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# PREFACE

The present concern about the rate of fossil fuel consumption and dependency upon imported oil to supply current U.S. demands has resulted in a greater focus of interest by both the government and oil companies on the U.S. continental shelf for increased domestic production. The 1969 National Environmental Policy Act identifies the U.S. Department of the Interior as the agency responsible for protecting the marine environment of the continental shelf during periods of exploration and exploitation of natural resources. To obtain information upon which to base decisions concerning the orderly development of these resources while also striving to protect the environment, the Bureau of Land Management (BLM), an agency of the Department of the Interior, established a marine environmental studies program for the outer continental shelf.

This book presents the results of three years of field studies and data collection on the south Texas outer continental shelf in one of the BLM programs, integrating the information obtained into a statement of the ecosystem characteristics of this shelf area. The intent of the contributors is to provide initial information environmental managers need to make sound decisions concerning natural resource exploitation in continental shelf waters. Besides a general ecosystem description, this book presents those environmental relationships that exist and those specific environmental characteristics (variables) that are most important for predicting, assessing, and managing impacts on the south Texas outer continental shelf ecosystem.

On 3 June 1979, while this book was in preparation, a well blowout occurred at the IXTOC I drilling site in the Bay of Campeche off the Mexican coast in the southwestern Gulf of Mexico. The events that

followed this major disturbance to the marine environment of the Gulf, as massive oil slicks entered U.S. waters, emphasized the value of this study program in establishing base line conditions and ecosystem characteristics. Federal agencies associated with the national oil spill response team that monitored the IXTOC I spill and developed a damage assessment research plan were able to use data from this study to identify critical components and important variables of the shelf environment that could be used to detect ecosystem change from the spill impact. The editors only hope that the reasons for conducting the south Texas outer continental shelf research program will not be forgotten. Now that the opportunity exists to evaluate the actual impact of a major perturbation of natural resource exploitation, decision makers need to take full advantage of the extensive data base available to fill numerous information gaps so that future decisions involving any shelf environment and resource exploitation can be made without a feeling of apprehension and uncertainty.

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