



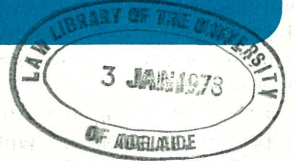
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Reeflections

Newsletter of the Great Barrier Reef Marine Park Authority,
P.O. Box 5575, M.S.O., Townsville, Queensland, 4810.

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People and the Reef Dr DW Connell

Today we live in a crowded world. The burgeoning human population of the earth is making increasing demands on the limited resources that are available. Even in Australia we have similar problems to those of more populous countries overseas, since the people of Australia are concentrated into the cities and other limited parts of this continent. Almost every day we are confronted in the media with the problems of excessive demand on limited world resources. In this situation the management of resources has become one of the prime tasks for governments everywhere and is increasingly a source of international conflict. Various governments throughout the world are turning to the community, in other words the consumers themselves, for their opinions on how limited resources should be managed and used. These opinions are then taken into account in the formulation of plans and policies for resource management.

Resources take many forms. Often these are thought of as coal, iron, minerals of various kinds and so on, but we are becoming increasingly aware that the earth's natural resources of open space, plants and animals, clean water and air must also be taken into account. The Great Barrier Reef is one of the earth's most valuable marine resources. Its prime value to Australia and the world lies in its use as a recreation and scientific research area. The mobility of the earth's populations makes it clear that the Great Barrier Reef will become one of this planet's most important recreational areas. At the same time, the Reef is a very delicately balanced system and great care will need to be taken in the management of its many and diverse life forms.

In today's social climate the public expects that an area, such as the Great Barrier Reef, will be managed so that its value as a resource will continue to exist into the indefinite future. Government is expected to take on this difficult and demanding task. In this role, the Commonwealth and Queensland Governments are expected to take into account all interests and manage the Reef in such a way that "damaging uses" are controlled. This task cannot be done by government officials and scientific experts alone. It is Continued page 2



Photograph: A. Green

The Great Barrier Reef Marine Park

What is GBRMPA? The Great Barrier Reef Marine Park Authority (GBRMPA) was established in 1976, in close co-operation with the Queensland Government. The Authority is set up under the '*Great Barrier Reef Marine Park Act*', which was passed by the Commonwealth Parliament in response to widespread concern that uncontrolled uses were threatening one of Australia's great natural treasures.

In July 1976, Dr D.F. McMichael, Commonwealth Director of Environment, was appointed as Acting Chairman. There are two part-time members:— Sir Charles Barton, formerly Co-ordinator-General for Queensland (nominated by the Queensland Government); and Dr J.T.

Baker, Director, Roche Research Institute of Marine Pharmacology (nominated by the Commonwealth Government).

The Act also established the Great Barrier Reef Consultative Committee. The functions of the Committee are to provide the Minister for Environment, Housing and Community Development and the Authority with advice in relation to matters concerning the Marine Park and the operation of the Act. The nineteen members, listed on page 3, have been chosen from a large range of organisations and government departments in order to channel and co-ordinate the broad range of community interests, knowledge and experience which they represent. Continued page 3

