

## **2.0 RESEARCH AND MANAGEMENT PURPOSES: A PROCESS FOR DEVELOPING RESEARCH DESIGN**

Many studies on recreation use of national parks and natural areas have been of little use to management planning because of limited interaction between managers and researchers in the design and completion of the research. Moreover, researchers are seldom involved in the decision-making processes related to planning and management. In this study, care was taken to involve managers who could potentially use the research results in the context of their decision-making processes from the very outset. No doubt, what facilitated this process was the fact that the first author was both a researcher and a participant of inter-section and inter-agency management planning teams for the GBRMP.

The site of the study location was decided in consultation with managers. As no such study had been undertaken before, and it was impossible to conduct the study over the whole GBRMP, it was important that the choice of study location was made very carefully. The condition specified by the researchers was for a site which received a variety of user groups, was an area managed by both GBRMPA and QNPWS (Queensland National Parks and Wildlife Service)<sup>1</sup> (i.e. had sea and land components to it), and for which results from a study on recreational/tourism use could help management in the near future (i.e. it fitted within priorities of management planning and permit assessment). It was important for the researchers to anticipate the application of study results from the outset, at least at an overall level. Therefore the choice of a complex and diverse site with representation of many of the user groups and physical and biological conditions of the GBRMP was required. Such a criterion would maximise the relevance of this study to other parts of the Marine Park.

Lady Musgrave Island and Reef was selected through this process of consultation with managers because it had all of the conditions specified by the researchers mentioned above (i.e. diversity of user groups, sea and land components and management planning priorities). It is the southern-most island of the GBRMP; a forested coral cay set on a vibrant living reef with a deep lagoon (see map 1). It is largely free of human-made structures, and maintains a natural look with only a few basic camping facilities (toilets, signs, garbage-bag box and a track), and a pontoon in the lagoon for one of the tourist operations.

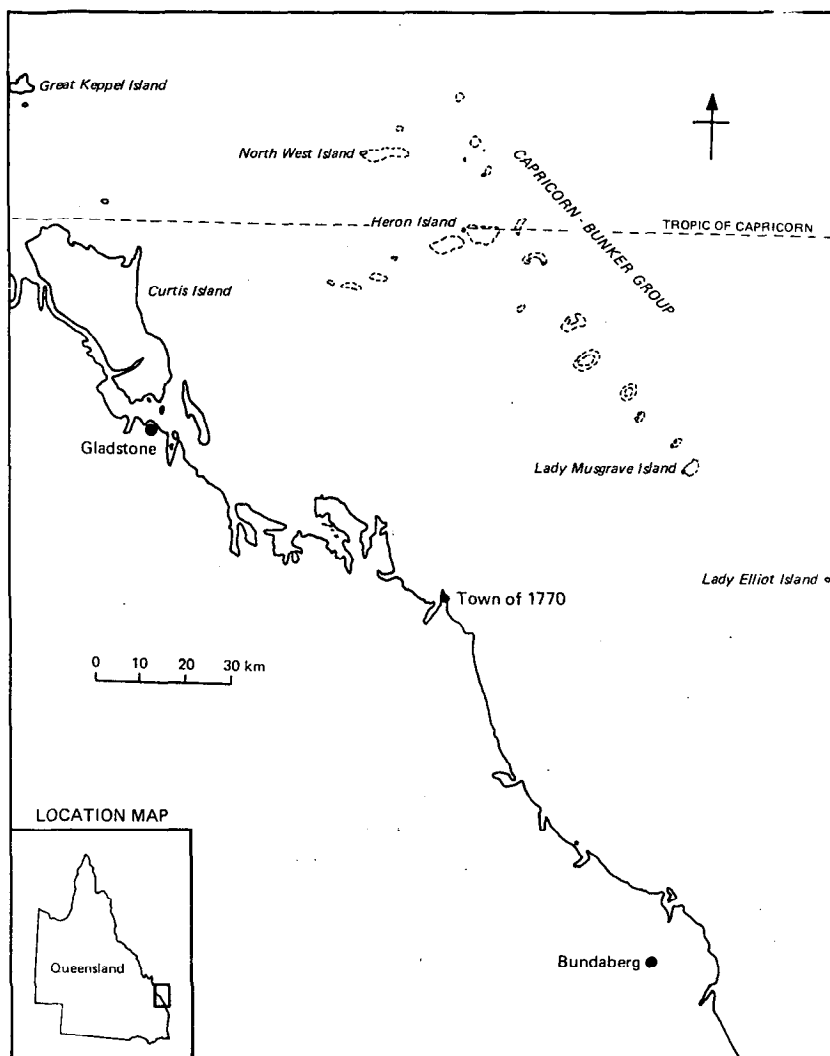
Three staff, one from the management planning section and one from the environmental impact management section of GBRMPA, and the third from QDEH, all working in the section of the Marine Park that incorporates Lady Musgrave Island and Reef, met initially with the first author (from the research and monitoring section of GBRMPA) for most of a day. A brainstorming session was conducted to bring to the fore all of the issues that managers perceived they were, or anticipated, facing in the management of Lady Musgrave Island and Reef, in particular with respect to human use. The initial number of issues presented through this process was much larger than what could possibly be canvassed in a single research project. A selection of more salient issues was then agreed to in the context of that group discussion.

