

PROJECT REEF-ED & REEF ACTIVITIES MANUAL

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PROJECT REEF-ED

"Project Reef-Ed" was produced by the Authority to encourage study of the Reef and help schools to organise student visits to the reef.

The project provides teachers with a wide range of resource materials and programs from which they can select, according to their own needs. Suggestions are also made as to how various kinds of programs might be constructed.

The Reef-Ed material is aimed at students in the 15 to 17 year old age bracket which means it could be easily adapted to the general market i.e. tourist.

The project has taken four years to develop and is considered to be one of the most comprehensive marine education programs yet developed. As you can see it occupies these eight rather large volumes.

Volume A - Introduces Reef Education and suggests a rationale for education and in particular reef fieldwork. It also discusses the learning experiences --- for a Reef Education program ---  
Encountering, Enquiring, Evaluating, and Expressing.

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Volume B - Covers the logistics of reef field trips  
Sites and travel arrangements  
Permit procedures  
General considerations relating to camping, accommodation and catering  
Safety, health and First-Aid  
Useful equipment  
Guidelines for aquatic activities - reef walking, snorkelling and boating.

Volume C - Outlines a number of student activities in a form that allows them to be duplicated for immediate use. The activities are considered in two main groups: The Natural World; and The Human Dimension.

Volume D - Covers background information on the Reef as a whole. Biological, Geological, Geomorphological and Oceanographic data is given and various aspects of the relationship between people and the reef are treated.

## Companion Guides

1. Heron Island and Reef
2. Northwest Island and Reef
3. Lady Elliott Island and Reef
4. Lady Musgrave Island and Reef
5. Green Island, and Reef
6. Reef Trips - Cairns to Port Douglas
7. Reef Trips - Townsville to Ingham
8. Reef Trips - Whitsunday Area

The companion guides provide more detailed information on the specific area as titled. Only the first four guides have been drafted to date.

The current status of "Project Reef Ed" is that the draft has been produced and is currently being reviewed. We are currently negotiating with the printers. However because of the complex nature of the task this is not proving easy or inexpensive (estimations are around \$100,000). All donations will be gratefully accepted.

## REEF ACTIVITIES MANUAL

The Reef Activities Manual was the result of a workshop held on Green Island in November 1982.

The purpose of the manual is to be an introductory handbook for those people conducting interpretive activities which focus on the Great Barrier Reef. It is designed to be of use to tourist operators as a training and working aid for their activities staff, so that activities can be provided which are enjoyable and recreational for tourists and which contribute to the conservation of the Great Barrier Reef.

One of the guiding themes used in the construction of the activities was the kind of emotional experience available during that activity. This approach is consistent with the point of view which argues that tourism is centrally concerned with providing a rich and diverse range of experiences to people; in short that the product sold by the tourist industry is a set of emotional experiences. The activities in the manual are designed to stimulate positive emotional experiences.

The main contents of the manual are divided into three sections: Reef Activities, Reef Information and Island Activities.

1. "Reef Activities", includes:

- Introduction to coral reefs
- Glass bottom boats
- Reef walking
- Beginning snorkelling
- Advanced snorkelling
- Scuba diving
- and a number of other activities.

2. "Reef Information" covers some aspects of the Biology, Geomorphology, Geology and Oceanography of Reefs.

3. "Island Activities" include:

Beach walk  
Green trail quiz  
Examination of a coral cay  
Bird identikit etc.

Currently the Reef Activities Manual is out of print and is in the process of being reviewed and updated. It is also intended to produce a document that is Reef-wide in its application. The current manual needs updating to include additional reef activities such as fishing, use of semi-submersibles, high speed catamarans, reef walking, and snorkelling trails.

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## REPORT FROM WORKING GROUPS

Four working groups were formed with a cross-section of interest areas in each group. Each group was asked the same set of questions:

1. What are the needs of tourist operators re fringing reefs?
2. What are needs for research and management?
3. Recommendations of the workshop?

The following is a **brief report** of each working group. The recommendations are summarized in the Executive Summary.

GROUP 1 - Chairman - Clive Wilkinson,  
Scribe - Leon Zann

Needs of tourist operators.

