

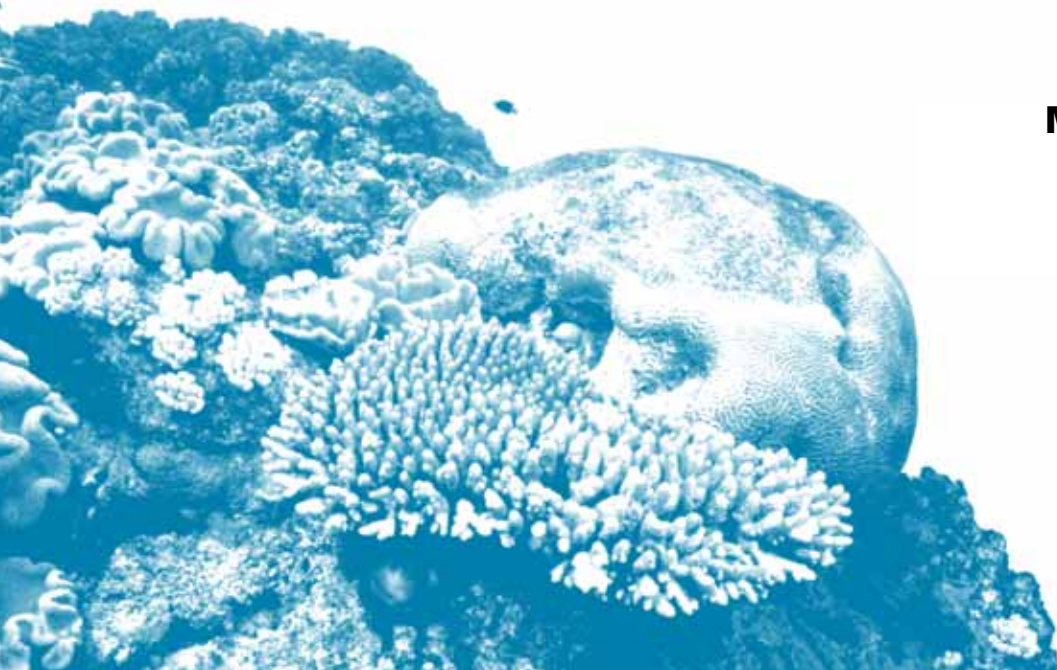


Australian Government
Great Barrier Reef
Marine Park Authority

RESEARCH PUBLICATION NO. 99

Reef Recollections: An Oral History of the Great Barrier Reef

**Madeline Fernbach
and Kate Nairn**



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Table of contents

Acknowledgments	3
Executive summary	7
Results	7
Analysis	8
Future directions	8
Background	10
References	12
Project aims	13
Literature review for oral history	14
Why science alone is not adequate	14
Why is oral history useful?.....	15
What does oral history do?	15
Methods for oral histories.....	16
Memory	16
References	18
Method	19
Theme 1: People profiles	21
Geoff Breslin	21
Brian Fogarty.....	24
Ena Coucom	25
Jennifer Mondora.....	27
Margaret Thorsborne	28
Tony Lee.....	30
Tony Fontes	32
Roger Kelly	33
David Hutchen.....	35
Small case studies	36
Theme 2: Reef change	39
Shifting Baselines	39
Environmental change	43
Rivers and coastlines	43

Fish and fishing	45
Corals.....	46
Changes in species.....	48
Whales	49
Wrasse/groper.....	50
Sharks	51
Turtles.....	53
Mackerel.....	55
Prawns	57
Crabs.....	59
Emperors, snappers and coral trout	60
Shells	61
Trochus and Clams	63
Crown-of-thorns starfish	64
References	67
Theme 3: Activity Change	70
Commercial fishing	70
Changes in fish populations.....	70
Changes in practices	71
Effects of regulations.....	73
Recreational activity	75
Fishing	75
Changes in shelling activity.....	77
Diving.....	78
Tourism.....	79
Theme 4: Community Perspectives	81
Population, community, family	81
Population.....	81
Population, boating and fishing.....	82
Community	83
Changes to community	85
Family.....	86
Fishing and social clubs.....	86
Changes to clubs.....	88
References	88
Theme 5: Place	89

Introduction	89
Region 1: Far northern and the Cape York Peninsula	90
The far north as home	90
The safe haven	93
The adventurer's paradise.....	94
Region 2: Northern	95
Growing up in the north	95
The north as a source of fish.....	96
Place and community	98
Region 3: Central.....	99
Mackay and Sarina	100
The Whitsundays	102
Bowen.....	104
Region 4: Southern	105
An affair to remember	105
Children and childhood	107
Mapping and classification.....	108
Attracting and catching fish.....	109
What lies beneath.....	110
Protection and threat.....	111
References	113
Reflection.....	113
Changes in and around the Reef	113
Reef change	113
Changes in activity	113
Community perspectives	114
Uniqueness of the regions	114
Stories across the Reef: availability and regulation.....	115
Stories across the Reef: activity, community and tradition.....	115
Stories across the Reef: work and livelihood	115
Shifting baselines.....	116
Management	116
Methodological comments	116
Future directions	117
Final words	117

Executive summary

As part of the social research program at the Great Barrier Reef Marine Park Authority, a need was identified to gather information about the state of the Great Barrier Reef in the past 50 years. While scientific data has been collected since the inception of the Authority in the 1970s and by the Australian Institute of Marine Science at around the same time, scientific data is less available for earlier decades. Social information about how communities interacted and engaged with the Great Barrier Reef over time is rare. Of particular interest is how the environment and community have changed over time. While scientific knowledge provides valuable insights into the present condition and causes of environmental change and the processes by which it occurs, it often lacks a historical dimension.

To this end, a series of oral history interviews were conducted with 50 local residents along the Great Barrier Reef Marine Park coast who had a strong connection with the Great Barrier Reef. Participants included a range of experiences and backgrounds including divers, commercial and recreational fishers, shell collectors, boaties, tourism operators and technical professionals. Interviews were transcribed and coded into a series of themes relating to the Reef, some of which emerged iteratively as analysis progressed.

Results

There were four main themes that were explored in this report: reef change; activity change; community perspectives; and place.

Reef change histories related early bounty, which declined with increasing commercial activity. Where this was regulated, stocks of these species were perceived to be regenerating.

Changes in activity on the Great Barrier Reef were triggered by decreased fish stocks and increases in technology so that commercial industries remained viable and recreational activities remained interesting. Recreationally, there was a shift to sports fishing, catch-and-release fishing, bigger boats and diving. Recreational shell collecting has shifted in emphasis to be more sustainable and has been limited in recent years because of restrictions in availability and on the number of shells allowed to be taken from the Marine Park. Tourism has shifted from small-scale demand-driven local operations, to new markets, sophisticated targeting of product, larger operations, creating experiences and building infrastructure such as an artificial reef or coral viewing platforms.

Community perspectives reflected the substantial population growth in most local areas and a shift from subsistence lifestyle to a more affluent one. In earlier days many people relied on fish as a major source of food, while now fishing is more a recreational sport for many people. In the 1960s there emerged a whole raft of interest clubs, such as for shell collecting, diving and fishing. This coincided with more spare time and provided a way of sharing limited resources such as boats to provide access to the Reef. This pattern continues today but membership has declined in many of these clubs as people are able to afford their own equipment and boats.

The fourth theme explored stories and recollections that were unique to each geographical region of the Great Barrier Reef Catchment Area: the far north and the Cape; the northern region, central region and southern region. See Figure 1 for details of the regions. Residents of the far north referred to their home with familiarity and it was a connection between place and

people that was very strong. The far north was seen as a safe haven or wonderland, providing a source of safety, beauty and adventure.

The northern region stories were characterised by a love of the place, a sense of belonging and of community. Fish supported the family and life was hard. In the central region, recollections focused most specifically on working hard and long hours, especially with respect to commercial and survival fishing and tourism. It was important in the central region to provide high quality service in tourism and this increased over the last 50 years.

The southern region had the strongest focus on childhood activities on the Reef. The southern region had an attraction that pulled people back again and again throughout their lives. The southern region also had scientific themes, including mapping, classification and research. There was, too, the thrill of attracting and catching fish, which went hand-in-hand with protecting the Reef and its fish populations.

Analysis

Across the four themes discussed in this report, three major stories are played out in the recollections. The first is availability and regulation. The second story related to activity, community and tradition. The third story common throughout the report is that of work and livelihood. These are explored more fully in the body of the report.

Rather than providing support for the theory of shifting baselines determining people's perceptions of the Reef, local residents' memories were coloured more by how they used the Reef (such as for commercial or recreational purposes) than by which decade they happened to be introduced to the Reef for the first time.

The strength of a qualitative study such as this is in its ability to develop an understanding of what particular people believe happened at particular points in time. However, some people's stories will have more factual accuracy than others. So many stories from so many people provide layers of stories that agree with each other. Where they differ, however, it is important that these stories are seen as a way of representing diversity of opinion.

Future directions

In the future, there needs to be an integration of existing scientific knowledge with oral history information to extend the time perspective of scientific knowledge and to identify subject areas for scientific data in the future. The information gained by this Reef Recollections oral history project is a rich source of data that can be used to explain and predict community responses to and maximise the effectiveness of management decisions.



Figure 1: Map of the Great Barrier Reef regions of analysis

Background

The Great Barrier Reef Marine Park Authority (GBRMPA) provides sound, just and receptive management of the Great Barrier Reef Marine Park and World Heritage Area by:

- Protecting the natural values of the Marine Park and World Heritage Area and effectively managing use practices which threaten the natural values
- Providing for a diverse range of use opportunities consistent with World Heritage obligations, nature conservation, cultural and heritage values
- Managing impacts of use to maintain nature conservation, cultural heritage use and community values
- Maintaining and enhancing diverse use which provides for the aspirations of reef users, Aboriginals and Torres Strait Islanders, residents and the global community
- Providing publications and information about the Marine Park in a form suitable for and accessible to our clients
- Disseminating research information about the management, appreciation and biological diversity of the Great Barrier Reef
- Providing high quality, timely, comprehensive advice to the Minister on marine environmental policy and legislation, especially that which impacts on the management of the Great Barrier Reef World Heritage Area.

One of the strengths of an agency such as the GBRMPA is that it combines operational monitoring and regulation with the collection and collation of scientific data about the Great Barrier Reef Marine Park and the people that use and inhabit the area around the Park. This information is valuable to provide evidence to inform decisions about how to best manage the Marine Park for the wise use, protection and enjoyment of it.

As part of the social research program in the GBRMPA, a need was identified to gather information about the state of the Great Barrier Reef in the past 50 years. While scientific data has been collected since the inception of the Authority in the 1970s and by the Australian Institute of Marine Science at around the same time, scientific data is less available for earlier decades. In addition, social information about how communities interacted and engaged with the Great Barrier Reef over time is rare.

Of particular interest is the notion to explore how the environment and community have changed over time. While scientific knowledge provides valuable insights into the present condition and causes of environmental change and the processes by which it occurs, it often lacks a historical dimension.

Several interconnected projects are aimed at exploring this concept of changes over time, in particular with respect to how scientific and social baselines of what the Reef was like have shifted or changed over time. This concept is referred to as “shifting baselines” and forms a key part of the purpose of this study.

Recollections of locals can supplement both historical records and scientific understandings of changing state, cause and process, to achieve a more comprehensive picture of change over time. A similar project was undertaken by Ruth Lane from the Australian National Museum. Ruth explored the role of oral history in environmental management in the Tumut Region of New South Wales. Her study of historical waterways found that local environmental knowledge, collected as oral history, was an important source of information for understanding

environmental history and the impact of changing patterns of land use (Lane 1997). Other studies also describe the benefits of multiple perspectives in management that recognise the importance of ‘community science’ (Robertson et al 2000). Other relevant studies include research into traditional knowledge as science or ethno biology (Medin & Atran 1999, Nazarea 1999, Robertson et al 2000).

In this document, a social research project was conducted to explore notions of shifting baselines and changes in use of the Reef and the environment over time. The project aims are provided in the next section and then the report is divided into four parts:

- Part one is a review of the literature associated with the use of social research and oral history methods in natural resource management, particularly within the Great Barrier Reef Marine Park but also more broadly. It explores notions of memory and the importance of collecting stories of the Reef to preserve its historical value and for the Authority to remain connected with community priorities.
- The second part is the method, which explores and explains more fully the procedures that were undertaken to collect data for the project.
- The third part is the largest and presents qualitative data under a range of themes:
 - profiles of individuals within the Great Barrier Reef catchment area
 - changes to the Reef over time
 - changes in people’s activities within the Great Barrier Reef Marine Park;
 - community perspectives about the Reef
 - examination of changes in perception of the Reef in different regions within the Marine Park catchment area.
- The fourth part is a reflection about the data: a synthesis of the stories, themes and data within the context of the Authority’s particular interest in shifting baselines.

In this final part of the report there is an exploration of the strengths and weaknesses of our method for collecting stories and a discussion about the next steps or opportunities for future work in light of the project’s aims. First, however, it is important to be clear about the aims of the project and these will be described in the next section.

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Judy Norman in her crocodile hunting days

Project aims

The aim of this project was to describe environmental change and social and cultural change through recollections of the Great Barrier Reef.

- To explore the concept of shifting baselines
- To explain how the Great Barrier Reef has changed over time
- To preserve and celebrate stories of local residents about the Great Barrier Reef
- To communicate and improve our understanding of the Great Barrier Reef's environmental history.

The objectives were to:

1. Engage internal and external groups in planning this project and identify local participants to promote engagement with the GBRMPA
2. Undertake quality research that improves our understanding of the Great Barrier Reef's environmental history
3. Communicate the findings widely to increase understanding of the concept of shifting baselines
4. Communicate the project approach and results to highlight community contribution to natural resource management.

Literature review for oral history

There is a growing body of knowledge that supports oral history as a valuable and necessary part of understanding and reconstructing history. Increasingly, the value of oral history as detailed local knowledge is being included during scientific study (Lane 1997, Daley 2005, Broderick 2007). The value of local knowledge cannot be overlooked when piecing together the past of the Great Barrier Reef. In the next section, literature relating to what oral history is and why it is important will be explored.

Why science alone is not adequate

In the case of the Great Barrier Reef, there is little historical documentation prior to the 1970s about how the Reef was experienced by people, an evident gap in our knowledge base if we seek to investigate the concept of shifting baselines. Shifting baselines explains the concept that an individual's first observation of an environment dictates their 'baseline' from which they form opinions of change. For example, a man who sees the Reef for the first time in a healthy condition in the 1950s, might think it to be somewhat degraded now. His daughter might see the Reef for the first time in the 2000s and could think it is healthy and beautiful. In 20 years' time, they may both note degradation and recovery, but it will be relative to their initial observations.

