



DEPARTMENT OF THE INTERIOR INFORMATION SERVICE

UNITED STATES FISH AND WILDLIFE SERVICE

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AIR BUBBLES BECOME "STONE WALL" IN HERRING GUIDING TESTS

A "stone wall" of air bubbles may become an important tool for the fishing industry, experiments by the Bureau of Commercial Fisheries, Department of the Interior, indicate.

The experiments have been made in the herring fishery around Pleasant Island, Tenants Harbor, Maine. The full value of the unique development cannot be determined until further tests are made.

The present tests concern the use of the airwall to guide herring schools into or away from specified areas. The wall of air bubbles is created by placing a length of perforated plastic hose along the bottom of the sea and supplying air by means of a compressor carried aboard the research vessel. Five hundred feet of plastic hose, weighted, is being used in the current tests.

Trials to date show that a school of herring coming up to the airwall flattens along the wall and refuses to penetrate it. Some of the herring find their way around the end of the barrier and proceed along their way.

Some of the tests were unsuccessful because the herring veered away before coming close to the air bubbles, either frightened by the noise of the compressor or shifting course for some other reason.

Efforts to "herd" herring into a pocket have been successful only to a degree. The fish retreat ahead of the airwall until a certain concentration of numbers is reached and then they break through.

Experiments will continue to determine more accurately the conditions under which the use of the airwall can be of most practical value to the commercial fishing industry and to solve some mechanical problems which have arisen.

More complete tests will be made on directing the course of commercial fish by the air bubble technique before any adaptation of it is tried in fresh water fishing management.

Small planes are used to locate the schools of herring and to direct the laying of the airwall apparatus. School-finding by airplane has been a successful practice in the commercial fishing industry for some years.

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