

PROGRAM STATEMENTOF THESUBCOMMITTEE ON PRODUCTIVITY OF MARINE COMMUNITIES

INTRODUCTION

The marine program of the International Biological Program has among its objectives the support of studies which will improve our understanding of the ecosystem as a whole, and provide an evaluation of its responses to modifications of the environment. Because of man's increasing interaction with his environment, it is urgent that marine biologists undertake, on a global scale, studies which will produce a clear definition of existing conditions, and an understanding of the mechanisms and processes which control the distribution, survival and development of natural populations.

The rapidly increasing human population and the great technological developments of this century have modified the natural environment in many ways. One of the most injurious of man's activities is the introduction of pollutants into the air and water. In the marine environment man's influence has been greatest in the estuaries and the near-shore coastal waters. Even far from land, however, such pollutants as fallout, radioisotopes, lead and the organic residues of pesticides and detergents have been detected. Increasing pollution is a byproduct of industrial and municipal progress and is perhaps unavoidable in our affluent society. It is necessary to dispose of wastes; but, as practiced today, waste disposal has depleted many natural populations and destroyed the recreational potential of waterways which a few years ago were among the most beautiful in the world. Unfortunately, the marine biologist is unable to predict the specific effects of proposed modifications or developments. There is urgent need to develop this ability.

Another important reason for seeking a better understanding of the marine environment is the growing need to exploit more effectively the protein resources of the sea. There are many questions to be answered: Can local stocks of food organisms be maintained while industrial and commercial activities in