In contrast to historical documentation, science refers to a system of acquiring knowledge based on scientific method and to the organized body of knowledge gained through such research. If there is no scientific knowledge recorded for a particular area or regarding particular phenomena, then local knowledge is the sole source of information about the past. As Lane (1997) suggests, "recollections of local people can supplement both historical records and scientific understandings" (1997:195) in terms of both the causes and the process of change. Due to the gaps in historical record and the narrow time scale of social scientific findings, oral histories are needed in the Reef Recollections project to create a coherent picture of the Great Barrier Reef over time.

Oral history is placed at the interface between science and people (Roberts & Sainty 2000) and that is why such high profile international ecological documents such as the International Panel on Climate Change Reports and the Millennium Ecosystem Assessment use local knowledge to strengthen their information gathering. This is particularly relevant for understanding the evolution of human-natural systems and establishing baselines. Through collecting oral histories we can recognise previous states and patterns of change (Dovers 2000). According to Reid et al. (2006), when recreating a picture of the past, 'pure science' is lacking for three reasons. Firstly, it simplifies concepts to such a degree that it misses key connections. Secondly, it is generally written for a small scientific elite which is often inaccessible to many and thirdly the scope is limited to problems that are mathematical in nature. Further, Robertson, Nichols, Horwitz et al. (2000) argue that detailed observations of landscapes over a long period of time by non-scientists have as much rigour as other ecological knowledge.

Why is oral history useful?

People accumulate knowledge from their own experiences and from previous generations and the process of memory is tied to life experience. This means memory is trained to remember what is relevant to you, which makes memory more subjective but more detailed. This equally applies to scientific enquiry where a chemist studies chemistry and a geologist studies geology. Roberts and Sainty (2000) have found that if open-ended questions are used and genuine interest obtained, there was consistency in information provided across regions and by a range of people. Subjectivity, often equated to unreliability, is now considered to be valuable in understanding the impact of humans on the environment (Lane 1997). This is for two reasons: one, it is important to recognise the role locals have in changing their environment. Secondly, gathering stories can encourage an understanding of the reasons for people's attitudes and behaviours (Lane 1997). By appreciating people and their motivations, we can understand previously common activities that may now be considered damaging. Broderick (2007) also states that place-based communities may share common views, but may vary with ecosystem differences and social interactions. Similarly, people who undertake the same activity (e.g. fishers or divers) are likely to think in similar ways.

Environmental perception and social conditions are inter-related and affect each other. Social conditions influence how the environment is perceived. For example a trawling community may see large populations of prawns as healthy, whereas a tourism destination values vibrant coral assemblages higher. In turn, place affects identity in that sometimes people can label themselves and others with terms that relate to place, such as 'beach babe', 'Queenslander' or 'Gladstonian'. Daley (2005) explores this idea further in a study about how values impact on perceptions of past environmental changes and attitudes towards future changes. For example, fishers may not admit a decline in fish stocks because it is closely tied to their livelihoods and they cannot imagine a Great Barrier Reef without fish. In fact, the way people view the environment influences how they will act within it (Broderick 2007).

What does oral history do?

Oral history illuminates aspects of the past that are accessible only through memory rather than through published material (Slaughter, 2006). This is especially true where it is difficult to collect information found in historical documents and papers due to the large area of the Great Barrier Reef and scarcity of data before the establishment of the Marine Park 30 years ago.

Although oral histories of the Great Barrier Reef include some quantities of catch or prices of fish, most stories are vivid descriptions of the environment that can only be interpreted through qualitative analysis. Qualitative research is seen as academic, interpretive and socially situated inquiry (Daley 2005). Being specific about where people are talking about is repeatedly mentioned as one of the biggest factors in portraying good quality local knowledge. The spatial location and social situation is precisely what makes the knowledge local, regional, or global.

As information goes from regional to local scale it becomes more informal (Reid et al 2006). Across all scales, speech is the principal way humans transfer information and is the best process for conveying understanding according to Roberts and Sainty (2000).

Methods for oral histories

Robertson (1995) defines oral history as a tape recorded interview in question and answer format that is conducted by an interviewer who has some knowledge of the subject to be discussed. This interview is undertaken with a knowledgeable interviewee speaking from personal participation on subjects of historical interest, which is made accessible to other researchers.

The quality of data (Roberts & Sainty 2000) is determined by a number of factors listed below. The methods by which the Reef Recollections project met these factors are explained.

- Time specific: Dates obtained where possible, if in doubt to the nearest decade.
- Spatially explicit: place names clarified and locality of experience recorded on a map.
- Type of information: observations rather than opinion were guided.
- Reliability: triangulation of stories sought through interviews of various locals.
- Availability: information not available through other sources (these other sources were obtained where possible).
- Novelty: no study of this nature has been carried out previously.
- Time effective: oral history can only be obtained through interview.

In order to maintain this rigour, Pawson and Dovers (2003) create a few guidelines. First, the theoretical viewpoint and starting assumptions of the interviewer must be established (see also Daley), detail must be paid to spatial scale and placement for reasons stated previously and that the natural process of change the Earth goes through is remembered.

Daley expands the methods for obtaining reliable and unbiased information. He highlights the need to correlate the sources and stories for accuracy and that the interviewer does not influence the interview by imposing their own values. Lane (1997) reminds us the social context of researcher is pertinent: for example if people from the GBRMPA are collecting the information, the stories may be influenced to some degree by the interviewee's knowledge and opinion of the GBRMPA and the government in general. Reid *et al* also note that the interviewee needs to know who they are dispensing the information to and for what purpose. It is possible for a skilled researcher to reduce this influence by developing a good rapport, however, it is important to recognise that the information collected through stories can never be considered truly objective in any case.

When taking oral histories, another point to consider according to Robertson (1995) is to keep alert for potentially defaming opinions voiced by interviewees. In this case the interviewer can edit to remove it. When people's stories include threads that are spread through out the session editing is a good idea to summarise and capture key concepts in a clear way and is not seen to distort the story.

Memory

This project relies on people's memories and recollections of past parts of their lives. Recollection can be defined in the literature as the intentional use of memory (Jacoby, Toth & Yonelinas 1993). There has been a large amount of literature within psychology, sociology, anthropology and other social sciences examining the extent to which memory accurately reflects actual events – what is “real”. This literature is discussed above. In brief, memory varies in accuracy depending on a range of factors including how long ago the event was (the more recent, the better recall), the emotional connection to the event (negative events are remembered more clearly than positive events), the value of the memory for the individual (more meaningful or personal events are remembered more clearly than less meaningful ones) and uniqueness (the more unusual or unique the event, the better it is remembered). Recall can be assisted by

returning to an area after a period of separation, while if someone has lived in the area their whole lives, specific and individual events are less distinct.

The purpose of collecting stories and recollections about the Great Barrier Reef for this project was to describe the social, cultural and environmental change over time of the Great Barrier Reef. The stories people recollected were embedded in the culture of the place and time. People were invited to recall stories that happened in different places and different decades. These memories can be collated, compared and brought together to form a picture of how things have changed. In particular, it is easy to highlight the changes in the way people describe their activities (such as recollections of whaling in the 1950s, saving the whales in the 1980s, watching the whales in the 1990s). We can develop a picture of how the populations of sharks have changed based on people's descriptions of how prevalent they were in different decades. Through observing the differences in people's stories about community and culture over time, we can highlight cultural and social changes throughout the Great Barrier Reef.

The data is necessarily qualitative data: we did not aim to collect a representative sample of stories from a randomly generated cohort of community members: rather, we aimed to collect stories that reflected the richness and diversity of experiences. Are the stories accurate? They are remembered by individuals with the perspective and personality and culture of that individual. If we were to strip these personality-related details out of a story we could do so, with the aim of being more "scientific". But while this might allow us to obtain some pieces of information that may be seen as less value-laden than the richer story, it would remove the context and the life from the information. While nostalgia, or remembering things using the rose-coloured lens of times gone by, is obviously a significant contributor to the way people recollected things, in this study we have respected the flavour of the stories and celebrated the information as rich pieces of data. When two or more individuals describe events or situations that are similar, that strengthens the reliability of the information. Having said that, the participants in the study were aware that we were interested in information that was as accurate as possible and we encouraged them to provide detail that might be validated with more empirical data where this was available. Aristotle respected memory and recollection far more than this, though.

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Method

A literature review of oral history projects was conducted initially to assess the current methodologies. Project scope and geographical areas of interest were established in meetings with the Department of Anthropology, Archaeology and Sociology at James Cook University (JCU). The research team decided on issues, topics and themes of research importance for the GBRMPA. Reef Recollections encompasses research needs of both the GBRMPA and JCU, including the honours thesis of one student. Ethics approval was gained for the study through JCU process.

The GBRMPA scoped out local identities and relevant community groups that are prominent in the community. GBRMPA invited these groups and individuals to attend community events in 11 regional centres. These events were a stage for locals to share their “Recollections of the Reef” with each other and for GBRMPA to publicise the concept of shifting baselines to the wider community. These public events were gauged to draw a larger cross-section of the community than was currently accessed by GBRMPA.

Persons with particularly interesting stories of relevance or strong local history were approached by the project team for in-depth interviews, while other candidates were canvassed through word-of-mouth. Semi-structured interviews of approximately an hour were conducted with 50 participants and recorded with permission. Interviews were then transcribed, checked by the interviewer, then validated by the interviewees and edited according to the wishes of the participants. A participant matrix was created to assure a complete coverage of geographic area and user groups (e.g. commercial fishers, divers, conservationists). Once all the transcripts were revised, prevalent experience and themes were identified in each history. The interviews averaged 51 minutes in length. Three Traditional Owners in the far northern region were interviewed, as was one Torres Strait Islander and two Traditional Owners in the southern region. Due to events unrelated to the Reef Recollections oral history project, the two Traditional Owners from the southern region withheld their permission to use their information in the project.

Transcripts were then coded according to the relevant themes and inter-analysis reliability was established to 80 to 90 per cent accuracy. The excerpts and personal descriptions were authorised for each case study. Qualitative analysis software (NVivo 7) was then used to query the data according to the analysis framework (by time, region and theme). The analysis and discussion of these queries follow. See Figure 2 for an overview of the method.

The researchers took an iterative approach to the selection of the analytical themes and topics during analysis. An examination of initial themes prepared for the interviews (shifting baselines, change of reef over time, lifestyle and practices, activities, positive and negative change, protection, sustainable use, understanding and enjoyment of the Reef, species, time/decade) were the first step of the analysis. Then, based on the richness of comments on particular topics across the set of interviews, additional themes were identified (community, technology, boats, environment, facilities and government, Indigenous, major events, equipment and technology, recreational activities including swimming, shell collecting, fishing and crabbing, diving and snorkelling) and commercial activities (including trawling, fishing, charter). This is a methodological strength of the project as it allowed the emergence of information, determined by the participants, rather than solely relying on the theoretical and methodological perspective of the government-based researchers.

The process we used for species identification was a methodological weakness as it relied on memory and knowledge of species rather than using a fish guide. Use of a fish guide could have interrupted the flow of the interview, however we have lost some accuracy about the nature of fish species as a result.

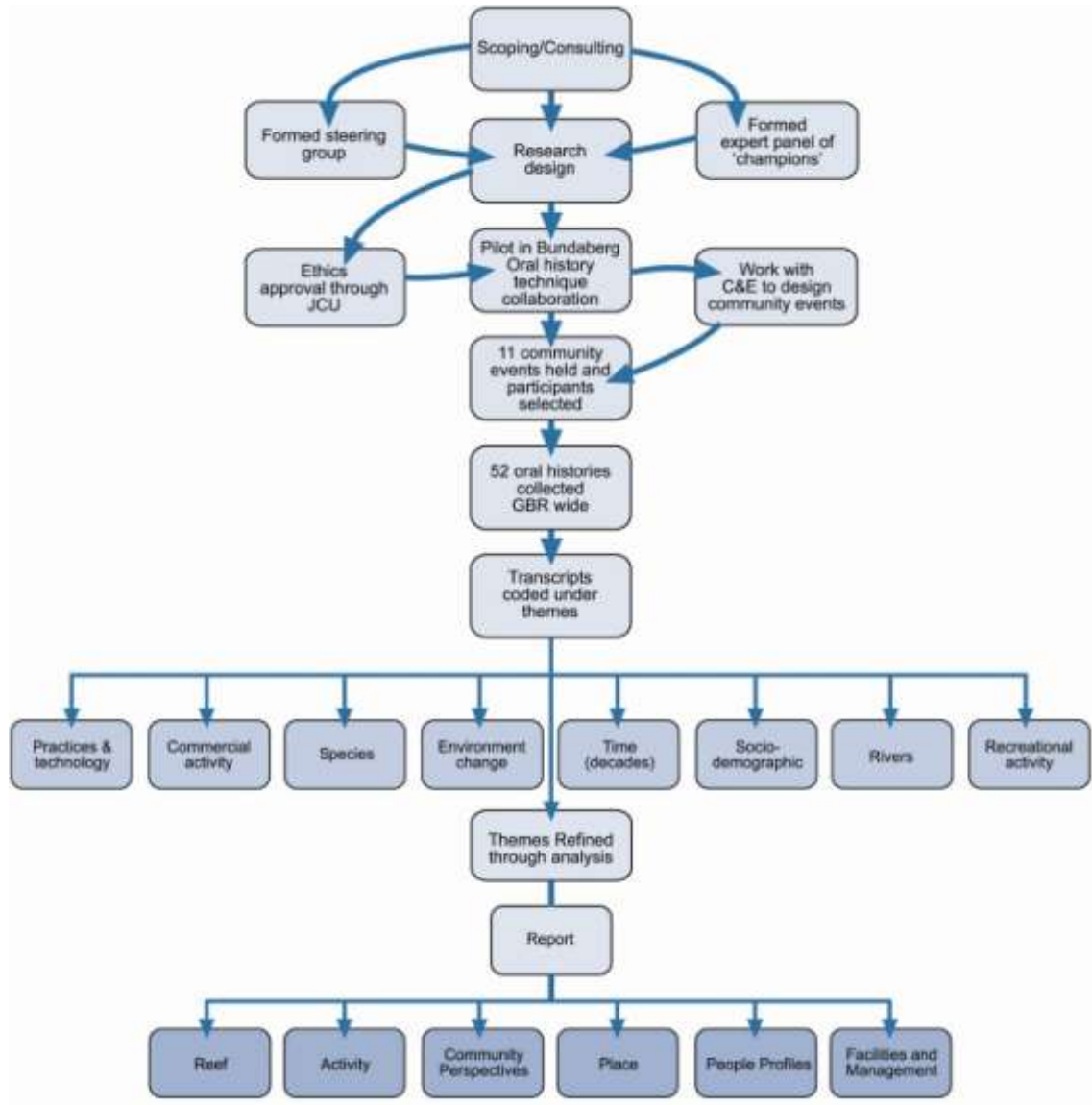


Figure 2: Overview of Reef Recollections Project Methodology

Theme 1: People profiles

The people who were invited to contribute their stories to the Reef Recollections Oral History of the Great Barrier Reef project were selected because they had interesting stories, or people referred us to them because they'd had interesting lives. As a result, every one of the people that recounted their stories was fascinating and unique. In this section, a sample of these people are profiled so that the reader can gain a deeper understanding of some of their histories.

