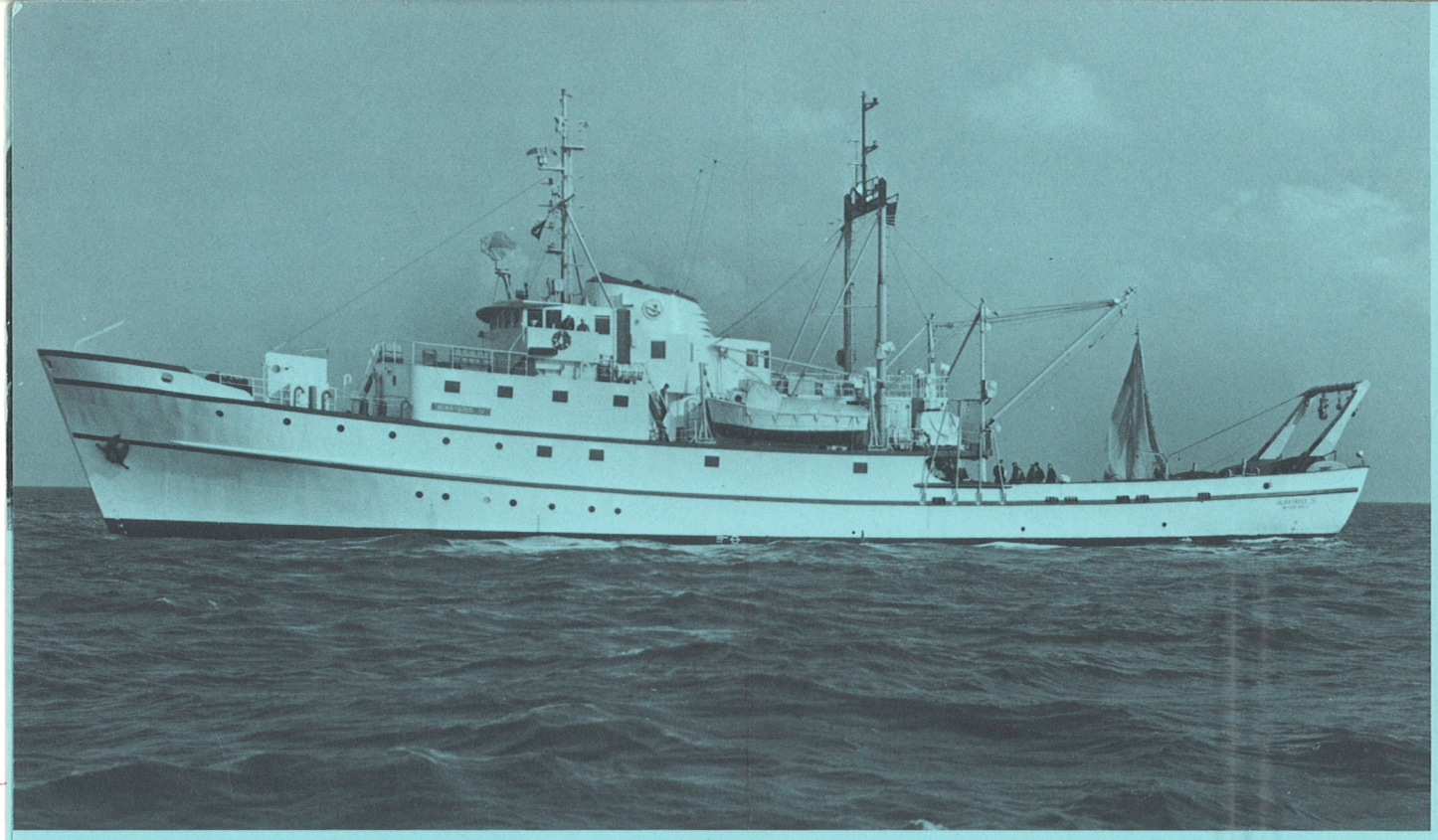
The cod, one of the most widely fished species in the North Atlantic, lives on offshore banks and along our coasts from Maine to Virginia.

made of bottom-dwelling organisms on the Continental Shelf from Nova Scotia to New York. These organisms, many of which are the food of groundfish, are very important parts of the ecological web of life in the sea.