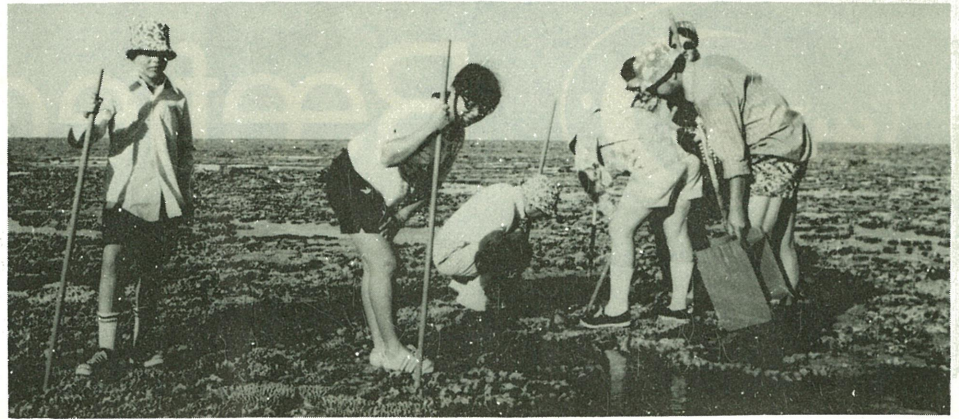
Current Research and Investigations

1. A Review of Selected Recreational and Professional Activities on the Great Barrier Reef, Alison Domm.

This study which has been completed recently, involved a comprehensive questionnaire being sent to a wide range of user-groups of the Great Barrier Reef. More than 150 questionnaires were completed by various clubs representing the interests of divers, line fishermen, shell collectors, boating and sailing enthusiasts, conservationists, marine collectors, photographers, charter boat operators and scientists. The Authority appreciates the time and effort given by the respondents in completing the questionnaire and meeting with Ms Domm when she visited coastal centres earlier this year. The information obtained will enable the interests of the public to be more effectively accommodated in the planning of the Marine Park and thereby greatly assist the Authority in carrying out its statutory responsibilities. A report of the results of the study will be published in the next issue of "Reeflections".

2. A Bibliography of the Great Barrier Reef, Dr E. Frankel, University of Sydney.

This study involves the identification and indexing of more than 5,000 references on the Great Barrier Reef. The bibliography seeks to bring together most of the published work in a variety of fields up to June 1977. The bibliography will contain listings of material in the physical and biological scientific fields as well as popular works which include novels and films of the Great Barrier



Photograph: N. Coleman

Reef. It is hoped to publish the bibliography by the end of this year.

3. Assistance for Research and Investigations at the three research stations on the Reef.

The Authority has provided financial support for some specific research projects being undertaken at the Lizard Island, One Tree Island and Heron Island Research Stations.

At Lizard Island research is being conducted on algae, bacteria and plankton associated with coral reefs. In addition, some studies on fish reproduction and the early larval stages of corals are being assisted. At Heron Island the funds will help in studies on other reef organisms such as shrimps and molluscs and also some geological survey work. At One Tree Island assistance has been provided for a survey of the species composition of reef fish populations.

The knowledge gained from these research projects will assist the Authority in the planning of the Marine Park.

4. Public Participation, MSJ Keys Young, Planners.

Until late October Ms Susan Young will be working with the Authority in formulating a co-ordinated program for public involvement in the planning process for the Marine Park. After spending a large part of August in coastal centres along the Reef, she will report on the most effective ways and means of ensuring a two-way communication between the Authority and local residents and Reef users. Her recommendations will also assist the Authority in determining the appropriateness of public meetings, "workshops", leaflets and other publications as points of contact with the wide variety of users who will want to become involved in the planning process.

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important that community opinions and needs must be taken into account in this planning and management task.

The Act of the Commonwealth Parliament establishing the Great Barrier Reef Marine Park Authority and the Consultative Committee requires that, in the setting up of the Marine Park and the development of management plans, there must be community comment and review before such plans and parks come into operation. But, in fact, a much closer contact is required. The Authority needs to understand the views and expectations of the community before proposals are put forward; these can then become part of the planning process. This is one of the reasons for the establishment of the Consultative Committee which is to advise the Authority and the Minister for Environment, Housing and Community Development. It consists of representatives from a wide diversity of private and governmental organisations, having an interest in the Great Barrier Reef.

While the Consultative Committee serves a valuable and useful purpose it is recognised that such a committee will provide only a general indication of community and governmental interests as a whole. The Authority is actively investi-

gating ways of establishing other contacts throughout the community. Although this might appear simple it is, in fact, a very difficult and complex task. It is recognised that much needs to be done; for example, as times goes by the Authority expects to initiate the preparation of films and special publications and other means of informing people of the activities being undertaken. Of course, this is only a one-way process with information flowing from the Authority to the public. It is most important that a flow be generated from the public back to the Authority so that the Authority is informed of community expectations.

For example, this newsletter is one way in which the community can keep in touch with the activities of the Authority and the Consultative Committee and contribute to discussions on topics of mutual concern.

Some interest groups can be readily identified and links established with them. Marine scientists, conservationists and professional fishermen, for example, are organised into associations and societies that can be contacted and their opinions obtained directly. Other groups, equally important, such as tourists, recreational fishermen and boating

enthusiasts who may visit the Reef periodically are much more diffuse and difficult to contact. It is also often difficult to obtain some consensus of the opinions of local residents. Perhaps public opinion surveys, public meetings and calls for submissions may serve the interests of this wide range of people. The move of the Authority's headquarters to Townsville (see page 3 for details) will facilitate these activities.