Geoff Breslin

Geoff Breslin was born in Gladstone in 1928 like his father before him. Geoff has lived there for his whole life, except for 13 years when he was a meat inspector with the Department of Primary Industries. When the meatworks only had enough work for two or three days' work per week, he would go out fishing around the islands on the other days. Like a true Gladstonian, Geoff said:

That's all we did. Fish.

After his main job as a projectionist in the 1940s went up in smoke (as the Embassy Theatre burned to the ground), Geoff found employment as a cook at Heron Island and fished on his days off.



Geoff's first experience out on the reef in 1947 captivated him:

What looked like two feet of water was actually eight or ten feet of water. We used to go to the moorings, 40 feet of water and see these big sharks lying there motionless you know.

Closer to home, Geoff often fished off the meatworks wharf. He would use a cast net to catch tailor and golden yorkie and, using a line, doggy mackerel. He describes how many fish there could be on any one day in the 1950s:

The meatworks wharf was absolutely teeming, most months of the year, with tailor and golden yorkie. They'd disappear for a month at a time. When they came back, they come in at such a mass... You'd catch a doggy mackerel with four or five underneath trying to get that bait.

Even earlier, Geoff recalls his father telling him the fish were “thick” in the water but that the local residents would have trouble getting their catch home in the times when owning a car was rare. Some enterprising locals would help out:

...those without the interest in fishing, they had Model T Fords, they'd drive around and the payment was half the catch to drive the [fishers] home after fishing.

Not shy of controversy, Geoff is well published in the local media and caused a stir when he argued that speedboats had “a drastic effect” on the Queensland coast, especially boats that anchored in the shoals, disturbing the seabed. Likewise, Geoff said it was important to have areas of the Reef that are given a break from fishing and other activity. He commented about the effects of doing that on fish populations:

Give it time to replenish. You're only going to do that by spelling a place. [Charter fishing operators] are reporting now that they're getting bigger fish, better fish and that.

Over 70 years of fishing experience has taught Geoff many tricks and skills for catching fish. His technique rested on a piece of advice he received many years ago and which he was prepared to pass on to others:

A lady used to say the secret of fishing is to make the bait look for your fish, not the fish look for your bait.

Mike Prior

Mike is a local councillor in Yeppoon. He was born in Monto on a dairy farm and moved to Yeppoon with his family, where he got a taste for the sea:

I was suddenly exposed to a totally new world that I'd never even thought about. The reef to me was a revelation... The fact that you are out there over 100 miles from shore and dependent on a reef surrounding the boat that you couldn't even see at high tide to protect you from the elements.



Mike and his wife Margaret

Mike recalled the Reef:

It was mind-blowing to me to see the diversity of coral shapes and forms and colours, just incredible.

In the 1950s Mike signed on as crew on the River Song and his job was to work the 14 foot diesel-powered small fishing boat, or dory. Together with Wally Muller and Wally's dad, Mike spent much of his fishing time in the Swains, where there was little detail on maps about the location of the reefs. As a result, Mike and Wally named many of the reefs in the Swains so that they could fish safely and return to their favourite places. Some of these names remain today, including Elusive, Trout, Return, Mystery Reefs and Perfect Lagoon. He describes naming one reef:

That reef sticks in my memory because it was really remarkable the number of big trout that I caught in the dory on that reef. I spent the morning, it was only a little reef and I spent all morning working my way around the edge of the reef killing sharks trying to get fish past them and I filled the pit up in the dory with predominantly big trout, a metre long, 15 pounds and more. So we called that one Trout Reef.

Originally a farmer, Mike could see parallels between his early work and his life as a commercial fisher, because in both cases he was dependent on the weather and it was important not to take the natural environment for granted. He has a lot of respect for the breadth and depth of skills required as a fisher in the 1950s and 1960s:

You develop some sixth sense about where you are and your sense of direction and a whole lot of stuff about the tide, the wind, the colour of the water, stuff that gets ingrained in you after a few years of doing it. People can survive nowadays out there without the skills we had ... but you take those electronic aids away from them and they're in trouble.

Mike's main catch was coral trout and he noted that the numbers and size of coral trout, while plentiful the first time they went to a reef, decreased noticeably over the time he fished on that reef. One of the challenges he faced regularly was the race to bring the fish in before a shark got it:

I became so frustrated, because I'd get a sweetlip and there could be two sharks swimming around behind the dory and they wouldn't even look at it. Catch a trout and they'd be straight on to it. To the point that one actually hit the back of the dory with his mouth wide open and left most of his top teeth embedded in the transom. They'd just go mad. Sometimes if you'd managed to get a trout away from them they'd be rushing around under water and they'd race in and grab the prop on the dory because it was moving. You'd feel the prop go rattle, rattle, then the shark would come out shaking his head.

Likewise another story Mike recalls is one that involved Wally Muller and a hammerhead shark:

Wally had the pit nearly full of fish and the shark worked out that if he bumped the boat hard enough it would rock and some of the fish would fall out. So he'd gobble them up and then come back and bump again. So Wally started throwing his fish as far as he could and that went on until he had no fish left. This 16 foot Hammerhead kept coming in and belting the dory. Eventually [a fisher from the main boat] came quickly and assessed what was happening and he leaned over the side with a .303 and bang! No more shark.

In the 1970s, Mike took a National Geographic Magazine team on a six week charter trip along the Great Barrier Reef where he realised how special the Swains and the Capricorn Bunker were. He describes one experience in a cave at Laver's Cays in the early 70s:

It's just mind boggling. The colours of the soft corals and sea ferns hanging off the top and then coming up from the bottom and right in the back where the shelf met the overhang was this huge blue angel fish, just sitting there. When we turned around, framed in the opening was a big school of trevalley, just swimming past.

When asked if anything has changed over time, Mike described his main concern for the Great Barrier Reef, which relates to climate change. He says:

The reef is so vulnerable to relatively small temperature changes in the water. And the other thing is the accumulation of pesticides, fertilisers, weedicide, nutrients off the mainland. I'm not that sure that human beings, whether it's fishing or diving or spearing fish or whatever, I'm not sure that we pose a threat that can even begin to be compared with the unnatural threats of what we're doing to the climate and the pollution.

One role that Mike treasures is the development of the Capricorn Fisheries Advisory Committee, one of the first pre-cursors to the GBRMPA Local Marine Advisory Committees:

Back in the 80s locally here there was a lot of conflict between professional fishermen and the amateur fishing groups. We had a very astute local politician at the time who called a public meeting to get people together to try and address the problems and get people talking. A committee was formed and I was elected to chair the group. I can remember at our first meeting I laid down some pretty strict guidelines and said listen you guys, the only way that this is going to work is if we all leave our personal barrows at the door when we walk in. We're here collectively trying to solve some problems...I felt we had contributed something and the fact that we survived as long as we did was as much a tribute to the other people involved, not just to me.

Brian Fogarty

If there is one thing Brian Fogarty knows, it's fishing. Born on Thursday Island, growing up in Cairns and working out of Cooktown has given Brian a constant seaside backdrop to his last 61 years.

Brian and his mates used to go diving off Cairns in the 1970s and it was through exploring the underwater world that he got the idea of fishing. Back in those days you could buy "any old tub that floated" to make a start and although licences were available they were not required. Beyond that, it was the lifestyle that drew Brian to life on the sea: the idea of a nine-to-five job did not appeal:

I knew zilch about [commercial fishing] but I liked the idea of it and you could be your own boss and you didn't need a million bucks to get into it.



Although Brian has worked on a few different boats over the years, he is now a mackerel line fisher. After trying all the different fishing methods and gadgetry, he has chosen line fishing for a reason. After gaining 30 years of experience, he says he has come full circle and is fishing like they did 100 years ago, though this refers to technique more than technology. There are some things which Brian considers essential now, like GPS:

... you wouldn't even attempt to go fishing today if you didn't have one. Why waste your fuel and your time. It'd be like going boxing with one arm behind your back.

But the technology is not the only thing to have changed in the commercial fishing industry in Brian's time. In the waters of the far northern Great Barrier Reef, he has seen a dramatic drop off in the number of trawlers in the area. Thirty years ago there were 14 to 20 working out of Port Douglas and Cooktown, now there are two only working out of Port Douglas. On the other hand, live trout fishing increased markedly in the 1980s, resulting in far fewer mackerel fishers. That's not a bad thing says Brian, because the more people you have, the more competition you have.

One positive change Brian notes is the regulation of the industry, with the introduction of quota licences and the zoning. It means less pressure on the fishery. However, Brian thinks that it is a shame he is not allowed to keep all his catch (he only has a licence to fillet four species, out of the many species in the area) and he has to make sure every fish is identified and accounted for. Brian goes on to say that there is a harsh eye cast over the commercial fisher, yet a somewhat blind eye turned to the recreational fishers.

Although this year is shaping up to be a brilliant mackerel season, he hears reports in the media about how the commercial fishers are ruining the Great Barrier Reef. He says with a wry smile:

There's a lot of flack we get from people who just couldn't catch a fish if you threw it to them, you know?

Brian has seen many cycles and shifts over the years. He thinks there is seasonality to the fishery, there are good years and bad years and catch cannot be attributed to just one thing such as ring netters or El Niño.

Brian knows what it takes to catch a fish and it has taken 30 years of dedication to develop those skills to a point where he can tell if someone will be able to catch a fish just by driving past them and seeing where they are anchored relative to tide run:

... if I'd have had my knowledge then I could have been a millionaire today.

Ena Coucom

Ena Coucom was born in Sydney in 1930 and her family led a wandering life until the age of 14 when they settled in Yeppoon. Ena has lived in Yeppoon ever since and where all six of her children still remain. Ena's passion for shells was developed there by a friend who was a naturalist. She recalls a time in the 1950s when she and her sister met this friend who:

...showed us where the living cowries were and how to look after them and call them by their common names and things. Well, we had this case and we arranged them all out and that was the beginning of our shell collection.

Shell collecting became a focus for family camping holidays and, later, camping trips with friends. During her shell collecting days in the 1950s, 60s and beyond, Ena made 37 camping trips to many different reefs in the Capricorn Bunker group. Travelling on a 12 foot tinnie, the trips would last from 14 to 18 days. As they arrived at an island:

all the womenfolk would go ashore and we'd go round looking for camping sites – that was one of our first jobs. Then when all the gear came ashore, the menfolk would look for a place for a toilet and a shower.



The campers grew in numbers until they had 26 friends and family camping in the same area. They would collect shells at low tide and cook meals around that. Ena recalls her trips to Middle Island with delight:

It was just magic, the shells we'd never seen before were there.

In time, the interest in shells developed into the formation of a shelling club. Her friends in Yeppoon and other "shell people" started to meet regularly and then formalised the arrangement in 1962 with the opening of the Yeppoon Shell Club.

While shell collecting was seen as a hobby rather than a business, Ena mentioned that people would come to her house to buy or swap shells from her collection. Two experiences in Ena's life made her aware of the value of her shell collection. In 1968 an elderly couple from South Australia came to her house to look at the shells and they offered to sell their boat to Ena in exchange for market value of some shells:

...to us, it sounded like something out of this world. Anyway, we said we'd love that. He said, right, well, put some values on the shells and write it down and then when you get some more shells send them all down to us. We did and that's how we got our boat, with shells, just common shells.

More recently, Shell World was opened and Ena's collection formed the bulk of Shell World's exhibits. Ena now helps to run Shell World and continues her fascination and enthusiasm for them.

Jennifer Mondora

When you hear that Jennifer Mondora is in the National Pioneer Womens Hall of Fame for her promotion of women in recreational fishing and, with her husband, has been awarded the Ron Dempster Award for “exceptional contributions to the future of Sportfishing in Queensland” you begin to understand that Jennifer is more interested in fishing than your average recreational fisher. Jennifer was born in Eden on the New South Wales south coast. She recalls swimming off the wharves with the sharks, diving under the wharf for spent artillery shells and fishing in the rockpools with her grandfather. When Jennifer came to Cairns in the 1950s as a twelve-year-old, she became a keen fisher and diver.



The first thing she bought with babysitting money as a teenager was a mask, snorkel and fins. With these she spent a lot of time in and below the water. In the late 1970s and early 1980s, Jennifer used her snorkelling gear to find good fishing spots:

I used to get towed around behind the boat with a mask and snorkel on. I would identify a fish spot, bang on the back of the boat to stop it and mark the spot with a water bottle with sinkers. This was great for catching fingermark and to pick where good fishing spots were.

Jennifer was a founding member of the Cairns Rod and Reel Club, the Cairns Area Fish Stocking Group and the Tableland Fish Stocking Society. She sees the role of recreational fishers as caretakers of the environment for future use:

Maybe I am an optimist but I feel that the Reef will look after itself if fishing is not too concentrated into specific chosen areas.

Jennifer was proud of her role in creating bag limits for competition fishing in all of the fishing clubs she belonged to, especially as other clubs have followed their lead. In the 1980s, three prototype anchors designed to reduce anchor damage on the Reef were “dropped on our doorstep”. Jennifer noted a huge reduction in damage as a result of these anchors:

They were a godsend as they could be easily jiggled out of the reef proper if you positioned your boat precisely above the anchor.

When asked what she thought had changed about the Great Barrier Reef over time, Jennifer talked about the value of set reef moorings for big boats. She described the way the restriction in where the trawlers were allowed off the Cairns coast increased the populations of grunter (fish) because the trawlers used to test their nets in the channel and lead area:

When trawlers first started there were huge populations of grunter. One year it was perceived they took the whole grunter breeding population. We did not have grunter for eight years.

In recent times, Jennifer saw the populations of grunter improve. One of the most interesting changes Jennifer identified was the shifting attitude towards having small children in boats. When she was just married in the early 1960s, Jennifer said it was considered “reckless and dangerous” to take a child to the Reef. Despite this, they took their children and the children of their friends out on their boats because they felt it was safe: “we always had all the safety gear” and were strong swimmers. Things have changed in the last few years:

Now it is totally different. Parents of tiny babies lock the pram into the boat at the ramp then pack the baby and the sunshade in and away they go to the islands. Sometimes they have toddlers as well... they have a fish on the way home and the toddler with the pink or blue rod pulls up a fish for much oohing and aahing.

In recent times, though, Jennifer noted that boats are getting bigger to accommodate the changing use because:

Parents find that the tinnie is most unsuitable for the kids to nap in and dangerous to land fish in with the toddlers on the loose and the sides of the boat are too low.

In keeping with her role as a fisher and as a caretaker of the Reef, Jennifer is concerned that smaller fish, as they grow and move out to deeper water, need safe zones that are connected from close inshore to much further out. This is in relation to “Benthic Bottom” sponges disappearing, she says and the need for artificial reefs between shore and reef to be placed in rocky areas:

If there isn't a connection between the areas they live as small fish and the areas they live as medium or large fish, then there is a problem.

