

## WORLD HERITAGE NOMINATION

### IUCN TECHNICAL REVIEW

1. IDENTIFICATION NUMBER AND NAME: 154 The Great Barrier Reef
2. LOCATION: East coast of Australia, from 24°30'S to 10°41'S. covering an area of 348,700 sq. km.
3. NOMINATED BY: Government of Australia
4. DOCUMENTATION:
  - (i) Nomination form, with maps and bibliography
  - (ii) Supplementary documentation (IUCN)
    - a) Bennett, I. 1973. The Great Barrier Reef. Frederick Warne and Co. Ltd. London. 184 pp.
    - b) Consultation: Dr. Edgardo D. Gomez, Marine Sciences Center, University of the Philippines.
    - c) Consultation: Dr. Roy T. Tsuda, Dean, University of Guam
    - d) Consultation: Dr. N.V.C. Polunin, Cambridge University
    - e) Consultation: Dr. Derrick Ovington, Director of National Parks
    - f) Consultation: Dr. M. Pichon, Assoc. Professor of Marine Biology, James Cook University, North Queensland.

### 5. BACKGROUND AND SUMMARY

The Great Barrier Reef is no doubt the world's most extensive stretch of coral reef and is probably the richest area in terms of faunal diversity in the world. Its great diversity reflects the maturity of an ecosystem which has evolved over millions of years on the northeast continental shelf of Australia. There are over 1500 species of fish, about 400 species of coral, 4000 species of mollusc, and 242 species of birds, plus a great diversity of sponges, anemones, marine worms, crustaceans, and many others. The reef comprises some 2500 individual reefs of all sizes and shapes, providing the most spectacular marine scenery on earth. The site includes major feeding grounds for the endangered dugong (*Sirenia: Dugong dugon*) and nesting grounds of world significance for two endangered species of marine turtle, the green (*Chelonia mydas*) and the loggerhead (*Caretta caretta*), as well as habitat for four other species of marine turtle; given the severe pressures being placed on these species elsewhere, the Great Barrier Reef may be their last secure stronghold.

### 6. INTEGRITY

The Australian Government is to be congratulated for including virtually the entire Great Barrier Reef in the proposed 350,000 square kilometre site. This is clearly the only way to ensure the integrity of the coral reef ecosystems in all their diversity. On the other hand, considerable exploitation pressures have been placed on the resources of the site. While it is the stated policy of the Governments of the Commonwealth of Australia and the State of Queensland to prohibit all drilling for oil which could damage the reef, one can only wonder how long such restraint can last in the face of rising oil

ices. A map provided by the Government of Australia shows 5 areas covered by offshore petroleum exploration permits in force, including virtually the entire reef between Cairns and Rockhampton, roughly half of the proposed site. Legal protection for the fauna of the site is variable, from total prohibition on dugong to size restrictions on certain fish (restrictions do not apply to Aborigines or Torres Strait Islanders living in the area). According to an IUCN consultant, the duality of responsible administrations (State of Queensland, Commonwealth of Australia), the lack of sufficient legal protection, in particular for the areas lying outside sections considered for zoning plan, and the lack of firm temporal commitment for declaration of other sections throw doubts upon the adequacy of current legal measures to ensure the long term integrity of the proposed site. It may be worth considering to restrict the World Heritage site to the fully protected core area and a larger managed zone (which might be established, with improved legislation, as a Biosphere Reserve). It should be noted that the northern-most part of the reef, not included in the nomination, comprises two unique types of reefs -- "Deltaic" and "Dissected" reefs -- and the highly diverse area of the Gray Islands; this northern portion also has extensive sea grass beds which support large numbers of dugongs.

#### COMPARISON WITH OTHER AREAS

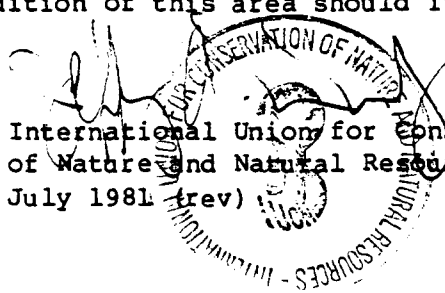
The Palau Archipelago of Micronesia may prove to have just as diverse a marine fauna of fishes and corals, but it lacks the great diversity of marine mammals, turtles, and birds. It seems clear that if only one coral reef site in the world were to be chosen for the World Heritage List, the Great Barrier Reef is the site to be chosen.

