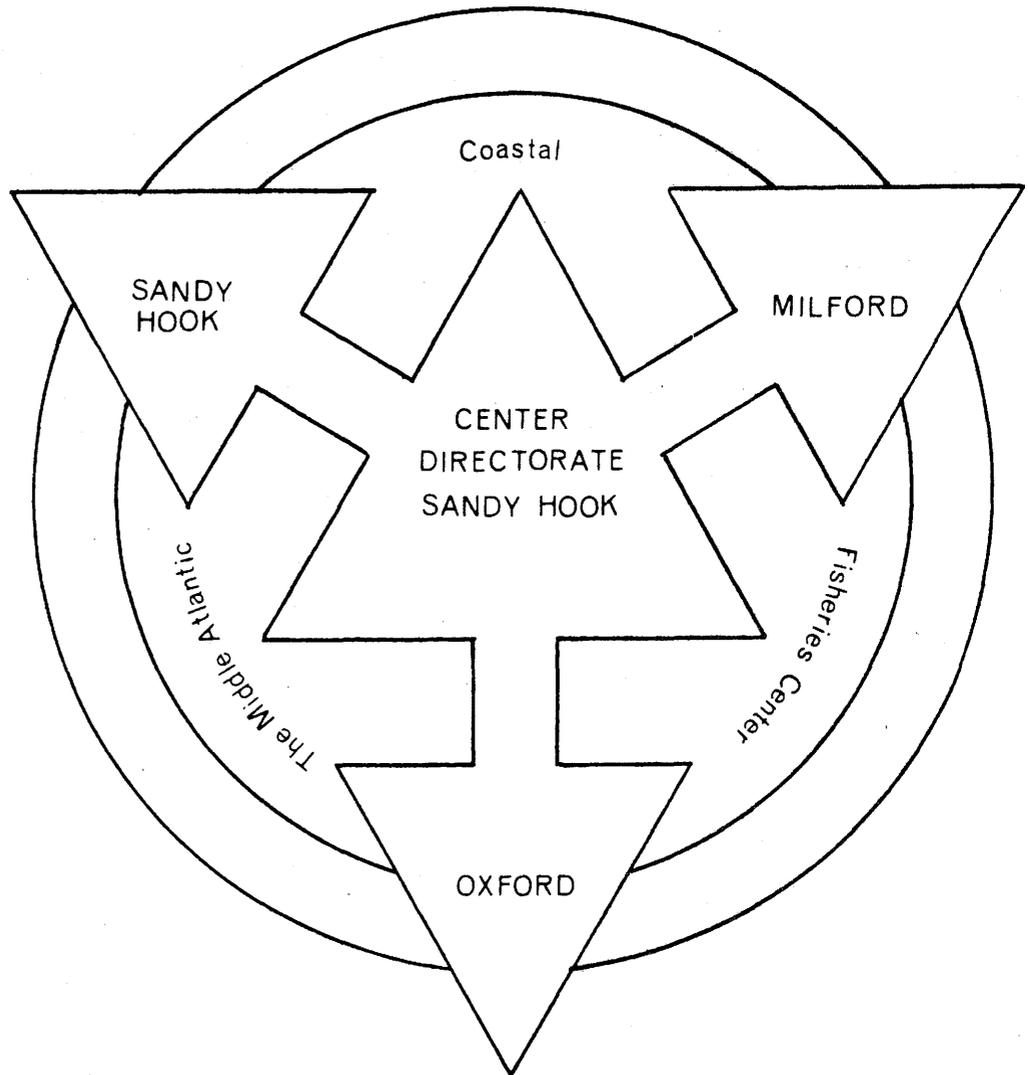


Pre-proposal -- The Effects of Ocean Outfalls on the Prevalence
of Tumors and Other Noninfectious and Infectious
Diseases of Marine Fish and Shellfish



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Region

MIDDLE ATLANTIC COASTAL FISHERIES CENTER



Informal Report No. 102

March, 1976

The Effects of Ocean Outfalls on the Prevalence
of Tumors and Other Noninfectious and Infectious
Diseases of Marine Fish and Shellfish

Objective:

Tumors, hemorrhagic lesions, gross lesions and skeletal abnormalities are found in increasing numbers in ocean outfalls. From an esthetic and public relations point of view as well as to gain knowledge on the affects these conditions have on population structures, we plan to determine the prevalence of tumors and other noninfectious and infectious diseases in marine fish and shellfish inhabiting specific coastal areas receiving domestic and industrial wastes.

Plan of Action:

Groundfish surveys will be conducted in coastal waters representing a spectrum of degraded environments. In conjunction with the surveys, disease prevalence in fish and shellfish will be determined. Vessel acquisition or charters will be necessary.

End Product:

The product of the research will be a documentation of the impact of disease on economically valuable marine fish and shellfish resources. The data acquired will make it possible to estimate the economic losses consequent to the degradation of productive coastal ecosystems.

Benefit:

The value of the research lies in its ability to determine conclusively whether the degradation of coastal environments has profound effect on recruitment, growth, and longevity of marine fish and shellfish.

Schedule:

The project will be conducted during a 4-year period in which the following milestones will occur:

- Year 1 - Collation and analysis of gross lesions observed in field surveys.
- Year 2 - Collation and analysis of microscopic observations.
- Year 3 - Description of pathologies encountered in fish and shellfish and preparation of manuals. Description of new infectious disease entities encountered.
- Year 4 - Submission of final report and preparation of papers to be published.

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Disease of Marine Fish and Shellfish

	<u>1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5th Year</u>
Personal Service	48	50	58	62	-
Contracts	30	30	31	32	-
Supplies	15	15	15	15	-
Equipment	20	20	20	20	-
Other	10	10	10	10	-
Travel	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	-
	128	130	140	145	

Vessel construction or charters or purchase - \$250.0K

1st Year	3 People	\$128.0K
2nd Year	4 People	\$130.0K
3rd Year	4 People	\$140.0K
4th Year	4 People	\$145.0K
5th Year	-	-