

APPENDIX ONE

Existing Research Programs relating to Dugong  
and Traditional Hunting in Australia

- as of February 1984

EXISTING RESEARCH PROGRAMS RELATING TO DUGONGS AND TRADITIONAL HUNTING IN AUSTRALIA

Research Project	Funding Agency	Principal Researcher(s) & Assistants	Project Completion Date	Description of Project
Torres Strait Fisheries Study	Commonwealth D.P.I.	Dr R.E. Johannes CSIRO Wallace McFarlane	1986	<ul style="list-style-type: none"> <li>. 17 inhabited islands</li> <li>. relative importance of marine life in diet</li> <li>. distribution and hunting pressure on marine life</li> <li>. harvest methods</li> <li>. traditional fishing rights</li> <li>. conflicts between traditional fishing and other activities</li> <li>. traditional knowledge of marine resources</li> <li>. evolution of traditional fishery to present</li> </ul>
Field Study to Monitor Dugongs Killed by Members of the Hopevale Aboriginal Community in January 1984	GBRMPA	Dr H. Marsh J.C.U. Geoffrey Kelly	June 1984	<ul style="list-style-type: none"> <li>. obtain specimen material from dugongs taken for work on life history and reproduction</li> <li>. dugong catch characteristics</li> <li>. hunting techniques and hunting location</li> </ul>
Life History and Reproductive Biology of the Dugong	AMSTAC-FAP	Dr H. Marsh B. Hudson L. Marsh	December 1984	<ul style="list-style-type: none"> <li>. determining characteristics of Torres Strait Island dugong catch in terms of age and sex structure, longevity, age-specific fecundity, etc.</li> <li>. to construct a population model to estimate the effect of the present level of hunting on dugong members in this area</li> </ul>
Use of Photogrammetric Techniques - pilot study	Fund for Animals	Dr H. Marsh	ongoing	<ul style="list-style-type: none"> <li>. evaluate the potential of vertical aerial photography to provide information on dugong life history, behaviour and habitat usage</li> </ul>
Evaluation of Seagrasses as food for dugongs; functional morphology of the digestive system	Monash University J.C.U. GBRMPA	Janet Lanyon	December 1986	<ul style="list-style-type: none"> <li>. determine seasonal variation in the quality and abundance of seagrasses in the Townsville area</li> <li>. examine the functional morphology of the dentition and digestive tract of the dugong in relation to plant breakdown and digestibility</li> <li>. investigate any correlations between seagrass nutritional status and timing of breeding/movements in dugong populations</li> </ul>

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Traditional Uses of Marine Resources by Aboriginal Communities on the East Coast of Cape York Peninsula	GBRMPA	Andrew Smith	Stage I July 1985 Final June 1987	<ul style="list-style-type: none"> <li>. document current and traditional hunting and fishing practices at Hopevale, Wujal Wujal, Yarrabah and Lockhart River</li> <li>. acquire indigenous knowledge of biology and behaviour of tropical marine food resources in GBRMP</li> <li>. evaluate factors affecting resource usage</li> <li>. investigate need and implications for management of resource use</li> </ul>
Aerial Survey - Torres Strait	ANPWS	Dr H. Marsh	Stage I March 1984 further work anticipated	<ul style="list-style-type: none"> <li>. aerial survey of dugongs in Torres Strait to provide a minimum population estimate to be considered in relation to estimates of current harvesting levels</li> <li>. to provide a reliable index of relative density of dugongs in various parts of Torres Strait as a basis for monitoring population changes</li> <li>. to assess dugong habitat selection and utilization</li> <li>. to determine dugong group sizes</li> <li>. to map seagrass beds (to be ground truthed by Dr I. Poiner, CSIRO)</li> <li>. to identify potential sanctuary areas</li> </ul>
Analysis of Coastal Surveillance Data to determine fishing patterns	Raine Island Trust	Dr H. Marsh Brydget Hudson	June 1984	<ul style="list-style-type: none"> <li>. to use Coastal Surveillance sightings to analyse seasonal and temporal changes in fishing patterns in Torres Strait</li> </ul>
Writeup of data on management of Daru dugong fishery	J.C.U.	Brydget Hudson	July 1984	<ul style="list-style-type: none"> <li>. analysis of hunting and other data on 450 dugongs caught on Warrior Reef by Kiwai</li> <li>. analysis of social and cultural, historical data</li> <li>. integration with reef use</li> </ul>
Aerial survey of dugong	Northern Territory Conservation Commission	Peter Bayliss	ongoing	<ul style="list-style-type: none"> <li>. aerial survey of dugong from Davy Reef to Maningrida Reef including Melville Island, Bathurst Island and Croker Island areas</li> <li>. collection of data on Aboriginal harvesting of dugong</li> </ul>

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Seagrass bed surveys	CSIRO Division of Fisheries	Ian Poiner	June 1984	. prawn nursery habitat . Torres Strait and east coast Cape York
Aerial survey of seagrass beds and ground truthing - Far Northern Section, GBRMP	GBRMPA	Len Zell Dan Claasen	December 1984	. mapping of seagrass beds . 8 ground truth sites between Starcke River and Jacky Jacky Creek, including Corbett Reef
Use of satellite imagery to identify seagrass	CSIRO GBRMPA	David Jupp Dan Claasen	Phase 1 - June 1984 ongoing	. evaluate capability of Landsat and Coastal Zone Colour Scanner for locating submerged aquatic vegetation
Monitoring of Coastal Surveillance Data of Kimberley coast	W.A. Fisheries and Wildlife	Bob Prince	initial stages	
Dugong hunting by Aboriginal groups living in the north west of Western Australia	National Aboriginal Conference		initial stages	
Study of dugong behaviour in Shark Bay	Fund for Animals	Paul Anderson	ongoing project in abeyance	. seasonal patterns of dugong movement within the Bay . reproductive behaviour and social integration . predation of dugong by killer whales