Jennifer continues to snorkel and to work through the fishing clubs to keep the Reef safe for future generations of recreational fishers.

Margaret Thorsborne

Margaret Thorsborne was born in Brisbane in 1927 and lived in Southport for many years. After seeing a friend's photo of Hinchinbrook Island, she and her husband Arthur loaded up their small boat to camp at Macushla Cove on Hinchinbrook. They were hooked immediately and after eight years of visiting the island, the Thorsbornes decided to move north permanently, near Cardwell. Margaret describes their motivation:

We just loved it up here and my husband's health was always better. He loved it. We used to come up before that in the school holidays. My husband was a teacher and we would go and we couldn't wait to get up here. No matter what the tide or the weather we would launch the boat and go over to Macushla and camp there.



Margaret embarked upon many camping trips around the Hinchinbrook and Brook Islands. As time went on however, she began to notice more people camping on these fragile areas and lobbied for their protection. She explains:

Well it was just a beautiful, unspoiled place. Not many people around. If another boat came to where we were camping, it was quite a novelty...

[Then there were] more people using them, more people coming to the islands. Then we lobbied that there be no camping on the Brook Islands because the islands are too small to take that sort of pressure and they're too important. No-one around here objected to that because it hadn't become a usual custom and no-one was really doing it, so no-one was put out by stopping the camping. People aimed just to protect one little group of islands; that's not asking too much is it?

During her initial visit to the islands, she also noticed some unusual birds:

That was where our interest in the Torres Strait pigeons started, because we knew nothing about them when we came up... we were quite new to the birds of the north and we thought there seemed to be quite a lot of these big black and white birds flying about around the Brook.

To begin with, at the suggestion of the Chief Fauna Officer of the Department of Primary Industries, Margaret and Arthur began the yearly pigeon counts. Since then, Margaret has attended the counts every year and has seen the near collapse and recovery of the population over the last 40 years:

The local people told us that the islands used to be white with pigeons, but now they were just about shot out. We started the counts in 1965, we saw a couple of thousand, which seemed a lot to us, but it was nothing to what the numbers were in the earlier days.

The next season we managed to stop another shoot, but the numbers were down to 1400... the counts have continued; they're really run by the National Parks Service now, but I go on counts and take part in them. And now the numbers are around 30 000, sometimes nearly 35 000.

Margaret describes the intrinsic value the Reef holds through the beauty of the creatures she observes, particularly the dugongs:

I think to see any of these creatures is a great delight... Well there have been manta rays; it's lovely to see them over at Ramsay Bay. They just undulate... They're just the most beautiful, beautiful things. Well to see anything; to see dolphins; or to see a turtle just lift its head out of the water and breathe and go down again; to see a dugong do that and if you're lucky you see its mermaid tail as it goes under...

[W]e've seen them quite a few times out at the Brook because there are seagrasses around there. Then we see them in front of Cardwell sometimes.

Although she claims no expertise in marine systems or animals her observations are spot on when talking about dugong habitat and connectivity:

Well as you know they need the seagrasses. There are quite a few species of seagrass. I think the corals are called the rainforests of the sea. Well the seagrasses are the pastures of the sea. They're very important, not only for dugongs but also lots of marine things that need the shelter and the sustenance they can get from the seagrasses.

Her passion for the environment saw Margaret take part in the protest over the clearing of the mangroves at Oyster Point in her late 60s. She relates development to the health of the Great Barrier Reef:

[M]embers of the public were present so that they couldn't clear the mangroves. So we'd go every day to try and protect the state marine park. But then the government gave the developer a permit to occupy and clear the mangroves, which meant he could remove people from the state marine park, so that's what happened.

So there's a whole kilometre of Hinchinbrook channel that has now got housing development, a kilometre of houses.

There would be thousands of tonnes of sand that would have been dumped in there to make a beach. How far out that goes and what effect that would have... I don't know how good that would be for the Great Barrier Reef.

Margaret and Arthur turned their property into a fauna sanctuary and it is now classified as National Park through their acts. Due to the dedicated years of conservation in the area, the renowned Thorsborne Trail on Hinchinbrook Island is named after her late husband Arthur.

Tony Lee

Tony Lee led a semi-nomadic life until settling in Melbourne to study law at university. It was here he met his wife Rosemary, who shared his dreams of life in the tropics. They first moved to Townsville for work in 1973 and found it green and lush after a good wet season. He remembers everyone being friendly, including the coast guards:

We went boating all around Magnetic Island on our little old inboard ski-boat and that began our love of north Queensland.

Being keen snorkelers, Tony and his wife set about exploring the reefs in the Townsville region and “quickly learnt that the reefs around were worth seeing”. Tony even upgraded his boat to a 17-footer to accommodate his new tropical lifestyle.



Tony says the offshore reefs such as John Brewer Reef and Slashers Reef were “very colourful, prolific, lots and lots of fish” in those days. A short while later he discovered the Palm Island group just north of Townsville, a playground for people of Townsville with good boats in the 1970s. Tony regards the Palm reefs highly:

We got to know the reefs around there which were spectacular and I tell you... the ones on the seaward side of the islands are still quite spectacular. I think they're some of the best reefs on the coast...

In 1974, Tony took a job in the wet tropics, settling a marital dispute on a small island off the coast around Mission Beach. He recalls how the jetty was rickety, the seas were rough, it was raining and how he was seasick. Yet despite all that he came away feeling “a million dollars”

for all the beauty. Tony has always had an ideal of “Adventures in Paradise” as he calls it: wild vegetation, jungle islands and fringing reefs of the south Pacific. And it was during this trip to the wet tropics, he found it:

I got back to Rosemary and I said this is “Adventures in Paradise”. This is where we want to be.

Instead of moving straight to Mission Beach, Tony and Rosemary started building their house there while they still worked in Townsville. Although the financial situation was better in Townsville they were prepared “to forego all that” for a better quality of life further north. In the 1980s they moved to Mission Beach permanently:

Here right today in 2008, if we go out to dinner, our concession to security is we leave the TV on. We never lose the car keys because they’re always in the ignition. It’s just lovely and that is a quality of life you can’t speak about. You can’t quantify it. It’s just living.

Tony’s love of the water continued in his new home overlooking the beach. He continued snorkelling around Dunk Island, Timana Island, the Brook Islands and other sand cays in the bay. It was here Tony began a new hobby of spearfishing, coached by a friend. Killing was never the thrill for Tony, he only ever caught enough for a feed:

It was being in their habitat that I loved. It was just swimming around with them and feeling part of them.

But life in Mission Beach wasn’t all “beer and skittles” for Tony. For the first 14 years he recalls that there were between 12 and 14 banana prawn trawlers running off the beach each night. The noise of the engines and the lights would disturb them routinely. In 2001 he’d had enough and Tony took Senator Hill to see the bay on a crystal morning. Tony painted a picture of the beach littered with bycatch and the subsequent unhappy tourists. Shortly after, trawling in Rockingham Bay was stopped. Tony now takes part in Seagrass Watch, monitoring the regrowth of seagrass in the area:

My main thing is I’m an optimist... maybe we’re not going to make a difference, but I think we should still try.

Tony Lee had always dreamed of diving around islands and reefs and after many years he is now living his dream in Mission Beach.

Tony Fontes

Tony Fontes is the chair of the Whitsunday Local Marine Advisory Committee (LMAC) and has 30 years of diving experience. He left the United States “as a backpacking dive instructor looking for adventure” in 1978 and after a year following the best dive sites he could find in National Geographic Magazines, he came to the Whitsundays. Airlie Beach reminded him of his home town in California 20 years earlier and so he settled, bought a dive business. After he sold the business in 1993, Tony trained divers in the Whitsundays and around Australia for many years.



Tony’s first trip to the Reef was unforgettable: the boat was uncomfortable but the diving was spectacular:

It left at 6.30 in the morning, took about a good four or five hours to get out to Bait Reef, there was no place to sit, nothing inside, you just sort of sat on the edge of the boat.

I was at the top of the anchor line and I could see the divers against the reef wall probably 15 or 20 metres away and just this vastness of coral and fish and everything you’d expect to see on a reef.

Although he loved running dive trips in the Whitsundays, Tony found he was having an impact on his favourite dive sites. In particular, the main area he dived was in Mantaray Bay and he could see a marked decline in the quality of the water and the coral due to flipper damage, careless diving and boat damage:

... we completely destroyed Mantaray Bay. [W]ith divers and anchors and helped, no doubt, from other people. I’d say from the late ‘70s, early ‘80s until they put in the reef protection marker buoys, we turned it to dust, practically.

Seeing the destruction of the reefs prompted Tony to find ways to recover, protect and conserve the Reef. While he found it difficult to encourage government involvement in the early stages, he recalls that media interest in 1994 (“somehow in ’94 a video of an anchor dragging through coral found its way to the 7:30 Report”) created a rapid response by government. In 1994 Tony was involved in the formation of the Order of Underwater Coral Heroes (OUCH). Together with the community, GBRMPA and the Queensland Parks and Wildlife Service, OUCH helped to develop a program to reduce anchor damage and other impacts on the Reef:

...we stepped in as volunteers to help kick off the program because it was really labour intensive. ... the most impacted bays were selected... we’d find the edge of the reef and then we marked it with these little white balls ... and then the Marine Parks came back and installed the first reef protection marker buoys.

Once they were installed, OUCH was responsible for maintenance of the buoys until the early 2000s where the government took them back over again.

One of the key changes that Tony had noticed over the years was the change in numbers of recreational boaters in the Whitsunday region, from the 1970s where :

...you didn't even pay attention to recreational users, they were out there in their little tinnies around the islands

This is contrasted with Tony's present day experience, where:

...you get out at Bait and I would say it would be an unusual day you don't have someone out there with their nice big white yacht...

This is reflected in the way tourism has shifted in the Whitsunday region over the last 30 years. Tony remarked that originally there were three or four dive shops and at one point up to seven dive shops in the area. However, the emphasis on diving has declined in favour of more boating:

Today the town has no dive shops and that's what I mean. Diving is very much a second entity to sailing and there's always been sailing and diving, now there's sort of sailing, sailing, sailing and diving.

Although this shift affected Tony's various dive businesses, he simply says:

[I]n diving money is a fringe benefit, it's a lifestyle.

Roger Kelly

Roger Kelly has lived in Airlie Beach for thirty years. After businesses in Sydney, Roger and his wife and daughter travelled the world living "the gypsy life". On their return, Sydney didn't appeal and they found Airlie Beach to be the perfect place for them to settle:

Knowing there are 74 islands out there, just a beautiful spot that we could go out in a boat and not stay in the same anchorage twice. I couldn't think of anywhere else along the east coast you can do that.



Odd jobs and a love of fishing led Roger to professional fishing. He took a third share of a big boat that was refitted in the early 1980s. The boat was the first to have blower deep freezers on it and it had an alternator, which meant that they had "all the mod cons" and lived pretty well while they fished in the Swains in the southern part of the Great Barrier Reef:

That's why we could stay out for six or eight weeks at a time and bring in between 12 000 and 16 000 pound weight of filleted fish, mainly coral trout and sweetlip.

Getting the hang of "wog fishing" for coral trout took some time. The line consisted of a lure, a long length of piano wire, the same length of fine stainless wire, some blue mackerel cord and

some heavy backing cord. Fishing for reef fish meant learning how to operate a dory, with foot controls, while fishing with his hands. It took him seven or eight days of fishing, morning and night, “trying and trying and trying” before Roger started to catch fish. Once he got the hang of it Roger loved the challenge of fishing close to the Reef.

As he noted:

...it takes a lot of nerve to bring a dory close to a reef, especially when there's a swell running and thinking I might get snagged... anyway, if you were not snagging coral occasionally, you would not be catching coral trout and sweetlip.

There was a time in the 1980s when Roger and his fishing companions netted a lot of “coral-munching Napoleon fish” and ended up with 600 pound of fillet in half an hour. The scales on the fish were as large as an orange and Roger’s wife sent a postcard home to her family written on a fish scale. While cleaning the fish:

The deck of the boat looked like someone had had a concrete pump there with all this ... mushed up coral... coming out of them.

The boat developed a reputation in the port of being one of the cleanest boats in the Swains. The generator on the boat meant that it had powerful deck pumps with which to hose off the boat. Roger recalls:

There wasn't a fish scale on that boat, there wasn't a smell, it was immaculate. Every time we came into port people couldn't believe it.

After being scarred with wire cuts and burns on his arms for two years, living at sea for months at a time and resting only for a week or so between trips it was time to give the commercial fishing up:

It was hard work, you know, it's not a life, it's not the money we made it was the money we saved because you can't do a lot out the back of the Swains for six or eight weeks.

Since then, Roger has noticed that the area from Rocky Point to Laguna Quays, which is a patch of dirty and muddy water, is a “magnificent breeding area” for prawns and fish. This area has had beam trawlers “going up and down New Beach” and as a result, Roger has seen the shore “littered with baby salmon...the so-called by-catch.” He is concerned that this area is open to trawlers and professional fishers which, he believes, impacts on fish stocks in that area and beyond.

David Hutchen

David Hutchen is a pioneer of the tourism industry in the Whitsundays. Born in New Zealand, David was a mad keen yachtsman and bought a boat very soon after arriving in Australia in the 1960s. In the early stages of the tourism industry in the Whitsundays, David started to run day trips to Hamilton Island on his sailing yacht, *Banjo Patterson*. When David visited Whitehaven Beach for the first time in the early 1980s, he said there was nobody on the beach because it was impossible to get there without owning a boat:



So I set up this boat to go to the Whitsundays, go to Whitehaven Beach on Tuesdays, Thursdays and Sundays. And within two or three weeks, it was chock-a-block every day, 350 people. So I had to make it seven days a week and I go round to Whitehaven now, there's 150 boats there. I claim a lot of credit for opening up Whitehaven Beach to the world.

What hooked him on developing the tourism industry was something that happened during one of his early trips taking people to Chalkie's Beach on Hazelwood Island. David recalls:

I taught a 93-year-old woman to snorkel. She said "I'm 93 dear." I said, "you breathe just the same as me, mum; you'll be all right. You just come with me." So I sat her on the beach in the water and I put the mask on her, got her to stick her head under the water and taught her to breathe. Half an hour later she was swimming and snorkelling over the top of this reef. She got off the boat at the end of the day and she was crying about the experience.

Developing tourism in the Whitsundays was "bloody hard work". David left home at five o'clock every morning and got home after seven in the evening, seven days a week. He was determined to create a positive experience for tourists who visited the Whitsundays through looking at ways of improving his service, such as new snorkel mouthpieces for each person when other tourism operators were giving out snorkels with "about 400 teeth marks all over them". His philosophy was to make people very happy.

I was always fussy about everybody and making sure everyone was happy and I ran around and made sure things were right. And if anybody ever complained about anything, I made sure they never had another complaint in their life.

Indeed, one of the most significant changes that David saw on the Great Barrier Reef was that there are more and more people experiencing it. He saw the opportunity to provide a mass tourism experience and has had a substantial role in improving access for tourists.