The Authority's relationship with the community will continue to be a high priority task and an integral part of its overall management program. The success of the Authority, and thus of the Marine Park, will depend to a very large extent on the effectiveness of the exchange of information and ideas. Therefore, the Authority needs your assistance, as a member of the community, in conducting its program. Only in this way can the Reef be conserved and used to the best advantage for the community as a whole.

Dr Connell is a member of the Great Barrier Reef Consultative Committee and Vice-Chairman and Senior Lecturer at the School of Environmental Studies in the Griffith University, Brisbane. He is President of the Australian Littoral Society and a member of the Australian Conservation Foundation (ACF).

Reef Notes

Office in Townsville. A research and planning unit of the Authority has now been established in Townsville.

From July of this year the unit has been located in a temporary office at Cape Pallarenda, but in October it will move to the new Commonwealth Bank Building in Flinders Street, Townsville. For the present, the remainder of the Authority's staff is located in Canberra, but most staff will move to Townsville, probably during 1978.

Townsville has been chosen because of its central location to the Reef and its good access to the regional centres along the coast. There is also in Townsville a concentration of scientific and research institutions with which the Authority is developing close relationships.

Crown-of-thorns Starfish. Why has there been such a diversity of opinion on the impact of the crown-of-thorns starfish on the Great Barrier Reef? Is it man's interference which has caused the problem or is it a natural phenomenon? Have the effects been disastrous or will the coral destroyed by the starfish regenerate?

These are all important questions which need to be answered and part of the next issue will be directed towards such a discussion.

If you would like to express your views, please send your article (not more than 300 words please) to: The Editor, Reeflections, Great Barrier Reef Marine Park Authority, P.O. Box 5575, M.S.O., Townsville, Qld, 4810.

Publications. Apart from *Reeflections*, the Authority will be publishing, as the need arises, leaflets on particular matters.

At the present time there are two explanatory pamphlets — *The Great Barrier Reef Marine Park* (background information on the legislative and planning process) and the *Great Barrier Reef Marine Park Concept*. If you would like to be placed on the Authority's mailing list please fill in and return the coupon at the right.

Downunder 77. For the first time, Australia has hosted the World Underwater Conference. It was organised by the Australian Underwater Federation and was held from September 10–15 1977, in Brisbane.

Apart from the Scientific Symposium, four other international conferences were held concurrently in the fields of underwater sports medicine, maritime archaeology, artificial reefs and underwater education. Special interest diving excursions took place before the Conference and a special seminar on "Conservation and the Underwater World" was held.

Not only did "Downunder 77" have enormous scientific value but it also represented a chance for an international gathering of divers near one of the world's largest underwater "laboratories".

Copies of the proceedings of each of the conferences are available (at a price) from: Fifth World Underwater Congress, Australian Underwater Federation, P.O. Box 67, St Lucia, Qld. 4067.

Name _____

Address _____

Postcode _____

I wish to receive:

- Reeflections
 Other GBRMPA publications

My principal interests in the Great Barrier Reef are:

- Scientific Fishing Coral
 Recreation Diving Shells
 Conservation Boating
 Commercial Other | please specify
 Educational

Correspondence Column. It is intended that this newsletter (to be published quarterly) will act as a focus for community viewpoints and will become a genuine forum for discussion of the needs and attitudes of people in relation to the Great Barrier Reef.

If you would like to voice your opinions in the Correspondence Column or write a specific article for *Reeflections* please send it to: The Editor, Reeflections, Great Barrier Reef Marine Park Authority, P.O. Box 5575, M.S.O., Townsville, Qld, 4810.

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Consultative Committee Members

Mr J.F.S. Brown, A.O., M.C. (*Chairman*), Queensland Confederation of Industry.

Mr L.F. Backen, Commonwealth Department of National Resources.

Mr J.C. Ballingall, Queensland Commercial Fishermen's State Council.

Dr D.W. Connell, Australian Conservation Foundation.

Mr P.B. Eccles, Commonwealth Department of Transport.

Mr P.L. Ellis, Queensland Co-ordinator-General's Department.

Dr M. Gilmartin, Australian Institute of Marine Science.

Mr E. Hegerl, Queensland Conservation Council.

Mr J.H. Izatt, Queensland Game Fishing Association.

Mr J.P. Killoran, Queensland Department of Aboriginal and Islanders Advancement and Fisheries.

Dr D.F. McMichael, Great Barrier Reef Marine Park Authority.

Dr P. Mather, Great Barrier Reef Committee.

Professor J.D. Ovington, Australian National Parks and Wildlife Service.