**Why** the workshop has not been attractive to tourist operators:

1. Location;
2. Timing;
3. Communication problems;
4. Programme did not appear interesting;
5. Operators may feel their use of outer reefs is more significant.

Research and management

1. Effects of siltation on coral species:  
dumping silt on a batch of corals;  
evidence of different species reactions are anecdotal.
2. Long term work on specific sites - as by Done & Collins
3. Temporal variation
4. What sort of changes are "normal" and possible
5. Understand the nature of people's experiences,
6. Understand expectations

### Recommendations

1. Encourage resorts to engage scientifically trained people
2. Demonstrate that this may generate income;
3. GBRMPA consider providing an attractive training programme to operators;
4. Encourage better liaison between resort and research stations, on Orpheus, Lizard and Heron, that will result, in other resorts doing the same.

GROUP 2 - Chairman - Peter Hunnam  
          'Scribe - Ian Dutton

Needs of tourist operators

1. Fringing reefs have potential for use - how can their best use be facilitated?
  - Assist operators with promotion (Expert facilitation)
  - Instill sense of husbandry and responsibility
  - Enhance awareness and value of fringing reefs
  - Encourage developers to assess alternatives to maximise opportunities (e.g. structural vs non-structural approaches)

Research and management

1. Research Needs

- . Definition of fringing reefs - i.e. an incipient fringing reef vs a community on a reef vs fringing reef
- . What is the distribution/composition of fringing reefs in the GBR Region? More surveys are needed e.g. Cumberland Group.
- . What is, present "health" of fringing reefs - need for baseline data especially from hot spots.
- . An improved basis for integrating remote sensing and ground truth techniques.
- . To define the value of fringing reefs (e.g. fishing, recreation, coastal stabilisation).
- . How do indicator species work - do processes differ between reefs. Should they be treated differently?
- . A better understanding of response to disturbance - modelling.
- . Effect of siltation/run off - freshwater, herbicides.
- . Comparison with S.E. Asian reefs.

2. Management

- . A need for better strategic control of tourism development. Zoning is not allocated according to "best possible use" of fringing reefs.
- . What are limits of acceptable change.
- . Strategic planning at sub-zoning level.

Recommendation

1. That there be no more workshops until more is known.

GROUP 3 - Chairman - Wendy Craik  
Scribe - Kevin Parnell

**Needs of tourist operators**

1. Tourist resorts need resources to be **made available** to :
  - assess the value of fringing reefs;
  - develop activities/education **packages and** training courses.
2. Tourist operators need a clearing house for management and scientific advice

**Recommendations**

1. Conduct further' workshops which **are** taken to **operators** and are precisely targetted.
2. Workshops to include:
  - environmental **impact** statements
  - monitoring systems
  - explanation of legislation.

GROUP 4 Chairman - David Steen  
Scribe - Zena Dinesen

**Needs of tourist operators**

- . To take care of these reefs as 'a useful asset.
  - . To use them to the fullest advantage.
  - . To make resort visitors aware of fringing reefs using interpretation-and guides.
  - . To consider visitors' expectations and prepare them for a fringing reef experience.

**Needs for research and management**

- . To determine **what levels** of stress (i.e. from sewage and siltation) can be tolerated by fringing reefs.
- . To gain a better understanding of usage patterns..
- . To acquire more basic knowledge of fringing reefs.
- . To require more information on shell collecting and on natural and collected populations of collected **mollusc** species.
- . To acquire more information about the substrates upon which fringing reefs grow.
- . To determine what systems can be used to effectively manage easily accessible reef areas.
- . To determine whether the public or **tourist operators** can be effectively used as **reef "guardians"**.

## Recommendations

- That steps be taken towards fulfilling all of the **above** requirements/acquiring all of the above information.
- That the essentials of this Workshop be repeated in locations and at times more convenient for tourist operators.

Donald W. Kinsey, Conference Chairman:

Following on the report of the last working group, it seems worthwhile to make the comment that there have been quite a number of studies in various parts of the world to consider the direct effects of sediment load on **corals and coral reefs**. Specific experiments certainly were done in both St. Croix and Malaysia and I seem to recall that there have been several others. A literature search on this subject would be well worthwhile.'