You couldn't get to the reef and then you couldn't get from one island to the next. So I started up a ferry business and we ended up moving a million and a half people a year on that ferry business, the Blue Ferries.

David feels protective of the Great Barrier Reef and has a history of defending parts of the Reef from the crown-of-thorns starfish. Since the 1980s David coordinated a number of campaigns to kill the starfish, including being “one of the movers and shakers” in the 1990s to get State and Commonwealth Government funding for a crown-of-thorns starfish control program.

We killed about 150 000 starfish over a period of about four years. And that 150 000 fish, had we not killed them, would've eaten about 400 square metres of coral a night up and down the Reef.

In general, David believes that the tourism industry has been well managed and has minimised the damage to the Reef. He notes that it was a learning process, where in the early days people were not aware of the damage that was being done to the coral in particular:

If I was going back into the business today, I would prevent people from having fins. And I'd show them why. I'd put a movie on, on the way out and say look, this is what happens if you have fins. They go chop, chop, chop through the coral. Fins are the things that have caused most of the damage.

This idea of educating visitors so that they can look after and protect the Reef is central to David's philosophy. He made a long-standing arrangement with all of the local schools in the area around the Whitsundays, where he offered to provide an end-of-year field trip for school children out to the Great Barrier Reef, on the condition that the Reef was included into their school curriculum.

And every school kid in the Whitsundays has been to the Reef, thanks to Fantasea Cruises. And I would say that the reef there has got a better chance of survival than anywhere, simply because all those kids know a lot more about it than other children in Queensland.

Small case studies

A series of case studies profiling some local residents and their oral histories was prepared to provide qualitative data to highlight key concepts for the GBRPMA. While the target audience for these case studies was an internal one, it does include interest for the broader readership and includes snapshots of people that are not always included in the people profiles. They are provided below.

John D'Urso is a passionate retired commercial fisher from Innisfail, who has lived by the Johnstone River his whole life. From catching fish as a teenager to feed his family to running charters on the Reef, he has always been by the water or in a boat. John's relationship with the water has been central to his life. He provided detailed insights into changes in the Great Barrier Reef and navigation skills and technologies but remains optimistic that the reef can recover from disturbances.

The Reef? Look, I don't know what can I say, the Reef I think is going to be there a long time. It will have it's ups and downs. But it seems to recover. When this all went on there was all sorts of hoopla going on about the Reef's finished, the crown-of-thorns are going to eat all the Reef, there'll be no more Reef. Now suddenly it's 30 years ago and the Reef's still there.

...you'd go to the Reef, don't ask me what reef we're on. We'd run up until we could see bottom and then we'd just go out a bit, throw the anchor out, throw your lines out and start pulling. That's how it was; honestly, I'm not exaggerating that's how it was. You'd

just catch more fish than you could handle. Now you go out with GPS, echo sounders, sonars, all the latest gadgetry; it's very quiet I can tell you, very, very quiet.

Dave Nissen has been a commercial fisher and run tourist charters in the northern Great Barrier Reef for many years. A born adventurer, he has always loved the bush and the water and is a keen observer of changes in the inshore reef and habitat. He describes how things have changed in one of his favourite spots since the 1950s:

I was just thinking the other day, at Bingil Bay there used to be seagrass right up to the edge of the beach there, the low tide mark and we used to run around spearing Moreton Bay bugs with spears made out of push bike spokes. You wouldn't even see a Moreton Bay bug now. Gone and the seagrass as well you know.

Jim Wardell is a small ships master from the southern region who also served in the hydrographic branch of the navy and spent many years helping chart the reefs of the Great Barrier Reef. He recounts many adventures on the sea, his favourite of which is scratching the head of a whale shark with his foot. Jim talked about how he has observed changes in the Great Barrier Reef over time:

I would say that the greatest changes you ever see are after cyclone devastation of different areas. That's when you can see noticeable changes but everything else, I suppose, would be such a gradual alteration that half the time you don't even notice it happening. If you went to one particular area and then never saw it again for 20 years, 25 years you would notice a marked difference I would imagine but if you're seeing those areas all the time you don't notice any variation.

Joe Linton is a canefarmer in the Burdekin and his family has strong ties with Cape Upstart. From the time he raced around in a tinnie as a boy, he has owned many boats and fished all his life. He is an integral member of the community and has been involved with the development of the Molongle Creek Boat Club. Joe's involvement in the Local Marine Advisory Committee better allows him to understand the issues facing his community and the Great Barrier Reef:

If you stick in your own little corner you'll always come out fighting. If you're pro development or pro fishing or pro conservation it doesn't matter what angle you're coming from, you'll always be biased to that sort of approach. But what I've found by being involved in groups like the LMAC, it gives you a real opportunity to be able to sit across the table and talk with and argue on some occasions, but get an opportunity to get the message from the other side in an open manner so it's not confrontationist.



Joe Linton

Margaret Thorsborne is a lively 81-year-old who lives nestled deep in a Melaleuca forest in the northern region of the Great Barrier Reef. She has had an epic career of activism and conservation and has been integral to the documenting of the recovery of the Torres Strait (Pied Imperial) Pigeon. The Thorsborne Trail on Hinchinbrook Island is named after her late husband.

Well there have been manta rays; it's lovely to see them over at Ramsay Bay. They just undulate... They're just the most beautiful, beautiful things. Well to see anything: to see dolphins; or to see a turtle just lift its head out of the water and breathe and go down again; to see a dugong do that and if you're lucky you see its mermaid tail as it goes under. You don't often see that, but that's pretty nice if you just see that beautiful mermaid tail.

The local people told us that the islands used to be white with pigeons, but now they were just about shot out. We started the counts in 1965, we saw a couple of thousand, which seemed a lot to us, but it was nothing to what the numbers were in the earlier days.

Then one day we went over and found there had been a shoot, it must have been some weeks earlier, they were still being shot at that time. There were feathers everywhere. There were empty cartridge cartons and all the evidence of shooting.

The next season we managed to stop another shoot, but the numbers were down to 1400. ... the National Parks people became involved later and the counts have continued; they're really run by the National Parks Service now, but I go on counts and take part in them. And now the numbers are around 30,000, sometimes nearly 35,000.

John Smith has spent his life on the Great Barrier Reef coast. Growing up in Proserpine and later Bowen, he became involved in the early days of the tourism industry in the area. John worked for many years on charter boats in the Whitsundays. He describes his expectation as a recreational fisher:

I mean, you can go out there and catch next to nothing and still have a good time, but it's a better time if you come back with something to show for it.

Robert Wood is a sports fish charter operator in the southern region. He moved to Sydney in his 20s and returned after 10 years saying "The only reason I came back was for the Reef". His spectacular collection of game fishing lures attracts both fish and fishers with equal success. Over the last 20 years, Robert has developed an understanding of the way people's use of the Great Barrier Reef has changed and the factors that influence this. Here he describes an average day on a small line fishing boat in the 1980s, a situation that is different in the present day:

...they'd fill the boat with ice and bait and fuel and they'd go out to Lady Musgrave and fish around there for three days and they'd try and get about 1000 kilos of fish to make it pay and then they'd come home. ... we'd stay at the island every night. That was a pretty popular thing with smaller boats and there was a lot of commercial boats around the 30 foot, 30 to 40 foot mark that were doing that for a regular income. But those guys are gone because the fuel costs have pushed them out of the industry.

Jim Edwards began his fishing career at the age of 13, going out with his father in an old kerosene boat. In the 1970s he started trawl fishing in the central region. Through decades of observing change on the reef, he has developed some pertinent observations on the commercial fishing industry and the environmental state. The charismatic 70 year old relays this sentiment:

No it's not the same, of course it's not the same. It's the not the same as far as the fishing goes because, as I say, you fish outside the reef now, you won't catch much in the lagoons at all because there's nothing left in there... But as far as fish goes, there's more fish caught now than ever when I was going out there because there's a lot more fishing boats, a lot more effort and the boats are catching more per boat than what we used to catch.

Theme 2: Reef change

Shifting Baselines

In my work as a scientist, I find that few people really appreciate how far the oceans have been altered from their pre-exploitation state, even among professionals like fishery biologists or conservationists. A collective amnesia surrounds changes that happened more than a few decades ago, as hardly anyone reads old books or reports. People also place most trust in what they have seen for themselves, which often leads them to dismiss as far-fetched tales of giant fish or seas bursting with life from the distant, or even the recent, past. The worst part of these "shifting environmental baselines" is that we come to accept the degraded condition of the sea as normal.

[Roberts, C. "The unnatural history of the sea" 2007 pp. xiv-xv]

Cape Tribulation back in the 70s was the most beautiful beach, you could walk out on the sand and the coral was just there. Even my kids now they're not seeing it as nice as it was, because even now I talk to people they go oh, it's just so beautiful.

[Frank Cooper, Port Douglas]

As described in the literature review, "shifting baselines" explains the concept that an individual's first observation of an environment dictates their 'baseline' from which they form opinions of change. One person might see the Reef in a healthy condition in the 1950s and may think it is somewhat degraded now, however another person who sees the reef for the first time now may believe it to be healthy and beautiful. In 20 years time, they might both note degradation and recovery, but it will be relative to their initial observations. If there is no scientific knowledge recorded, then local knowledge is the sole source of information about the past.

This year has been a bad year. And there was a chap here this morning. And they'd been out and fished all day and got three trout and one mackerel, which they thought was wonderful for now. Where you'd get 20 or 30 trout not long ago and no trouble.

[Gwen Beitzel, Wonga Beach]

Shifting baselines, therefore, particularly relates to recollections of the state of the Great Barrier Reef over time. In Table 1 below, the changing perceptions of the Reef are detailed. It is evident however that people's recollections and perceptions can be influenced by their values and, in particular, the ways in which they use the Great Barrier Reef. The second section explores the spatial values that affect people's attitudes towards one element of the Great Barrier Reef. This element was chosen because there are clearly polarised views of the subject: the crown-of-thorns starfish.

The decades that people recalled stories of were relatively well spread throughout the geographical areas, with stories of the 1950s, 1970s and the 2000s most common (see Table 2 for a breakdown of oral histories across geographical areas and decades).

Table 1: An analysis of perceptions of the Great Barrier Reef over time

Name	40s	50s	60s	70s	80s	90s	00s
Robert Wood (charter, sport fisher)					Coral bleaching happened.		Coral just as pretty all along the coastline. the areas come back.
Terry Must (fish wholesaler)					We don't see any real changes in the reef.		It's still the same reef we went to 20 years ago.
Tony Lee (diver, spear fisher)					The reef looked good.		The reef doesn't look quite as good as it did when we first went up there
Robert Wood (charter, sport fisher)					Lady Musgrave it was a beautiful vibrant lagoon.		Now it's a lot of broken coral due to chains on boats.
Comparisons and recollections of the coral and reef from the 1980s to the present were either static, in that people thought the reef had not changed substantially since the 1980s, or there was a perception that the quality of the reef has declined.							
Brian Atherton (professional fisher and trawler)				One end of Eton Reef wasn't bad and the other end was dead looking. There was nothing there (no fish).			The quantity of fish we did catch in 70s was better and bigger than what it is these days.
Bruce Shepherd (farmer, recreational fisher)				In Bingil Bay you could be in the water half looking at coral, half looking at rainforest.			That's now all gone, no coral there at all.
The comparison from the 1970s to the present day is clearly one that indicates a decrease in quality from that time: both for fish and for coral.							

Name	40s	50s	60s	70s	80s	90s	00s
Neil Tabo (trochus fisher, Islander)		Coral was beautiful, nothing damaged.					Now we've got damage from the rivers, poison the coral reef.
Dave Nissen (professional fisher, charter)		A lot of the reef is crap (bits of coral and bits of seaweed, bommies with holes in them)					I've been diving on those reefs for 50 years and I don't reckon the reef's changed.
George Betteridge (trawler, conservationist later)		Inside Cape Upstart, coral has taken over 50 years to grow back.					[Coral] has grown back and [Cape Upstart] has beautiful coral growing there now and big clumps of it.
The comparisons from the 1950s to the 2000s are quite mixed: some areas people are reporting as improving, others not changing and others deteriorating. The improvement of reefs from the 1950s is interesting, perhaps as a result of much damage during World War II and the resilience of the corals.							
Mike Prior (professional fisher)		Snake Reef was covered in algae – “all murky and dead looking and weedy sort of stuff growing all over it”.		Snake Reef was quite good in the 70s			
A comparison of Snake Reef from the 1950s to the 1970s is clearly positive.							
Mike Prior (professional fisher)		Capricorn Bunker & Swains: coral was good.		The quality of coral deteriorated markedly.			
Gordon LaPraik (amateur marine biologist)		In Maisey Bay there was a huge area that filled a curve of the bay, of staghorn corals. In 1956 or 1957, it was all dead, covered with moss.		20 years later, it was all back again, just as luxuriant as it had been before.			
Two comments from people in the same geographical area compared the 1950s with the 1970s. It should be acknowledged that they have different scales (one is broadly inclusive of the Swains, while the other is specifically one bay in the area), however they are quite conflicting in terms of flavour. No information from these local residents was provided on the most recent state of the Reef in these areas.							

Table 2: Numbers of histories covering time periods and regions.

	pre 1940s	1940s	1950s	1960s	1970s	1980s	1990s	2000s
Southern	1	5	9	6	7	7	7	8
Central	0	0	2	2	2	1	0	1
Northern	3	8	6	8	12	6	6	8
Far Northern	0	0	2	4	4	5	4	4
Cape York	1	1	1	2	2	4	3	4

Note: each history could cover any number of time frames and hence numbers add to more than 50.

Tony Lee went to Townsville for a job interview in January 1973 before the wet season:

It was so hot, I just wanted to turn around and get back on the plane. It was as dry as a chip as Townsville can be, hot, sweaty, mangoes under the arms. I thought this is dreadful... I did go back to Rosemary and say no, it's not for us, it's too hot, it's dreadful, it's absolutely appalling.

[Tony Lee, Mission Beach]

Then his wife came up with him in April after the wet season had come:

...the place was green, Magnetic Island was ringed in cloud. ...We went boating all around Magnetic Island on our little old inboard ski-boat and that began our love of North Queensland.

[Tony Lee, Mission Beach]

Frank Cooper noted that:

I'm fortunate in that I've lived a time when it was there in all of its beauty and providing masses and masses of ... fish for people to eat. I'd love my grandchildren and their children and their children to see what I've seen. They won't now. Even my kids now they're not seeing it as nice as it was although it's going to take a long time to destroy it, a long time to destroy it, because even now I talk to people and they go oh it's just so beautiful.

[Frank Cooper, Port Douglas]

Environmental change

The environment of the Earth is in a constant state of change. Although much change is imperceptible during our lifetimes, there are many changes of which we take note. This section explores some of the observed changes within the Great Barrier Reef Marine Park. Changes are observed as cyclical, sudden or gradual, or in relation to a certain event or phenomenon. Changes can be considered natural or human induced and depending on the nature of the recollection, changes were often judged as either positive or negative.