Mr A.J. Peel, Queensland Department of Harbours and Marine.

Mr E.A. Purnell-Webb, Commonwealth

Department of Primary Industry.

Dr G.W. Saunders, Queensland National Parks and Wildlife Service.

Professor K. Stark, James Cook University of North Queensland.

Mr J. Wilson, Queensland Government Tourist Bureau.

Mr J.T. Woods, Queensland Department of Mines.

Responsibility of the Authority. The Authority is responsible for making recommendations to the Minister in relation to the care and development of the Marine Park. This means that it makes recommendations as to the areas that should be declared as parts of the Marine Park, and the uses which may be made of them.

After an area has been declared to be part of the Marine Park, the Authority is required to prepare a zoning plan for that area. The prime objective is the conservation of the Great Barrier Reef and the second major objective is to ensure that, consistent with care and protection of the Reef, any "reasonable uses" can be made of the Marine Park.

This means that it may permit such activities as fishing, diving, boating, shell collecting and others related to tourism, shipping etc., in the Marine Park provided

they are not harmful to the Reef.

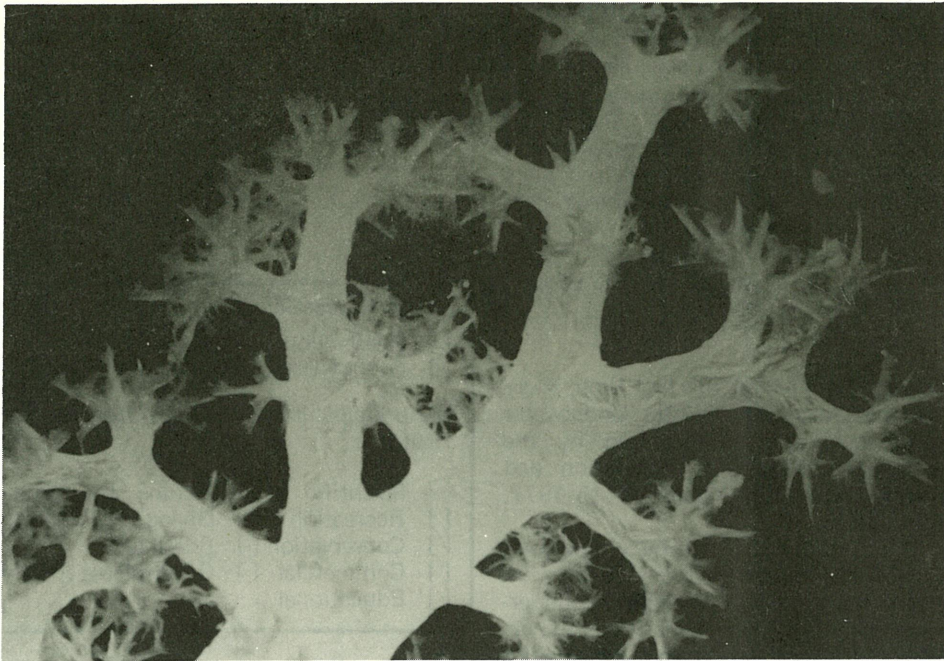
The Act specifically provides that there shall be no mining activities of any kind within areas that have been declared as parts of the Marine Park.

Another of its functions is to carry out research and investigations relevant to the Marine Park, either by itself or in co-operation with other persons or institutions (see article on page 2).

What has been done? The Authority's principal project at present is the preparation of the declaration proposal for an area including the Capricorn and Bunker groups of reefs, and Lady Elliott Island near Gladstone and Bundaberg. In early June, the Authority advertised its intentions to consider this area for declaration as part of the Marine Park and called for public comment, information and suggestions regarding those parts of this area which should be included within the Park. The call for submissions brought a good response from the public, including many very comprehensive replies. All were in favour of the Marine Park concept and, as hoped, some groups took advantage of the opportunity to put forward detailed arguments for the declaration of areas which are especially

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International Symposium on Coral Reefs



Photograph: G. Goeden

Some eight years ago about sixty interested scientists gathered in Mandapam Camp near Madras, India for the First International Symposium on Coral Reefs, which was sponsored by the Marine Biological Association of India. Then in 1973, the increasing interest and involvement in coral reef science resulted in the Great Barrier Reef Committee hosting 300 delegates to the Second Symposium aboard the "Marco Polo", cruising the waters of the Great Barrier Reef.