#### EVALUATION

There can be little doubt that the Great Barrier Reef meets all criteria under Article 2 of the Convention, as elaborated in the Operational Guidelines 21 (i) to (iv) and 22 (i) to (iv). The Bibliography of the Great Barrier Reef Province (Frankel, 1978) lists 4,444 publications dealing with the site and its environs, demonstrating the great interest in the area and the large amount of scientific work which has been done; the area is clearly unmatched in the world for coral reef research. The Great Barrier Reef Marine Park Authority, through its many activities in research, publications, and management has demonstrated its capacity to manage the site. IUCN's only concern is that the proposed site may be too large to ensure that a "precisely delineated area", as defined in Article 2 of the Convention, can be effectively managed and protected as a World Heritage site.

#### RECOMMENDATION

The Great Barrier Reef Marine Park meets the criteria of the Convention and therefore should be placed on the World Heritage List. The Committee should applaud the efforts of the Government of the Commonwealth of Australia in proposing virtually the entire Great Barrier Reef, and request periodic information about how development pressures are being managed so as to maintain the integrity of the site. The Committee should also note that the Great Barrier Reef extends beyond the northern boundary of the property nominated, and express a willingness to accept the addition of this area should it become available in the future.

  
International Union for Conservation  
of Nature and Natural Resources  
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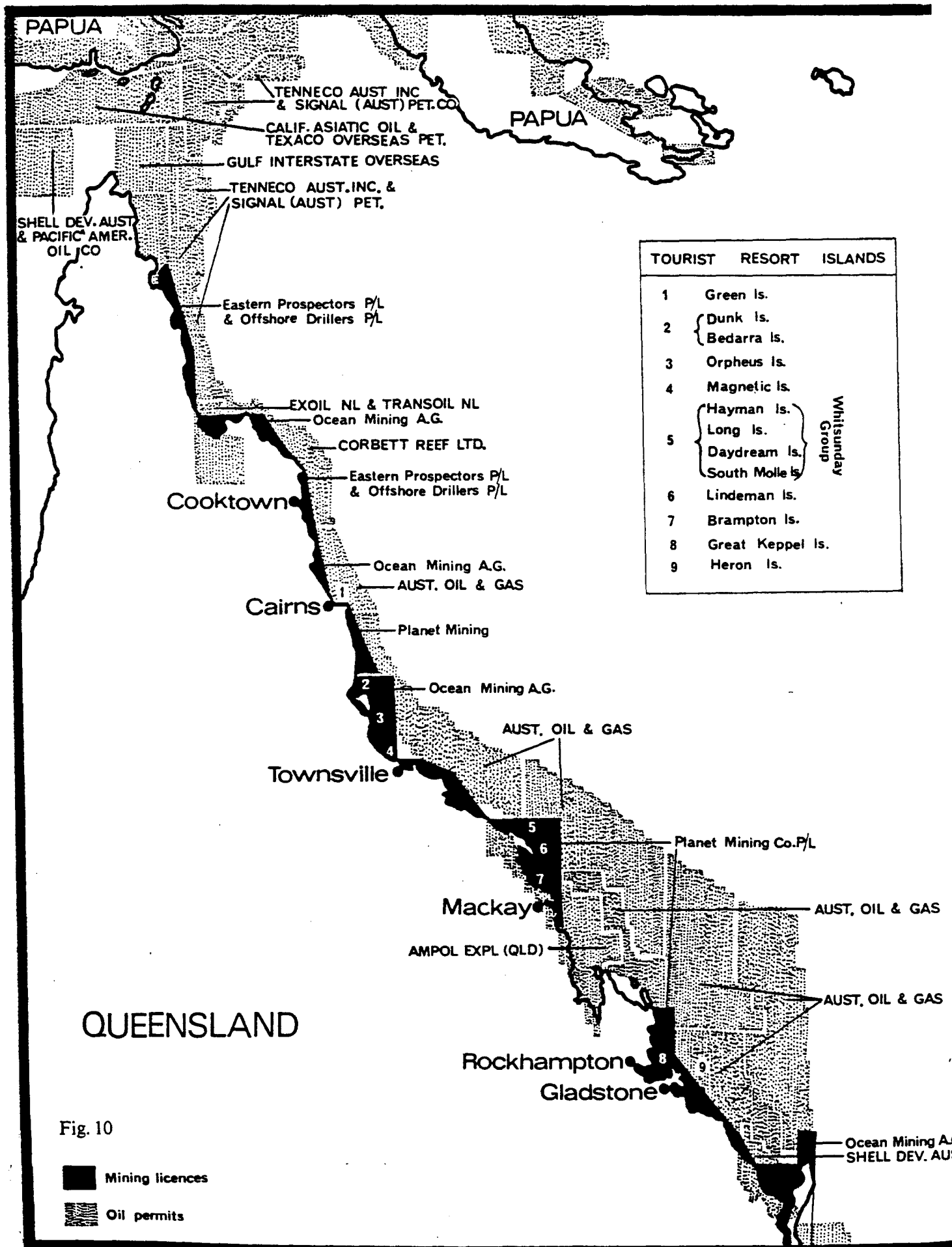


Fig. 10