Three areas proved of particular interest when describing environmental change in the Great Barrier Reef: rivers and coastlines, fish and corals.

Rivers and coastlines

There are 37 significant rivers that flow into the Great Barrier Reef Lagoon (See Figure 3) Major Great Barrier Reef river systems with huge catchments include the Burdekin and Fitzroy Rivers which flood infrequently. This is in contrast to river systems in the wet tropics such as the Herbert and Tully Rivers which often flood annually, but have smaller flows. It is important to note the variability between river systems throughout the Great Barrier Reef catchment which makes it difficult to compare rivers. This emphasises the importance of local environmental factors and effects.

Rivers are an important part of the greater Great Barrier Reef system and are intricately connected to the health of the system. They provide reef fish species with spawning and feeding habitats and they also deliver freshwater, nutrients and sediment to the reef system. Since European settlement, the discharge of sediments and nutrients has increased significantly as land has been cleared for agricultural production and urban settlement.

The Great Barrier Reef rivers play an important role in many peoples lives, as they are more accessible than a reef trip to those with smaller boats and are accessible to those without boats. These stories describe how the rivers have changed over time as observed by locals with intimate knowledge of the Great Barrier Reef systems.

Variability

A recurring theme of river stories is the variability of the rivers. Many of the Great Barrier Reef rivers have distinct times of flood.



John D'Urso, overlooking the Johnstone River

Many interviewees commented on the heavy wet season experienced in early 2008. Glenda of Bowen describes how the weather patterns can affect the river:

The most noticeable thing, just from the weather, is the river mouth, it can change from one week to the next with the wind and the tide and then if it's flowing as well, like at the moment, it's gouged out two-thirds of the big sand dune that was on one side.

[Glenda, Bowen]

Joe Linton from Ayr describes how the natural shifts of the beach are cyclical and can be quite dramatic:

[I]n Moonlight Bay, right at this very moment we've got the most sand that's ever been in that bay. It actually is accumulating in our bay. I can remember it would be now probably say 35 years ago there was a period there that on those beaches there's actually a shoal stone that's below the sand and that was exposed on our beach... [Now there is] over a metre of sand that had placed itself on top of that shoal that was exposed.

[Joe Linton, Ayr]

Flood

Sediment delivers vital nutrients to the ocean, but can also have devastating effects if a thick layer smothers or chokes an area. In 1980 one cane farmer from Sarina noticed that the Tara River was flooded with what looked like 'black paint' from washing out a large pool of dark, decomposing organic matter upstream. Lionel Bevis of Yeppoon commented on a flood event in the 1990s:

I have seen the sediment plume from the Fitzroy River after the big 90-91 flood, that was the one that killed all the reef out here at Keppel Island. It was enormous. You wouldn't believe that it could go so far out, you know. And yet, why not?

[Lionel Bevis, Yeppoon]

River fish

Both commercial and recreational fishing have also put pressure on fish, prawn and scallop populations, especially in rivers. Neville Eathorne recalls that in the 1960s "there might only be two boats in the whole Burdekin River" whereas now there are "boats everywhere". John D'Urso recalls how the Johnstone River estuary at Innisfail has changed, although he notes it was gradual and he is uncertain of all the compounding causes:

Our family were battlers and the bit of fish I brought home from the river was an important part of our fare you know... the river was full of fish in those days... You won't catch any in the river now.

[John D'Urso, Innisfail]

Human impact

The coastlines are also changing both as a result of human activity and natural events. Laura and Blair Scott of Ayr, said the beaches have lost the "pristine" quality they once had due to beach buggy access and the amounts of rubbish, particularly plastic which is washing up. Glenda, from Bowen, said the beaches in her area are now greyer than they were due to coal dust and a "bit grottier" due to rubbish. In the extreme case, Damien Langley regularly saw rubbish blown in from the ocean piled on the northern Cape York beaches reaching more than a meter high.

Human impact on rivers ranged from removal of plants and animals to the addition of our wastes and chemicals from agriculture and industry. Brandon Walker is an Indigenous man of the Daintree and he describes how the Mossman River changes as a direct result from human activity.

It'll be good now, it's just been flushed but as soon as the mill starts again and all of that sewerage and everything comes back in, you notice that river just turns all green on the bottom. It's all dead. You don't see a real lot of fish.

[Brandon Walker, Cooya]

The population of Queensland is growing faster than any other state in Australia and most people are coming to settle on the coast. Coastal development was a stronger feature in some people's accounts than others. An often expressed sentiment describes towns and settlements being 'built up' with negative consequences- such as Oyster Point and Wonga Beach, although one man from Mission Beach was quick to note that some developments were being managed well.

Fish and fishing

In the present day over 1600 fish species, including sharks, rays and skates, are found on the Great Barrier Reef (Choat & Russell 2008). Fishing has been a central practice in the Great Barrier Reef region, as a way of subsistence, for commercial gain and for recreation. Many species of fish are targeted by commercial and recreational fishers, including coral trout, barramundi and mackerel. From the turn of last century the commercial and recreational fishing industries developed and expanded, reducing populations of many types of fish through over-fishing (Hughes, 2008).

Bounty

In the oral histories, many fishers throughout the Great Barrier Reef recalled times in the 1950s and 60s of bounties of fish of many different species (trout, bream, mullet and barramundi to name a few). The following stories illustrate observed changes in fish populations over time. For example, Ivan Garrod has fished all his life and he describes the thinking of those decades:

We thought that it was endless, whatever you'd caught, it was just going to be there every time you went out there.

[Ivan Garrod, Bowen]

The sense of abundance of fish was recalled with nostalgia by many of the interviewees. Gordon La Praik Sr. recalls a special morning in the 1960s when he was in Keppel Bay.

The tide was coming in, it was mid morning, we are just drifting with the current. This noise, sort of got louder and the next minute this school of fish turned up – red sweetlip – squillions of them. From as far out into the channel as you could see, right up to the reef edge, it took 10 minutes for them to swim by. You could hear them grunting or something. You could hardly see the bottom for them. Heading towards the island. Behind them were all these sharks, hundreds of those.

[Gordon La Praik, Emu Park]

John D'Urso of Innisfail remembers similar abundance of reef fish off shore from Innisfail at this same time:

In the 60s I'd have to beg the blokes, lets stop, because the fish have got to be cleaned. We would catch too many to handle.

[John D'Urso, Innisfail]

He contrasts this with present day catches:

Now it's common for a speed boat to go out with two or three guys on and they do not see the bag limit which is pretty miserable.

[John D'Urso, Innisfail]

Despite these bountiful populations of fish, species numbers and individual size have had a marked decrease over the last 40 years. Joe Linton simply says “It’s getting harder to catch a fish”. Patsy Lee, a local Gladstone woman notes that the bait fish don’t come into the harbour anymore. Other fishers from the Bundaberg region such as Robert Wood have also noted the disappearance of bait fish clouds.

Mike Prior is a retired commercial fisher who remembers fishing Trout Reef for the first time in the 1950s and catching 15 pound fish (or bigger) and filling his dory pit, but says he “never [caught] the same size and amount ever again”.

Joe Linton of Ayr says that people have depleted the fish supply within the inshore areas compared to 30 years ago, while Robert Wood has noticed that fish have been speared out around Bundaberg to 20 meters. A long time fisher from Mackay, Jim Edwards supports this by saying:

...you fish outside the reef now because you won't catch much in the lagoons at all because there's nothing left in there.

[Jim Edwards, Mackay]

Changes over time

The fishers and their level of activity have also changed over time. Decline in catch can partly be explained by noting that “changing some of the rules has meant that fisher have gone chasing different species” according to Ivan Garrod of Bowen. Peter Mulhall of Burnett Heads says a positive change has occurred as there “has been a lot of commercial guys getting out of the industry, not as many guys working the area”. Damien Langley of Wonga Beach supports this notion when he says there has been loss of fishing skills as fishers become more specialised. So even though fish populations may have shifted over time, fishing effort and methods have also changed which may skew the picture.

There are also recollections of improvements in fish stocks, perhaps indicating local recovery. Robert Wood, of Burnett Heads, says that there used to be runs of fish along the coast and he hadn’t seen small comebacks until recently. John Rumney, a diver from Port Douglas recalls:

You went from seeing 10 trout in a dive in the 1970s to no trout in a dive in the 1990s. Because of the green zones, we are already seeing many more coral trout. You started to see more in two years, but you definitely see more now. The fish are getting bigger now.

[John Rumney, Port Douglas]

Corals

In 1981 the United Nations Educational, Scientific and Cultural Organisation (UNESCO) listed the Great Barrier Reef as a World Heritage Area of "superlative natural phenomena containing formations of exceptional natural beauty [with] superlative examples of the most important ecosystems". (Bowen and Bowen, 2002 p.1). This listing is in large part due to the spectacular coral systems and reefs contained within the broader Great Barrier Reef Marine Park. There are over 400 species of hard coral and over 150 soft corals (Alderslade and Fabricius 2008) and Bowen and Bowen (2002) describe the coral reef as the "world's greatest living natural feature" [p.1].

In the oral histories collected for Reef Recollections, corals provided a focal point for discussions of ‘the Reef’. Many people saw coral condition and diversity as a proxy for the health of the reef. The crown-of-thorns starfish was the subject of widespread concern about the health of the Reef in the 1960s. Other disturbances that people identified that impacted on the

Reef, such as crown-of-thorns starfish, flood plumes, storms, or anchor damage, were recognised as being relatively localised.

Changes in coral

People reported that inshore coral communities had declined along much of the northern Queensland coast, but there were stories too of regeneration and resilience.

Gordon LaPraik, an avid amateur diver from the Keppels area, noted that in the 1950s Maisey Bay had an area of staghorn corals “that filled the curve of the bay”. But suddenly in 1956 or 57, the same area was dead and moss covered. Mike Prior, another commercial fisher from the same area, reported that in the 50s Snake Reef was “all murky and dead looking with weedy sort of stuff growing all over it”. Gordon did say however, that after 20 years “it was all back again, just as luxuriant as it had been before”.

Two locals from the central region equally recall how devastating Cyclone Fiona was in 1970. Annette Whitney remembers that “half the ocean floor was washed up on Sarina beach,” while John Smith said:

The reef was picked up and thrown back on top of the reef and all that section died. You get bleaching and it's all white but it comes back.

[John Smith, Bowen]

In the northern region at Cape Upstart, Joe Linton describes where there are three to four year periods of dry weather, the corals grow quite quickly, but then in a flood event (such as 2008) they will all die. He qualifies this by saying that it all comes back again quickly however. George Betteridge remembers that:

...in 1940 we had two extreme cyclones within two weeks and they smashed everything. Previous to this on the inside of the Cape Upstart where the reef was, you could go and catch red emperor, coral trout, everything in plenty.

[George Betteridge, Ayr]

He says although it's taken over 50 years, there are beautiful clumps of coral now and despite the run-off from the Burdekin River flowing south into the area, “the reef is flourishing”.

Moving further North, Tony Lee says that in the 1970s the reef was “very colourful, prolific, full of fish” in the Mission Beach area. Bruce Shepherd, a local of Mission Beach, reminisces:

There was a spot around towards Bingil Bay where you could sit in the water with your diving goggles on and if you were half under and half above, the bottom half you were looking at the coral and the top half you were looking at rainforest. There's not too many places in the world you can do that. That was right on the beach. Now it's all gone, there's no coral there at all.

[Bruce Shepherd, Mission Beach]

The story from the far northern region is not nearly so grim. John D'Urso from Innisfail saw that after “the coral got knocked off by the crown-of-thorns” there was an initial resurgence of soft corals and then years later the hard corals took over. Frank Cooper of Port Douglas recalls Cape Tribulation being “the most beautiful beach” in the 1970s and:

...you could actually walk out on sand next to the coral and then oh I'll go have a look at the corals then just sort of swim over the coral with your snorkel and it was just there and it was all coloured which is lovely; it was beautiful.

[Frank Cooper, Port Douglas]

Lionel Bevis worked the length of the Great Barrier Reef for many years. When speaking of the outer reefs in the 1950s he recollects:

It was the colour that got me, the range of colour, everything was sort of pristine. You had none of that broken dead coral you see now. Like it had never been touched.

[Lionel Bevis, Yeppoon]

He says now, many of the inshore areas have been degraded by the number of visitors and boats at low tides and that “people think they’re going to the Barrier Reef but in fact it’s not the real reef at all. The real reef is further out.”

There will always be some people who see the demise of the Great Barrier Reef as imminent. Most of those who hold out little hope for the Reef’s future stated reasons of degradation as abstract notions of global warming, or other inexplicable factors. The other major perceived threat to corals to emerge was tourism, the effects of boats and tourists.

Resilience

Others, who commented on the longevity of the Reef, noted that it is a resilient system which recovers from most disturbances. This belief was held regardless of region. Lyle Squire is the owner of Cairns’ biggest commercial aquarium supplies business, the only Australian company supplying large marine animals for public aquariums around the world. He says “the resilience of the reef, it’s absolutely amazing, you know. I’ve seen cyclones, crown-of-thorns, bleaching and it’s all, in five years’ time, you don’t see where it’s been.” And Michael Hackett of Sarina supports that saying:

... the reef dies, it’s a living organism and okay it lives, it dies and then it regenerates.

[Michael Hackett, Sarina]

Changes in species

The Great Barrier Reef is one of the world’s best known natural systems. It has an extraordinary diversity of plant and animal life including 1 600 species of fish, 400 types of hard coral, one-third of the world’s soft corals, over 5 000 species of molluscs and thousands of different sponges, worms and crustaceans; six of the world’s seven species of marine turtle, more than 30 species of marine mammals including dugongs and over 600 species of echinoderms (starfish, sea urchins) and 22 bird species (Hutchings, Kingsford & Hoegh-Guldberg 2008; Lucas, Webb, Valentine et al. 1997; Pitcher, Austin, Burridge et al. 2008).

Many species are important to local residents around the Great Barrier Reef Marine Park . This can be for a range of reasons: a primary source of food, such as a fish or a crab, a threat to livelihood such as a shark or the crown-of-thorns starfish, a way of passing the time in recreation and collection, such as shells or game fish, or because they inspire awe when a sighting of a creature is made, such as a whale, a dugong or even a tiny nudibranch.

In this section, we were interested in exploring people’s knowledge of the changes in populations of these species. In particular, we wanted to develop an understanding of whether the populations have remained stable or have changed, shifted, increased or decreased. In addition, we have included significant stories where they give us information about the species, such as a quote that captures the essence of a number of people’s views about that species at a particular time.

Some species were more closely observed by people than others and these species often had several people who described things in similar ways. The species that were selected include the charismatic macrofauna (whales, Maori wrasse and groper, dugong, sharks and turtles). Species

that were or are important commercially are included (mackerel, prawns, crabs, coral trout and red emperor, clams, trochus). Some of these species such as prawns, crabs and coral trout, were also important for recreational fishers. Species that are of particular recreational interest are included, such as shells. Lastly, a discussion of the changes over time of species on the Great Barrier Reef would not be complete without an assessment of the impacts of the crown-of-thorns starfish on the Reef.