The preliminary research design based on discussions from the above meeting was then developed (by the first author in consultation with Peter Valentine and later Richard Schreyer—both working as consultants to GBRMPA) and sent to the initial meeting participants (and other managers) for comments. Throughout this initial process there were ample opportunities for managers to convey their perception of management issues, and for researchers to communicate how these issues could or could not be addressed in a research design.

A pilot study was then undertaken at Lady Musgrave Island and Reef by interviewing a small number of users from all three user groups.

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<sup>1</sup> The current name for the agency is QPWS (Queensland Parks and Wildlife Service—part of the Environmental Protection Agency). When the study was conducted the agency was still called QNPWS and when the report was written it was called QDEH (Queensland Department of Environment and Heritage). Both 'QNPWS' and 'QDEH' are used in this report to refer to the same agency.



**Map 1.** Location of the study area

### User groups

**Daytrippers:** visitors who go on tour operations just for one day;

**Campers:** visitors who stay overnight and sleep in tents on the island and get there either with the regular tour operators or by chartered boats;

**Yachties:** visitors who get there by private or hired boats and anchor nearby the island and use the boats as their base.

The researchers decided to treat these groups as separate user groups to mirror the distinction made within the day-to-day management practices for the GBRMP (i.e. they are seen as visiting the place in different ways).

Researchers and managers participated in this pilot study (Lea M. Scherl, Peter Valentine, Richard Schreyer, and Peter Slaughter from QDEH). Discussions about the research design were held between interview times. After the pilot study the research design was finally reviewed by Lea M. Scherl and Peter Valentine.

Ultimately the issues addressed by the research design were a compromise between researchers' and managers' ideas. This may have been facilitated by the fact that the first author, as mentioned previously, had roles of both researcher and manager. Observations from Driver (1989, p. 600) are listed below to encapsulate some of the feelings of this process.

Work with practitioners reminds the scientist that most problems require multi-disciplinary skills, that many problems are either unsolvable or only partially solvable, that problems can be difficult to fit into tight research designs, and that most problems are changing and long term, so only temporary answers can be found.

We found that many problems/issues anticipated by managers could not be directly translated into a specific research question or a question tackling exactly that problem (e.g. how many boats can we allow in the lagoon before there is an impact on the amenity of the users?). Instead, a number of questions addressing different angles of a problem/issue could be asked.

Managers generally have little direct involvement with research, and this is more accentuated in the case of social sciences because it is relatively new in the resource management field particularly in Australia. As another way of strengthening the understanding between managers and researchers, most of the interviewers for this project were staff of GBRMPA or QDEH. Training sessions were held to familiarise managers with the interview procedures and to minimise inter-interviewer differences (see appendix 1 for information distributed to them). The very structured format of the interview schedules, behavioural procedures and interviewing style asked of interviewers were all aimed at ensuring that differences among interviewers were minimised (see appendices 1 and 2). In addition, debriefing sessions were conducted after every period of data collection (normally one week/person) to provide an opportunity for managers to reflect upon the process of interaction with users and on the information derived from this interaction. This, in addition, provided the researchers with a better understanding of how managers may or may not value the information they were obtaining, and the interaction with the user groups in the context of their everyday work. Feedback was also sought from interviewers on the logistics of conducting the data collection. Thus, through this process, researchers and managers also developed a broader appreciation of the logistics needed to conduct this type of research project, and how best to incorporate this within the organisational context.