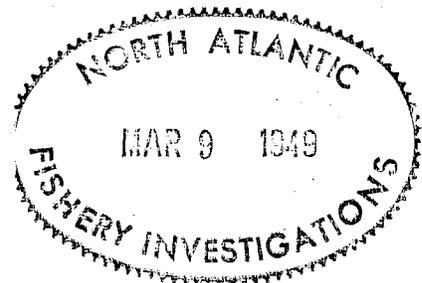


STUDIES ON OFFSHORE POLLUTION  
A Survey of the Sports Fishery of  
the Middle Atlantic Bight

By

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INTRODUCTION

Sports fishing is a major form of recreation throughout the United States. In the vicinity of New York City where millions work, and where most of them must find recreation, the most available fishing is in the ocean between Montauk Point, Long Island, and Cape May, New Jersey. Oceanographers commonly refer to this section of the Atlantic Ocean as the Middle Atlantic Bight. In this area, those who try the right place at the proper season can find excellent fishing.

This sports fishery has been the loser in the inevitable conflict between the industries associated with the largest port in the world, and the requirements of fish for clean water. The dumping of waste products at sea, a long-established practice, has become increasingly <sup>prevalent</sup> popular in the New York Harbor area. ~~It furnishes a practical and economical method for the disposal of physical and~~

~~chemical waste products.~~ This practice, begun many years ago ~~without~~ <sup>when</sup> ~~consideration of~~ <sup>was negligible</sup> its effect upon marine life ~~has~~, <sup>has grown steadily and now</sup> in addition to causing major industrial and health problems, <sup>has</sup> forced fish and their fisheries farther and farther from the city. Consequently, when a major source of pollution is moved out to the immediate vicinity of existing fishing grounds, there is cause for alarm.

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*Account*

This cause for alarm was occasioned by dumping operations 13 miles south-southeast of Scotland Lightship, initiated by the National Lead Company of Sayreville, New Jersey, in April 1948. The company had been requested by the State of New Jersey to dispose of their waste product, consisting of a solution of sulphuric acid and ferrous sulphate, in some other manner than the established practice of allowing the solution to enter the Raritan River. Officials of the National Lead Company, in an effort to comply with this request, sought another way to dispose of their waste product.

*According to the company* ¶  
Numerous methods of disposal were investigated. Reclaiming processes were attempted without success. They were either too expensive, or failed to reclaim the sulphuric acid. The possibility of pumping the solution into pits or lagoons adjacent to the plant was abandoned since there was not enough land available to hold the volume; and, it was probable that the waste might ultimately contaminate the underlying water table of the entire area. Since the waste must be gotten rid of--to comply with the request made by the State of New Jersey--there was only one disposal method left, disposal at sea.

¶ See "Background Memorandum on waste disposal from the Sayreville pigment plant" from National Lead Co. Titanium Division, 111 Broadway, New York, N. Y. processed about September 1947.

Many ~~state and federal~~ technical experts were questioned on this proposed method of disposal. <sup>11</sup> They were asked to give their opinions, and to suggest an area to be used as the disposal site. It was generally agreed upon by these experts that the solution of sulphuric acid and ferrous sulphate would not be injurious to marine life due to the buffer action of sea water. The site agreed upon for disposal was a two-mile square area approximately 13 miles from Scotland Lightship, where the average depth of the ocean is in excess of 150 feet. The center of this area, 40° 15' 24" Latitude and 73° 46' 24" Longitude, was suggested because little or no surface fishing and no commercial otter trawling was believed to be carried on in the area.

~~These presumptions were~~  
~~This presumption was~~ immediately assailed by sportsmen's clubs, sports and commercial fishermen, sports writers for daily newspapers and sporting magazines, and a segment of the interested public. They argued that not only would the solution be injurious to marine life and their respective enterprises, but that the area selected as the disposal site was an important sports and commercial fishing center.

~~When asked to present evidence of their arguments, these groups were~~  
~~unable to do so.~~ The National Lead Company, in an effort to <sup>provide</sup> ~~verify~~  
~~facts about~~  
~~or prove otherwise~~ these contentions, donated \$40,000.00 to the National Academy of Sciences for a study of all types of disposal in the Middle Atlantic Bight with special emphasis to be placed on their particular disposal problem.

11 See Dept. of the Interior Press Release April 21, 1946  
 Consultants included: Dr. Columbus O'b. Deilin and Dr. Alfred C. Redfield, Woods Hole Oceanographic Institution; Dr. Harris Robertshaw, Brown University; Dr. A. E. Parr, American Museum of Natural History; Dr. Thurston C. Nelson, Rutgers University; Dr. G. C. Hutchinson, Yale University; and Dr. Ross E. Miggelli, New York Zoological Society.

## Recommendations

Because the 1948 survey did not cover the entire New York and New Jersey sporting fishing season, and aside from the persistent problem of obtaining accurate catch statistics on the sports fishery, there remain three immediate problems which need solution. These are: (1) to determine the fishing intensity in and adjacent to the disposal areas; (2) to provide, if possible, areas which may be used for short-dumping during inclement weather, especially the winter months; and (3) the problem of enlisting and acquiring additional voluntary cooperation on the part of charter and party boat operators to keep records of their fishing activities.

If the degree of conflict between the sports fishing industry and pollutants in the Middle Atlantic is to be reliably determined, then, yearly data on the catches per unit of fishing effort are a necessity. Voluntary cooperation offered by charter and party boat operators during the 1948 season was disappointing. A more elaborate and intensified on-the-spot interview system is planned to supplement the information to be acquired from the distribution of pilot-house logs for the coming season.

To obtain a reliable estimate of the fishing intensity in the Middle Atlantic Bight, it is planned to enlist the aid of a newly-acquired Service airplane. It is tentatively planned to make random flights over the area to count and photograph the number of vessels engaged in the fishery throughout the season. The problem of providing suitable areas for short-dumping will necessarily await the results of hydrographic studies.

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It is hoped that circumstances will permit these suggested continuations of the sports fishery survey of New York and New Jersey in order that the degree of conflict between the fishery and the pollutants, which are being introduced to the Middle Atlantic Bight, may be reliably determined.