Other species are very important in parts of the Great Barrier Reef Marine Park and surrounding areas, but were not the subject of enough stories to include. Dolphins and crocodiles and sports fishing species were not included as they did not feature strongly enough in more than a small number of people's recollections.

Whales

Whaling in Australia commenced in the 1820s to the 1830s (Department of Environment, Water, Heritage and the Arts, 2007). Whale meat was prepared for overseas markets, while blubber was used as oil for lamp fuel, lubricants, candles and as a base for perfumes and soaps. Whale bone was used to provide structure to corsets, for umbrellas and whips and other items (Department of Environment, Water, Heritage and the Arts, 2007).

The increased technology of harpoons and steam-driven whaling boats made commercial whaling highly efficient by the 1880s and 1890s. This over-exploited the populations of whales to such an extent that laws were implemented to protect several species of whales. While humpback whales were protected in 1965, commercial whaling of sperm whales did not finish until 1978, when the whaling industry ended (DEWHA 2007). In Queensland, the humpback whale population is recovering from the large-scale, industrialised whaling activities that occurred early last century (Noad, Dunlop, Cato et al. 2008).

Two species of whales, the humpback and the dwarf minke, are commonly seen during the winter in the Great Barrier Reef Marine Park (Marsh & Corkeron 1997). Bryde's whales, false killer whales, killer whales, short-finned pilot whales, sperm whales and the rarest whale in the world, Longman's beaked whale, have also been seen.

In the oral histories collected for the Reef Recollections project, an analysis of people's stories confirmed that whale numbers changed substantially over time. In the 1940s and 1950s, when Don Duffy was a commercial fisher near Cardwell, he noted that in North East Bay there were "whales everywhere". In a year, he said, he would see "thousands of whales" in the winter months, as far north as Fitzroy Island off Cairns, travelling north. Around mid-August, he would see them heading back the other way. According to Don, they started to decrease in numbers in the 1960s. Many others saw whales during their time at sea, often as commercial fishers.

Lionel Bevis worked on Tangalooma whaling station during the 1960s outside of Brisbane. While this is outside the Great Barrier Reef Marine Park, the whaling activity that occurred in this area impacted on the numbers of whales in the Marine Park because they migrate along the coast and beyond. He reported that a whaling boat would bring six to 10 whales a day into Tangalooma jetty, depending on their size. Lionel noted that Australia-wide there was a quota of 2 000 whales, which was divided up amongst the whaling stations. His quota was 600 whales per season.

Lionel's approach to whaling shifted substantially in recent times, but describes the attitude at the time:

It was like going out and shooting the last elephant. Why would you, if you knew, but we didn't. It was the times we lived in. You see, most of this happened just after World War II. We had just killed 60 million people using everything from gas chambers to atomic bombs. What's a couple of hundred whales, you know?

[Lionel Bevis, Yeppoon]

After the 1960s, relatively few whales were reported by respondents. However, the sightings have started to increase in recent times. Dave Nissen noted that he saw three killer whales in the 20 years since the 1980s around the Innisfail area. Cairns-based Jennifer Mondora noted that out from Russell Heads (northern Great Barrier Reef) in the 1990s she saw five whales at once and also saw several small snub nosed whales. Robert Wood, based in Bundaberg, said that in the 1980s he never saw whales and now he sees thousands of them around Fraser Island and Agnes Waters. He believes that now the whale populations are so numerous that the whales are "out of proportion" and estimated that the population has increased tenfold in the last five years.

Wrasse/groper

Maori wrasse, potato cod and the Queensland (or "giant") groper are some of the largest fish in the Marine Park. The hump-headed Maori wrasse is commonly over 45kg and some have been recorded at almost 200kg (Randall, Allen & Steene, 1997). They feed on a wide variety of fish, sea urchins, crustaceans and worms found within dead coral (Randall et al. 1997). While the hump-headed Maori wrasse is well known for its brightly coloured markings, the Queensland groper and the closely related potato cod range in colour from grey-brown to dark brown and can be similar in appearance (Randall et al. 1997). The potato cod can reach two metres in length and 100kg and is bold, happy to approach divers (Randall et al. 1997). The Queensland groper can be up to 2.7 metres in length and over 400kg. It loves to eat spiny lobsters and has little fear of humans (Randall et al. 1997).



Damien Langley and a hump-headed Maori wrasse, 1980s

As a result of their similarities in appearance and behaviour, the potato cod in the past has been commonly mistaken for groper. Thus, the stories provided in this section refer to groper but some may relate to potato cod.

In the 1960s there used to be "dozens and dozens" of gropers out near Townsville, according to Jim Edwards, a commercial fisher now living in Mackay. While he noticed that sharks seemed to be scared of them, Jim said that they were caught in large numbers by the tourist boats "just to say I got the biggest fish". He thought it was a "bloody waste" because:

[The tourists would] let him hang up there til he's dead then just drop him over the side. Something that's gone three or four hundred years old.

[Jim Edwards, Mackay]

There have always been big groper around the jetty in Bowen, according to Glenda. In the 1970s a groper was caught and she said that her father and some other fisher mates were filleting it up so they could raffle the meat off. The groper was so large, they took about a kilo of meat from each of its cheeks.

Jim Edwards noted that Maori wrasse numbers are increasing now that they are not being caught: since the 1960s, they are “half way back” to the numbers he saw in the early days. However, even in the 1980s they were being fished: Lyle Squire was spearfishing in the 1980s and recalls a long shallow wall of reef where he ended up taking six Maori wrasse.

Damien Langley described a time in the 1980s when he and a groper had developed a working relationship: the groper loved crayfish, he said, so it would suck them out of his hands as he caught them while diving. After a while, the groper would recognise the sound of Damien’s fishing boat and wait underneath it until Damien jumped into the water. The groper would lead Damien to the crays and Damien would catch several and feed every fourth crayfish to the groper. The groper would then take Damien to the next cache of crays and so on. He said that he had developed the reputation of being one of the best crayfish divers, but he attributes this entirely to the intelligence (and the hunger) of the groper.

Sharks

There have been 134 species of sharks and rays recorded in the Great Barrier Reef Marine Park (Chin & Kyne 2007). Sharks have been a target and a by-product of fishing activities (GBRPMA 2006) and inhabit a wide variety of habitats. While few of the sharks actively attack humans (mainly whaler sharks such as the tiger, silvertip and bull shark) (Randall et al. 1997), many are attracted by fishers and boats as a potential source of food (Grant 2008). Sharks range in size from less than half a metre to over 15 metres.

Sharks are valued in the commercial fishery industry, historically through the shark oil industry and more recently for their meat and the shark fin trade. Sharks can also be part of trawler by-catch, where the target species is something other than a shark.

In the Reef Recollections oral histories, sharks were considered by many fishers as the bane of commercial and recreational fishing. Ivan Garrod grew up around Bowen and describes the problem:

...you’re down there and get this nice fish and you pull it in and all of a sudden there’s nothing – the shark’s taken everything except the head.

[Ivan Garrod, Bowen]

Some people reported that they would stop fishing in the months that the sharks are most prevalent because they would lose so many of the fish they caught to sharks. A common solution ever since the 1950s was to shoot the sharks or deter them in other ways, such as “feeding them hooks”: fishing specifically to catch the sharks, then cutting the line so that the shark had the hook or hooks still attached to them. After “a couple of boxes” of hooks, the sharks learned to avoid the baited hooks and the boats where this activity was taking place.

Brian Atherton, a commercial fisher and trawler out of Sarina, has found that shark numbers are increasing. He noted that some days you can't get a fish past the sharks:

Once upon a time you could catch a few sharks, they'd bother you, whack them with the donger or shoot them, then let them go and they'd be gone. You do that these days and there are so many more come in its not even funny. tiger sharks, grey nurse sharks, any sort of shark.

[Brian Atherton, Sarina]

Coral trout fisher and local Councillor Mike Prior said that in the 1950s he would spend the morning at a new reef in the Swains:

... working around the edge of the reef killing sharks, trying to get fish past them.

[Michael Prior, Yeppoon]

In the 1960s, Jim Edwards used to fish off Townsville and couldn't fish the outside of the reefs because the sharks were too bad, moving in and following them around the reef. He saw "hundreds of tiger sharks" and shot them because they were "a bloody nuisance".

Likewise, the problem remained in the 1970s. Gwen Beitzel was a commercial fisher around Wonga Beach, north of Port Douglas at that time and said:

Occasionally when the sharks would be really bad and they couldn't get enough fish, the fishermen would get together and someone would bring over a small grey mackerel and they'd put carbide in it and they'd throw it over, the shark would take that instead of their bait. But that was fairly rare. And sometimes they'd put a big hook with a mackerel in it and throw it over attached to a drum and the whole drum would go off... we saw this shark on it, bobbing up and down.

[Gwen Beitzel, Wonga Beach]

Stories provided to us mainly saw sharks as an inconvenience because they were a by-catch of another target species or because they ate the fish that they caught recreationally or commercially. The few stories that related to positive experiences tended to focus on hammerhead sharks. Ivan Garrod describes having seen "plenty of hammerheads" during his fishing years and:

You'd chuck something out for him, some bait or something. Then he'd come back and he'd bump the back of the boat. He's just being friendly.

[Ivan Garrod, Bowen]

Alan Cochrane, the founder of the Cochrane Artificial Reef outside Bundaberg, describes "the biggest hammerhead I've ever seen" in the 1980s:

... the fin sticking out of the water was a bit less than a metre, heads on them the length of a table. Tiger sharks that looked like two or three 200 litre drums strapped together with a tail and fishy-looking eyes.

[Alan Cochrane, Bundaberg]



Alan Cochrane

While there were several stories about how many sharks there were in the 1960s, 1970s and 1980s, particularly from commercial fishers who found them to be a nuisance, few anecdotes discuss the numbers of them in the present day. It is possible this is because there are fewer sharks or because the local residents have not been fishing in the same way in recent times to observe the presence or absence of sharks.

Turtles

The Great Barrier Reef is one of the remaining havens for marine turtles in the world. Of the world's seven species of marine turtles, six are found in the waters of the Great Barrier Reef: namely the green, hawksbill, loggerhead, flatback, olive ridley and leatherback turtles (Limpus 2009).

Turtle meat and eggs continue to be an important traditional element of the diet of Australia's Indigenous peoples, particularly for celebrations and family gatherings. However, in the past they have been prized for meat, fat and shell and were exploited commercially until the middle of last century (Limpus et al., 2003; Daly, Griggs & Marsh, 2008).

While it is difficult to obtain exact data about actual numbers of turtles in the Marine Park, data shows that the population of green turtles in the southern Great Barrier Reef (Chaloupka et al., 2007) and nesting loggerheads (Limpus 2009) are increasing. Populations of flatback turtles are stable (Limpus et al., 2002) while hawksbills are in decline (Limpus and Miller 2008). There also appears to be indications that the population of green turtles that nest on Raine Island, the largest green turtle rookery in the world, are also declining (Limpus et al., 2003). All six marine turtle species are listed as endangered (leatherback, loggerhead, olive ridley) or vulnerable (green, hawksbill, flatback) under the Australian *Environment Protection and Biodiversity Conservation Act 1999*.

(www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=fauna)

In the Reef Recollection stories, people did not comment about whether the numbers of turtles had changed over time. However, the value placed on the turtle as a food source was seen as very important. Neville Robertson-Hughes is a recreational fisher living in Gladstone. He has researched the turtle industry for his local museum. He describes the early stages of the turtle industry in Australia.

The first British expedition for research to the reef occurred in 1922 and they'd hunted turtles here in the 1880s but it was never a real business and it wasn't until the 1920s that suddenly people developed a taste for turtle meat. They established a turtle processing factory on North West Island and they used islanders to catch the turtles and they'd bring them back, render them down and make this soup.

[Neville Robertson-Hughes, Gladstone]

In the 1950s, turtles were seen as a staple part of the diet of Torres Strait Islanders who had a number of important uses of the turtle including for food. Neil Tabo is a Murray Islander who worked on trochus boats collecting trochus shells during the 50s. He describes the way they prepared turtle meat:

Well you put him like this [upside down] and just cut him. All the meat and the guts, we eat the guts too, just clean it all nice. All the meat, fat, everything, we eat it.

[Neil Tabo, Ayr]

Dugongs

Dugongs (or sea cows) are marine mammals that feed on seagrasses. They inhabit shallow, tropical waters throughout the Indo-Pacific region with most of the world's population of dugongs found in northern Australia. Dugongs have a very low reproductive rate having one calf every three or more years (Marsh, 1995). Populations of dugong have been declining rapidly due to loss of seagrass habitat, unsustainable traditional hunting and incidental mortality through commercial gill nets, shark nets used to protect bathers and, in more populated areas, boat strike (Marsh et al., 2005; Daly, Griggs & Marsh, 2008; Greenland and Limpus, 2008). They are now considered to be vulnerable to becoming extinct (Lucas, Webb, Valentine et al. 1997).

In the Reef Recollections oral histories, Neville Robertson-Hughes noted that dugong, in the 1870s onwards, were harvested in their thousands. He said that the skin was used for brake pads for carts and the dugong oil was valuable. He believed that eventually the business wasn't worth continuing due to the massive reduction in dugong numbers.

Participants could recall their interactions with and sightings of, dugongs as far back as the 1940s. Blair and Laura Scott, in Ayr, recall the time that Laura's mother was fishing out on a rock when a dugong came in close to the rocks of the coast and blew close to her. Don Duffy recalls that in the 1940s when he was fishing:

[in] Missionary Bay you could see schools of 70 and 80 dugong. Over at Gould, the schools weren't so big because there's not the great area like in Missionary Bay, but you saw schools of 10 and 12, quite often through the day you'd see five or six times 10, 12 dugongs.

[Don Duffy, Cardwell]

Cecil (Cocky) Watkins, a commercial fisher living in Cardwell, said that he could notice the decline in dugongs around the mid 1950s, judging from what he could see from his fishing boat. By the 1970s, Brian Atherton noted that, when trawling around Armstrong Reef, he used to see a few dugong but not many.

In the north, the declines in dugong populations relate in some measure to traditional use. Judy Norman, a former crocodile hunter and chef on a range of seafaring vessels, lives in Cooktown. She noted that:

There's always been a lot of dugong in Ninian Bay, feeding on the eel grass, but now we've got an Aboriginal camp up there and there's no more dugong.

[Judy Norman, Cooktown]

Bennett Walker, a Traditional Owner from the Daintree and one of his sons, Linc, describe what has happened in Cooya, north of Port Douglas:

In the 1980s there would've been 20 dugongs in close. Up to now, 2007, we noticed the numbers decreasing pretty bad even during this time because we were checking dugong and turtle numbers. There are still a few dugong hanging around. You'll see all the tracks through the seagrass.

