

FOREWORD

The Great Barrier Reef Marine Park Authority is pleased to publish the results of an analysis of dugong by-catch data from the Queensland Shark Control Program and of the 1999 aerial survey of dugongs in the southern Great Barrier Reef and Hervey Bay.

Since the 1980s the Authority has committed a large amount of money researching the biology and conservation status of dugongs on the Great Barrier Reef. The results of aerial surveys in 1987, 1992 and 1994 suggested that a decline by over 50% in the number of dugongs south of Cooktown had occurred between the first survey in 1987 and 1994. This information was pivotal in the momentous 1997 decisions by the Great Barrier Reef Ministerial Council, comprising Commonwealth and Queensland Government Ministers, to initiate a number of new actions for the conservation dugongs on the Reef. In particular, 16 Dugong Protection Areas (DPAs) were established in the southern Great Barrier Reef and a restructure of net fishing occurred in the Areas. Ministerial Council is committed to ongoing review of its decisions regarding dugong and in 1999 and 2001 decided, among other things, to:

- introduce additional restrictions on the use of commercial nets;
- review the effectiveness of rules and level of compliance in relation to Zone B DPAs;
- move to develop co-operative agreements with Indigenous peoples;
- minimise risks to DPAs from on-land activities;
- upgrade procedures and give high priority to dealing with dugong strandings; and
- review the implications of the findings in the reports in this Research Publication for future research and monitoring of dugong populations and report back to Council.

In 1999 the Authority published a *Dugong Research Strategy for the Great Barrier Reef World Heritage Area and Hervey Bay* which was endorsed by the Ministerial Council as a guide for setting priorities, allocating funds and assessing performance of the dugong recovery and conservation actions. One of the recommended projects involved an investigation of factors influencing the mortality of dugongs in shark nets. Subsequently the Authority funded the study and it has resulted in the first report in this publication.

The results of the shark net study demonstrate that a dramatic decline in dugong numbers south of Cooktown has occurred since 1962, and that the current population is about 3% of its former level. In addition, the results of the 1999 aerial survey indicate that there has been a small increase in dugong numbers in the southern Great Barrier Reef, south of Cooktown. It is clear, since dugongs cannot breed rapidly, that the increase since the 1994 survey must be due to a movement of the animals into the southern Great Barrier Reef and Hervey Bay from other areas.

Variations in the dugong population south of Cooktown may be clarified later in 2001 when the results are known of an aerial survey of populations in the northern Great Barrier Reef that was funded by the Authority. In the meantime, it seems unequivocal that the surveys from 1987 to the present represent a relatively small fluctuation in the number of dugongs in a regional population that is at a much lower level than previously. As such, the reports comprehensively vindicate the actions for dugong conservation that have so far been taken by Governments through the Ministerial Council.

The Great Barrier Reef Marine Park Authority is pleased to make these reports generally available.



Hon Virginia Chadwick
Chair, Great Barrier Reef Marine Park Authority

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