

GREAT BARRIER REEF MARINE PARK AUTHORITY WORKSHOP

'REEF FISH ASSESSMENT AND MONITORING'

Introduction to Workshop Objectives

The Great Barrier Reef Region contains some 2,000 species of fishes. Most of these are not unique to the region but represent approximately two-thirds of the entire fish fauna of the Indo-Pacific.

The Authority considers that the single most important impact in the Great Barrier Reef Region is the effect of fishing (both recreational and commercial) and that one of the most important recreational activities for reef visitors is 'fish watching'. In view of the historical evidence in other areas of the Indo-Pacific, the Authority is concerned with managing the Great Barrier Reef's resources and minimising the impact of man's activities (as outlined in detail by Dr. Baker's introductory speech Appendix I).

The Authority invited a group of thirteen leading reef biologists to address the questions most pertinent to management of reef fish resources, namely:

- . Is it possible to devise a method to adequately monitor stocks of fished reef-fish species, and how?
- . Do all reefs have similar fish assemblages, and if not, how do we determine the differences; which of these assemblages warrants special protection?
- . Does the Authority at present have all the necessary information for adequate management of the fish resources in the Capricornia area of the Great Barrier Reef, and if not, what additional information is necessary; how may it be obtained?

The working party successfully developed and tested:

- . A technique that may be used to gather baseline data to assess the current populations of 'fished' species for zoning purposes and subsequent monitoring of the effect of management regulations.
- . A technique to discriminate the differences in coral reef fish assemblages around one reef and between different reef systems as baseline data for zoning, management and monitoring.

The working party, as requested, also devised a sampling strategy for Capricornia which was considered the minimum biological input on reef fish populations necessary for rational management planning.