The Basic Ecology-Pollution Research Department utilizes constant temperature rooms, a well-equipped chemistry laboratory, salt-water laboratory, radiobiology laboratory, several small laboratories and offices, research vessels and outboard skiffs.

**AVAILABLE RESEARCH EQUIPMENT**

- Non-metallic Sea-water System
- Beckman DU Spectrophotometer, UV and Flame Attachments
- Colorimeters
- Single-pan Analytical Balance
- Recording Pyrheliometer
- Kjeldahl Units (Including Micro)
- Ro-Tap Shaker and Sediment Analysis Facilities
- Warburg Respirometer
- Microscopes and Related Optical Equipment
- Geiger and Proportional Detectors and Scalers
- Gamma Spectrometer System (3x3 Well Crystal)

**Research Vessels**

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R/V OBSERVER
27' Sea Skiff

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R/V PATHFINDER
55' Ocean Vessel

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R/V LANGLEY
80' Floating Laboratory and
4 Outboard Skiffs
Current Activities

The Basic Ecology-Pollution Research Department conducts investigations on the responses of marine organisms to natural and man-made changes in the environment.

The Basic Ecology unit studies the primary productivity of planktonic and sessile communities. The organisms that are involved in the primary energy conversion form the base of the food-chain involving all trophic levels of the environment.

The Benthos unit is investigating the taxonomic and ecological characteristics of the estuarine and bay invertebrate bottom animals. These forms are sedentary in nature and must be able to survive environmental tensions or be eliminated from the community. This characteristic is of great value in "pre and post" contamination studies.

Investigations of the relative tolerance of marine organisms to man-made contaminants are conducted under continuous flow and standing water conditions. The Microbiology-Pathology Department aids in the detection of chronic effects of contaminants by making histological preparations of critical organs.

The Radiobiology unit is currently investigating (under an A.E.C. contract) the "biodeposition" rates of marine filter-feeding organisms. The application of isotope technics to marine research is a relatively new field. Its utilization within the department and at the Institute will rapidly expand.

Future Plans

A new building is planned which will provide additional laboratory space and facilities for the Basic Ecology-Pollution Research Department and the cognate departments. Additional information is urgently needed concerning the chemical composition, biochemistry, physiology and ecology of marine organisms. The demand for "multiple use" of inshore marine waters is increasing. The solution to many current and future problems can only be gained from sound basic and applied research.

Courses Offered*

Oceanography and Limnology  Pollution Biology
General Marine Ecology  Population Dynamics
Biometry  Radiobiology
Ichthyology  Marine Microbiology
Biology of Selected Marine Organisms
Embryology and Anatomy of Marine Invertebrates
Physiology of Marine Organisms

* Part of the regular graduate curriculum of the School of Marine Science of the Colleges of William and Mary and the Institute.