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# newsletter

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## society for invertebrate pathology

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### THE OXFORD LABORATORY

A CENTER FOR MARINE AND ESTUARINE INVERTEBRATE PATHOLOGY

During the middle 1950's, "Delaware Bay" or "MSX" disease moved in an unrelenting progression from the decimated oyster bars of Delaware Bay into the highly-productive, highly-vulnerable Chesapeake Bay. The U.S. Fish and Wildlife Service became convinced that federal initiative and close cooperation with state agencies were essential to solve the enigma of this costly epizootic. Accordingly, in 1958, a small U.S. Bureau of Commercial Fisheries laboratory in Annapolis, Maryland, headed by Mr. James B. Engle and engaged primarily in oyster ecology and population dynamics, was directed to undertake a mission-oriented research program covering all aspects of "MSX" and related oyster problems.

An 11-acre site was acquired at Oxford, Maryland, on the Tred Avon River, a tidal estuary of mid-Chesapeake Bay and a modern laboratory complex was constructed, including 13,000 square feet of laboratory space, support facilities, and four ¼-acre experimental ponds. The facility was occupied during the fall of 1960. A multi-disciplinary team of biologists, histologists, parasitologists, and microbiologists was recruited and has been actively engaged ever since in attacking problems of oyster diseases on several fronts. Additionally, programs relating to the general biology and recruitment of both oysters and sea clams have been actively pursued.

Concurrent with mitigation of the "MSX" epizootic and a broadened staff expertise, research was extended to include diseases of Crustacea, fin fishes, and to international surveys related to the import of exotic oyster species. Ultrastructural and virological capabilities were enhanced by the acquisition of a Zeiss 9S electron microscope, with complete preparatory and photographic facilities.

An early decision to support library facilities to the maximum feasible extent has remained in effect and the library now receives about 200 serial publications and includes nearly 7,000 bound volumes.

In 1970 the Bureau of Commercial Fisheries was removed from the Department of the Interior to metamorphose in the U.S. Department of Commerce as the National Marine Fisheries Service, one of the line components of the newly-established National Oceanic and Atmospheric Administration (NOAA). Under NMFS the Oxford Laboratory has been administratively merged with other former Fish and Wildlife Labs to form the Middle Atlantic Coastal



*The Oxford Laboratory with one of the four 1/4-acre ponds in the foreground*

Fisheries Center, with Dr. Carl J. Sindermann as Center Director and Dr. Aaron Rosenfield as Officer in Charge at Oxford and Director of Pathobiology Investigations.

A sampling of published work resulting from in-house and contract research includes: improved histological staining techniques; numerous reviews of marine and estuarine diseases; landmark papers on Minchinia nelsoni (the etiological agent of Delaware Bay disease) and related protozoa; histochemistry of oyster enzymes; neoplasia in mollusks and fish; bacteriological studies of oysters, clams and blue crabs from Chesapeake and Chincoteague Bays; and parasitological studies of pathogenic and saprophytic amoebae from these bays and the New York Bight. Recent electron photo-micrographic studies have supplied evidence that viruses may be a significant factor in marine and estuarine disease.

The laboratory has established a policy of cooperation with state-supported and privately-endowed universities, especially from New York to Virginia, and in continuation of this policy enlarged on-site facilities are being provided for short-term academic use.

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