

INTRODUCTION

The Great Barrier Reef Marine Park Authority is involved in preparing management strategies for the whole Shoalwater Bay area, as well as zoning plans for the Byfield Coast area, immediately east of Shoalwater Bay. They have found a lack of information on the state of the fringing reefs that aerial photographs suggest are present around many of the shoals and islands in this area.

T.J. Done has recently suggested various parameters that may be useful for managers in evaluating coral reefs in a paper in *Coral Reefs* entitled, 'Ecological criteria for evaluating coral reefs and their implications for managers and researchers' (Done 1995). Done points out that to provide data for his suggested evaluations researchers and assessors need to look beyond a simple quantitative survey of percentage cover, to get a valuation of each site based on coral composition and ages, and an assessment of recoverability, as well as on total cover. His value assessments focused on estimates of biodiversity value and bioconstruction value to give some quantitative guide for managers. The Great Barrier Reef Marine Park Authority would like to test some of the ideas offered in this paper in making an assessment of the resources of the Shoalwater Bay fringing reefs.

The Great Barrier Reef Marine Park Authority provided a list of 24 possible fringing reefs within the Shoalwater Bay-Byfield Coast region for which they required biological information. Within the time/budget limitations available we attempted to get as much information as possible from each of these reefs, and collected this information in such a way as to make Done-type evaluations possible. In practice we found that some of Done's ideas were not appropriate for our purpose: to put a relative value on the different Shoalwater Bay reefs, and we also used a number of other attributes to rank these reefs. This report presents the results from these surveys and attempts to put relative values on the reefs visited so that managers have an indication of which reefs it would be most appropriate to protect.