

COOPERATIVE NATIONAL PARKS RESOURCES STUDIES UNIT

DEPARTMENT OF BOTANY

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TECHNICAL REPORT #10

HALAPĒ MARINE SURVEY

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The National Park Service and the University of Hawaii signed the memorandum of agreement establishing this Cooperative National Park Resources Studies Unit on March 16, 1973. The unit provides a multidisciplinary approach to studies on the biological resources in the National Parks in Hawaii, that is, Hawaii Volcanoes National Park, Haleakala National Park, City of Refuge National Historical Park and Puukohola National Historic Site. Through the Unit Director, projects are undertaken in areas identified by park management. These studies provide information that will facilitate the development and implementation of resource management programs. The involvement of University faculty and students in the resource management of the National Parks in Hawaii lends to a greater awareness of the problems and needs of the Service. At the same time research not directly or immediately applicable to management is also encouraged through the Unit.

A SURVEY OF THE MARINE ORGANISMS AT HALAPĒ,
HAWAII VOLCANOES NATIONAL PARK

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PREFACE

This report of the survey of the marine resources at Halapē was conducted July 17-23, 1975. Since that time the area has been severely disturbed by natural phenomena. The November 29, 1975 earthquake, (Richter Scale magnitude 8.4), generated a small tsunami which claimed the lives of two people and also severely disturbed the marine flora and fauna at Halapē. Many animals and some plant material were either crushed or left stranded on land. However, this destruction was minor compared with the gross change in the habitat brought about by the land subsidence during the earthquake and in the following weeks. The land in the Halapē region has sunk approximately eleven feet. The benthic environment in the area will not recover for some years as the newly submerged land surface is colonized and the previously submerged regions adapt and change in response to their greater depth. Figures 1 and 2 illustrate the conditions at Halapē before and after the earthquake. There was no volcanic activity in the Halapē area.

Though this report presents information about an area whose features have been radically altered by nature, the results contained herein are still of considerable significance for resource management purposes. The report is the first comprehensive qualitative inventory of marine organisms along the coastline of Hawaii Volcanoes National Park. As such it will form the basis for future resource inventory studies in the area and all consequent ecological studies that may be necessary for resource management. Some work on the colonization of the newly submerged coastline is already being sponsored by the CPSU UH.