Now in 1977, the Third International Symposium on Coral Reefs has concluded at Miami, Florida, with more than 400 delegates present at the University of Miami from 22 May to 26 May. Many also participated in pre- or post-symposium scientific tours in the Caribbean or off the Florida Coast. This was especially valuable for those whose only previous

experience was in the Great Barrier Reef.

The organisers scheduled five concurrent sessions over the four days of the meeting and the result was an interesting frenzy of musical chairs (scientific version) as participants switched their interests at the end of each paper. Papers were read on the conversion of calcium by the corals to form the skeleton of the reefs; coral nutrition and the utilisation of dissolved nutrients; settlement, growth and behaviour of corals and associated organisms and the patterns of their distribution and relationships within a coral reef. Geological sessions concentrated primarily on ages, formation, structure and development of reefs in various parts of the world, especially in the Caribbean and in the Great Barrier Reef.

There were also papers on conservation and Dr Baker described the Great

Barrier Reef Marine Park Authority and the way that Australia has set about caring for the Great Barrier Reef. This stimulated a steady stream of inquiries into the potential for employment in the Authority. The contacts established at the Symposium also provided the opportunity for collaboration between the Authority and similar organisations in other countries.

Despite the great distance involved, and present economic stringencies, fourteen Australian scientists found their way to the Conference. These scientists, (from Sydney, James Cook, Queensland, New England and Macquarie Universities; the Australian and Queensland Museums; the Bureau of Mineral Resources and the C.S.I.R.O. Fisheries and Oceanography Division) contributed a total of 26 papers (about 17% of the total).

Now coral reef scientists will turn their attention to the next symposium, which will probably be held in 1981, either in Israel or somewhere in the Pacific Ocean region. This matter has yet to be decided but one thing is certain — young (and old) Australian coral reef scientists will be setting their sights on attendance at what will certainly be a vigorous meeting, where they will hear of further significant advances in this relatively unexplored field of science.

Comments made by Dr J. Baker and Dr P. Mather.

Dr Baker is a part-time member of the Great Barrier Reef Marine Park Authority and the Director of the Roche Research Institute of Marine Pharmacology in Dee Why, N.S.W. He is a trustee of the Australian Museum, on the Committee of Trustees of the Lizard Island Research Station and a member of the Heron Island Research Board.

Dr Mather is a member of the Consultative Committee and is President of the Great Barrier Reef Committee. She has been Senior Curator (Zoology) in the Queensland Museum since 1973.

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important to them.

It is clear from these submissions, from responses to Alison Domm's recreation survey (see page 2), and from public meetings which have been held at Rockhampton and Yeppoon, that some areas are very heavily used and that there is a general concern that they are showing increasing signs of over-use.

It is also clear that there is widespread support for setting aside some areas for "non-extractive" (passive) recreation and some for research, whilst managing the majority of Reef areas by rotational zoning or periodic "spelling". Indeed, some amateur and professional fishing groups at various points along the Great Barrier Reef are already operating their own "spelling" programs.

With the assistance of all of this information, a report describing the reefs and the area, their history and current usage patterns is well advanced and will form the basis of a firm proposal for the

declaration of the first section of the Marine Park in the area. This proposal should be finalised in September and the report will then be submitted for the Governor-General's approval.

In preparing for the next stage, zoning, the Authority is working very closely with the Queensland Fisheries Service, and in October or November of this year, it is hoped to start a program of co-operative studies. These are designed, together with the public participation program, to enable a detailed and compatible set of zoning and management proposals to be ready for public review early in 1978.

Specific research projects which have been approved by the Authority, include the monitoring of crown-of-thorns starfish populations on Wheeler Reef near Townsville and in the Swain Reefs complex, by officers of the Queensland Fisheries Service. The Authority has also assisted in the scientific programs under-

way at the Lizard, One Tree and Heron Islands Research Stations (see article "Current Research and Investigations" on page 2).

To date, the Authority has not declared or zoned any parts of the Marine Park and consequently does not have its own inspectors. However, it is working closely with other agencies of the Commonwealth and Queensland Governments to protect the Reef's resources. For example, it has supported the Queensland Government's ban on the spear-fishing of coral trout on a commercial basis, and it has encouraged Commonwealth Government Departments to police, to the fullest possible extent, the activities of Taiwanese clam-fishermen.

The Authority is working to increase public awareness of the nature and fragility of the reef environment and to encourage sensible use of the Reef by the community for both recreational and commercial activities.

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