*These abstracts from the Environmental Section were received too late to be included in the Proceedings issue of the Journal.*

THE DISTRIBUTION OF SEA TURTLES ON SAN SALVADOR, BAHAMAS. Ryan R. Cilsick, Dept. of Biology, Lynchburg College, Lynchburg, VA, 24501. Study of the number of species of sea turtles found around the island, and research conducted on population changes in recent years. In this paper information was presented on identification and habits of the Green Sea Turtle, Loggerhead, and Hawksbill Sea Turtle. Furthermore, in the paper the turtle farm being constructed is discussed.

Distribution of the Bluehead Wrasse, Thalassoma bifasciatum: A Comparison Between Fernandez and French Bay, San Salvador, Bahamas, by Chad R. Coley, Lynchburg College, Lynchburg, Va. 24501. The Bluehead Wrasse is a small, six inch, cigar-shaped fish which uses its caudal and pectoral fins for locomotion. Fernandez Bay lies on the western Caribbean side of the island, while French Bay lies on the south end of the island where the Caribbean meets the Atlantic Ocean on the east side. Fernandez Bay holds the greatest number of wrasses concentrated along forereef areas. These areas are shallow, and the bottom is a calcium carbonate base rock which has many crevices and holes in which the wrasses live and hide. French Bay has less wrasses, and they are also concentrated in the shallow forereef areas. Fewer wrasses are located here due to the rough , murky waters. The Bluehead was found to respond to environmental changes such as temperature and water clarity. The wrasses were observed to be most active in the early afternoon when the sun and water temperature were increased and the water was clear.

THE PRACTICE OF CLEARCUTTING AS SURVEYED ON SEVEN TRACTS OF LAND IN BEDFORD AND NELSON COUNTIES, VIRGINIA.Christine R. Fisher, Department of Biology, Lynchburg College, Lynchburg, Virginia, 24501. Controversy surrounding the practice of clearcutting prompted a survey to determine the effects of such a cut. Tracts of land examined were numbered one through seven and were clear-cut, respectively, 3, 12, 14-15, 20, 25-30, 30-40, and 45 years ago. All cuts had been left to progress naturally. Two methods of survey used were the mill-acre or circular plot method and the basal area method. The millacre method was used in more recently cut areas where most of the growth was in stems less than 3 inches in diameter and, particularly, seedlings. The basal area method was used in older stands with larger trees and less dense underbrush where the mill-acre method would have yielded few species. All tree regrowth was noted with respect to size and species. Research and fieldwork showed some pros and cons of the issue as well as variables affecting regrowth. Reasons for the decision to clearcut, as opposed to other methods of cutting, is an important consideration. A tract of woodland having been clearcut does not come back exactly as it was prior to the cut but it is possible to affect what happens and to reasonably predict the eventual outcome.

BIOGEOCHEMICAL TRANSFORMATIONS OCCURING AT THE SEAGRASS RHIZOPLANE. Garriet W. Smith, Dept. of Biology, University of SC at Aiken, Aiken, SC 29801. The seagrass rhizoplane is a unique environment for the establishment and growth of microorganisms. The rhizoplane microflora appear to be somewhat specific for seagrass species and differ from the outer rhizosphere microflora. Similarly, metabolic activities are partitioned among the outer rhizosphere, rhizoplane and, in some cases, the endorhizosphere. Phosphorus solubilization, recycling of nitrogenous compounds, and nitrification rates are highest at the rhizoplane. Nitrogen fixation rates and the oxidation of inorganic compounds are also greatest at the rhizoplane while microbial chemical reductions occur primarily in the outer rhizosphere. Data indicate that two distinct populations exist that play different roles in cycling and transforming both organic and inorganic compounds. These activities appear to have a direct effect on the nutritional status of the seagrasses.

LIFE CYCLE OF THE BLUE CRAB Callinectes sapidus. Terry G. Spence B.S.,D.D.S* Box 819, Exmore, Va.23350. Video tape documentary of the larval stages and megalop of Callinectes sapidus, including mating and embryonic stages. The Blue Crab will hatch as pre-zoa and will undergo eight zoeal stages in thirty to forty days becoming megalopa, which will then molt to the first juvenile stage. This video tape demonstrates each stage of the larval development and shows ecdysis of the megaloo to the first juvenile stage. The first section of this tape deals with the commercialization, harvesting and packing of the Blue Crabs.

SEAGRASSES, AN EARLY WARNING SYSTEM FOR COASTAL ECOLOGY. Teresa J. Winston, Dept. of Biol., Lynchburg College, Lynchburg, VA. 24501. Seagrasses were sampled during December, 1989, at 4 of 11 sites around San Salvador Island, Bahamas. This work is in addition to and in conjunction with four years of research conducted by Dr. Garriet Smith, Univ. of South Carolina, Aiken, SC. Measurements of canopy cover, frequency, standing crop, leaf density, and biomass were determined along a meter length transect for each seagrass species at the 4 locales. Data collected from these measurements, analyzed and conducted periodically, can provide the shoreline people of San Salvador with the ability to predict the "seagrass stabilizing factor" on current velocity, sediment movement, and marine productivity in reference to their future prosperity.