

Primary Production of a Seagrass Bed on Kavaratti Atoll (Laccadives)

by

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INTRODUCTION

A considerable knowledge of marine phytoplankton productivity, in contrast with remarkably few investigations on the rate of production of naturally growing benthic plant communities in salt water, such as the vascular plants, prompted the present authors to report the primary production of a seagrass bed from the tropical zone. This study was considered important in two ways: (1) to determine the rate of production of a luxuriant macrophyte community growing in tropical waters on an atoll, and (2) to get some idea of the functions of this grass bed in the atoll community.

The grass bed is found in the lagoon on Kavaratti, an atoll of the Laccadive Archipelago, located along Lat. 10°33'N. and Long. 72°36'E. The lagoon is approximately 4500 m long, 1200 m wide, and has an average depth of 2 m. It is oriented in a north-south direction, with an island on the east and a coral reef, about 300 m wide, on the west (Fig. 1). A narrow break in the reef, about 60 m wide, forms an entrance to the lagoon at the north-west point. The grass bed consists mainly of turtle grass, *Thalassia hemprichii* (EHR.) ASCHERS (Hydrocharitaceae) and manatee grass, *Cymodocea isoetifolia* ASCHERS & GRAEB (Potamogetonaceae). The two species grow together along the beach-slope over a substratum of coarse white sand with coral rocks and debris. The growth of the seagrasses starts

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