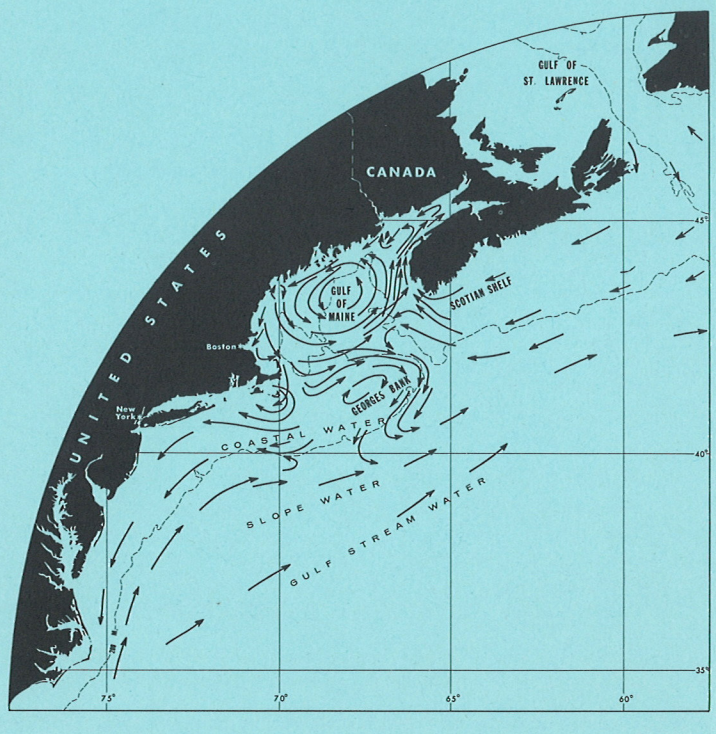
A 3-year series of bottom surveys provided a base of knowledge of the seasonal changes in groundfish communities in the area. Growth rates of many species have been determined, the young stages identified, and the environmental conditions in relation to survival at various stages in the life cycle have been assessed.

Visiting investigators can be provided laboratory space with running sea water and space on the *Albatross IV*. Arrangements for space should be made with the Laboratory Director well in advance of the reservation dates desired.

Although the sea scallop spends most of its time resting on the bottom, it escapes starfish and other enemies by "jet-propelled" darting movements.



The *Albatross IV*, commissioned in May 1963, was especially designed for fishery-oceanographic research in the northwestern Atlantic. This 187-foot steel stern trawler is equipped with special fishing gear and modern electronic devices including a closed circuit TV system for observing action of gear and behavior of fish. The ship can accomodate the crew and 16 scientists.



Area of operations of the Bureau of Commercial Fisheries Biological Laboratory, Woods Hole, Mass., in the western North Atlantic Ocean.

SOMETHING ABOUT BCF

The Bureau was first known as the United States Fish Commission and functioned as an independent agency from 1871 to 1903. In 1903, it was placed in the newly established Department of Commerce and Labor and was renamed the Bureau of Fisheries. In 1913, the Department of Labor was separated from Commerce, and the Bureau of Fisheries remained in the Department of Commerce until 1939. At that time the Bureau of Fisheries and the Department of Agriculture's Bureau of Biological Survey were transferred to the Department of the Interior. A year later, on June 30, 1940, the two Bureaus were merged to form the Fish and Wildlife Service. The Fish and Wildlife Act of 1956 created the Bureau of Commercial Fisheries and the Bureau of Sport Fisheries and Wildlife. BCF has six regional offices and one area office; the headquarters office is in Washington, D.C.

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As the Nation's principal conservation agency, the Department of the Interior has basic responsibilities for water, fish, wildlife, mineral, land, park, and recreational resources. Indian and Territorial affairs are other major concerns of America's "Department of Natural Resources."

The Department works to assure the wisest choice in managing all our resources so each will make its full contribution to a better United States—now and in the future.

Washington, D.C.
May 1969

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