[Bennett Walker, Cooya]

We're having trouble with people over-hunting the dugong – we are finding carcasses piled up and people coming taking three, four turtle at a time and lots of dugong...got a moratorium 15 years on dugong hunting and if anyone catches one in the net, we share it among everyone.

[Linc Walker, Cooya]

While the stories from the north are quite concerning in terms of numbers of dugong, stories from people from Cardwell suggest that these numbers are increasing again in that area. Margaret Thorsborne is an environmentalist with a long relationship with the Brook Islands. She said that the seagrasses around the Brook Islands are important for the dugongs and she has seen them since the 1990s and out the front of Cardwell sometimes even now. Keith Williams, a property developer has been developing the Port Hinchinbrook resort project one kilometre south of Cardwell since 1993. He has taken a keen interest in dugong numbers:

When I started, the greenies were saying we're going to kill every dugong. Our boats were going to kill the lot. Now in the last 49 years there hasn't been one [dugong killed] through a boat strike. Not one. But the netting, they caught a lot.

[Keith Williams, Port Hinchinbrook]

Mackerel

Mackerel is one of the most important fish species for the commercial and recreational fishing industries. There are five main types of mackerel caught in the Marine Park: grey mackerel, school mackerel (or doggy mackerel), spotted mackerel, shark mackerel and Spanish mackerel.



These mackerels are pelagic predators. This means that they are open-ocean fish that move between and around reefs shoals and headlands. They prey on other pelagic fish and reef fish.

They are also known to come together, or "aggregate," to spawn. The largest mackerel found on the Reef, the Spanish mackerel, grows to 2.3 metres and up to 40 kilograms (Randall et al. 1997). It is a species prized by commercial and recreational fishers. The Spanish mackerel is historically known to aggregate to spawn north of Townsville each year, which is the main fishing area for this species (Welch, Hoyle, McPherson and Gribble, 2002).

The Reef Recollections oral histories recalled that in the early decades, mackerel was plentiful. Don Duffy described a time when he saw "four or five acres of them" in the Cardwell area in the 1940s-50s, averaging nine pound, all lying on top of the water for two days, not biting and then after that, "they just go mad". Before Don finished mackerel fishing in 1961, he described his catch:

On my own I got 22 600 one year and 22 800 the next year. Ninety per cent of my fish would have been mackerel.

[Don Duffy, Cardwell]

In Cardwell in the 1950s there were around six or eight commercial fishers, according to John D'Urso and they fished only for mackerel for the fish and chip industry. Moving southward, Geoff Breslin described recreational fishing in Gladstone for doggy mackerel:

You drive a cast net, circle them and the doggy mackerel couldn't move because they were shoulder to shoulder. You'd catch a doggy mackerel with four or five underneath trying to get that bait. That's how thick they used to be. We caught 40 in about an hour and a half to two hours.

[Geoff Breslin, Gladstone]

In the 1960s, Jim Edwards recalls that “mackerel was the only thing people were interested in.” Cocky Watkins recalls fishing for mackerel at Eva Island and other places in the 1960s and seeing a spectacular sight:

The mackerel used to jump in the mackerel season – they would jump into the air about 15 feet, maybe up to 80 and 90 in the air at once. By 1969 when I finished mackerel fishing a few would jump but hardly any.

[Cocky Watkins, Cardwell]

This story suggests that the behaviour of the fish changed, if not the actual numbers of them. Certainly the patterns of what fish were caught was different towards the end of the 1960s through to the 1980s, according to some people. Gwen Beitzel describes this change in practices and decrease in number of fish:

...[In] September the grey mackerel would go somewhere else and the Spanish were there thicker in September. And then they'd ease off and you'd start going to the Reef in the summer, fishing for trout. So this is the big cry that's on with the fishermen now. They just can't get the mackerel any more. And the locals who go there for a feed are flat out getting enough mackerel, where they were so thick.

[Gwen Beitzel, Wonga Beach]

Likewise, John Rumney, a diver and commercial fisher in the 1970s who now lives in Port Douglas, described how he had to get up before dawn and troll for mackerel around the reef edges, then catch some coral trout and then process the fish. He recalls:

...we would catch bait and hang out and take a break and then in the evening, you would go mackerel trolling again.

[John Rumney, Port Douglas]

Damien Langley would troll for Spanish mackerel in the far northern part of the Marine Park and take between four and five tonnes of fillets every week “just over and over and over” in the 1980s.

Recreational fishing of mackerel was a good way to provide food for the fishers and their friends and family, but sometimes people got carried away by the number of fish they could catch. Bruce Shepherd describes the events outside Mission Beach:

The best we ever did was very early in the season [in the 1980s], we got 93 mackerel. That filled up the esky and then we fished again with our daughter the next day. We got 150 fish for the two days. Workplace Health and Safety has been getting tighter. Before that, a lot of mackerel was dumped [in the 1990s] – tourists love catching fish and they give fish to everybody, but you can only do that for a couple of days and then the park's full of fish. They carry on and get 20 fish for the day and nobody wanted them so they took them to the dump.

[Bruce Sheperd, Mission Beach]

In the last decade the restrictions on the netting of mackerel led to the emergence of “heaps and heaps” of mackerel in Bowen most seasons, according to Ivan Garrod. Further north, Brian Fogarty noted that he used to catch three tonne of mackerel and three tonne of coral trout and that:

Mackerel have started to pick up in the last couple of years as a result of quotas and stuff.

[Brian Fogarty, Cooktown]

Prawns

King, endeavour, banana, tiger, greasy, bay prawns (glassies), school prawns and coral prawns are caught in the Marine Park. Tiger and endeavour prawn fishing is the largest sector of the commercial prawn industry in the Great Barrier Reef Marine Park (Queensland Department of Primary Industries and Fisheries, July 2009). It is conducted mainly between Cape York and Cape Conway in the lagoonal areas of the Great Barrier Reef Marine Park. The northern king prawn fishery occurs mainly in waters north of Shoalwater Bay and operates inshore. Banana prawns are caught in shallow inshore areas next to major estuaries (Queensland Department of Primary Industries and Fisheries, July 2009).

Over recent years (particularly from 2004 to 2006) prawn catches in and around the Great Barrier Reef Marine Park have reduced substantially due to a range of factors including rezoning of the Marine Park, increased fuel prices and competition from imported prawn stocks (Australian Government Department of the Environment and Water Resources 2007). Overfishing combined with these things meant that the trawl industry was not sustainable. The Commonwealth and State Governments implemented a buy-back scheme for trawler licences and, as a result, the number of vessels fishing the Great Barrier Reef Marine Park has reduced significantly from its peak in the early 1980s, when some 1400 operators were licensed to fish. There are about 400 trawlers operating in the Marine Park at present (Australian Government Department of the Environment and Water Resources 2007).

In the Reef Recollections oral histories, it is clear that catching prawns is a popular recreational fishing activity and also forms a big commercial industry. Michael Hackett, a farmer from Sarina, noted that in the 70s, ten days after a flood, you could see a line along the coast that looked like “red lead paint” because there were so many prawns. Gwen Beitzel said that “the waves would turn pink” with glassy prawns around Wonga Beach in prawning season. Bennett Walker and his sons said that, a couple of days after the rains they fill up their buckets with fresh prawns.

According to the stories provided for Reef Recollections, the prawn trawl industry established itself in earnest in the late 1960s. In the early days there were some teething problems, as Judy Norman describes:

Up in Karumba when the trawlers first started they were bringing loads and loads of prawns ashore and they couldn't process them. They dumped them. There might be 20 tonnes of prawns there and they just dumped them.

[Judy Norman, Cooktown]

Alan Cochrane and Geoff Breslin both recall trawlers being tied up at O'Connell Wharf in Gladstone in the 1960s, where the prawns would be unloaded onto the jetty and the townsfolk would buy prawns straight off the wharf. In the same area, according to Lionel Bevis, one entrepreneur decided to buy a very large Vanderbilt yacht called the *Rican Star* as a mother ship to the trawlers around Tin Can Bay and Bundaberg to create a bigger scale industry in the southern part of the Great Barrier Reef. Lionel reported that this did not work so well because the prawn fishers were not consulted and they “would rather go home of a night.” Lionel describes the catch in the 1960s in the Gulf of Carpentaria:

The catch was such that they used to have to lash two boats alongside to bring them over the side. It was pure prawn. You'd run your net and get two tonne of prawns. But the Russians sent one of their big factory ships out there and they cleaned up all the prawns that season and there were shots fired. The Aussies are out there in their little rowboats, their 40-50 footers.

[Lionel Bevis, Yeppoon]

George Betteridge, who lives in Ayr and has been a trawler operator for many years, decided to get out of prawn trawling when:

These big boys came through, trawlers with two 15 fathom nets out. It's dog eat dog out there, a rugged game that trawler business, especially banana prawn trawlers. You had to be on the ball all the time.

[George Betteridge, Ayr]

Cocky Watkins also had a prawn trawler in the Gulf of Carpentaria for four years until 1974. He got out of the industry when he realised the prawning in the Gulf was “not so good” and when the industry started to boom further south. As the boom took hold, Cocky sold his boat at a large profit:

If you had a bathtub and you hung a bit of prawning net off it in those days you could sell it for a million dollars.

[Cocky Watkins, Cardwell]

He reflects on the impact of the prawn trawlers on the environment:

I honestly think we did a lot of damage to different things – raking the bottom up and stirring stuff.

[Cocky Watkins, Cardwell]

Ivan Garrod trawled for prawns from Middle Island to Gloucester and back. The impact of the prawning on the environment became evident to him as well:

I can remember last time I went in the bay, trawl for an hour and it'd take you two hours to get the blanket weed out of your net. You wouldn't get too many [tiger] prawns.

[Ivan Garrod, Bowen]

Terry Must has been fishing all his life. From working as a trawler deck hand, he has moved into wholesale and retail fish distribution, including selling fuel and other supplies to the trawlers based in Bowen. He is concerned about the decrease in prawn stocks in his area and attributes the problem to nearby aquaculture facilities:

Something's happened to the tiger prawns in this district. We might do half a million litres of fuel in two months in the busiest period when the trawlers are here. Last year, we were down to about 20 000 litres in that two months. You've got a prawn farm to the south and a fish farm to the north. There's no prawns in between.

[Terry Must, Bowen]

Crabs

Commercial and recreational crab fisheries in the Great Barrier Reef Marine Park use crab pots and dillies to target three types of crab: blue swimmer crab, mud crab and spanner crab. The mud crab fishery operates mainly in inter tidal areas alongside the Marine Park. The blue swimmer crab and spanner crab fisheries mostly operate in offshore areas south of the Marine Park and are not significant commercial fishing species in the Marine Park (Queensland Department of Primary Industries and Fisheries, 2008).

In the Reef Recollections oral histories, many people had stories of crabbing. The 1940s were “good crabbing days,” according to Bruce Shepherd. Michael Hackett agreed and noted that the size of the crabs was very large in those days. Judy Norman described the sheer number of crabs around the Boyne River around the middle of last century:

At the mouth of the Boyne River we used to go down there and fish and you'd see the mud crabs. They go out to sea. You'd see a shoal of mud crabs coming in up the river, the river would be full of mud crabs, thousands of them coming back up the river.

[Judy Norman, Cooktown]

Others' recollections centred on the 1970s: Neville Robertson-Hughes' father-in-law would go crabbing and bring back “at least half a dozen”, while Glenda's father used to take his children sand crabbing out at Gordon Beach with their own spears and buckets.

People seemed to recall relatively clearly the decade in which they went crabbing for recreation, while their stories of commercial crabbing are less specific. These, also, are tinged with the recognition that there are far fewer crabs now. Some people attributed this decrease to the commercial fishing, such as Ivan Garrod:

You can go up the creek and you're crabbing. You're getting a few crabs. Then all of a sudden the pros come in and they put 80 pots in or something and there's no crabs there for you to get.

[Ivan Garrod, Bowen]

Certainly Don Duffy noted that full time fishers go crabbing if the weather isn't good for mackerel fishing, while Terry Must describes the stocks that he has of mud crabs:

At the moment, this time of year we're doing mud crabs. We might have 1000 mud crabs in the tank there. You can't target mud crabs all year round and make a living. A fisherman might target bait and mud crabs and barramundi. When you can't make a living out of that, he's got to move onto the next part of the fishery.

[Terry Must, Bowen]

Others believe the reason for the short availability of crabs is the lack of understanding by recreational crabbers about size limits and restrictions on taking female ‘jennies’. Patsy Lee shuddered as she recalled a time she discovered some people eating tiny crab claws:

I was a cleaner at the high school and these kids were eating crabs. The kids say “oh my father catches crabs, he breaks the claws off and throws the bodies back.” And I said “Hang on a minute, you're old enough to understand. How is the crab going to eat? Because they pick the food up with their claws...”. And they were only little crab claws, ridiculous. And that's why there's no damn crabs.

[Patsy Lee, Gladstone]

Bennett Walker and his son Brandon are concerned about the health of the ecosystem and, in particular, the crabs: they noted that you can see, in the mangroves around Cooya, “foamy looking stuff coming out of the mangroves” due to runoff from fertiliser and then note that they have had crabs from those mangroves that were deformed: while still alive, they smelled “funny, soft, sort of off-smelling”. Brandon reflects also on the size of the crabs he finds now:

How trim that is compared to the old feller’s [grandfather’s] crabs.

[Brandon Walker, Cooya]

While numbers of the commercially targeted crab species have declined, according to the recollections provided, Annette Whitney noted that “a couple of years ago” there were “all sorts of marine crabs on the coast,” mainly talking about hermit and soldier crabs. She described in detail the cycles of marine life and how they ebb and flow with various weather patterns. According to Annette, we are in a natural cycle and we can expect to see increases in crabs and other crustaceans at some point in the future.

Emperors, snappers and coral trout

There are seven species of coral trout on the Reef, with common coral trout being, rather unsurprisingly, the most common (Randall et al. 1997). Coral trout are highly valuable in the commercial fish market, especially for the live fish trade (Queensland Department of Primary Industries and Fisheries, April 2008). The red throat emperor or sweetlip is a reef fish that is sought after by the commercial fishing trade within the Marine Park. Red emperor is also highly targeted and is actually a tropical snapper, not an emperor. (Randall 2005). Coral trout are prized by recreational fishers because of their colouring and the quality of their flesh.

In the Reef Recollections oral histories, there was a strong historical connection made between residents and fishers along the Queensland coast and these species. Many commercial fishers told stories of fishing both species in conjunction, recognising that they were quite different in terms of where they could be found and the style of fishing required to catch them. Frank Cooper fished for these species off the coast of Port Douglas in the 1970s and encapsulates the skills required of a small-scale commercial fisher thus:

The way you fish for coral trout and the way you fish for red emperor are very, very different because coral trout are very territorial. Then you get other fish like red emperor, they actually are not close to the coral reefs, they’re in the big paddocks between the reefs and they actually graze like sheep over the bottom of the ocean and they stop on these patches of rubble that they find here and there to feed on the fish and then they’ll move on again.

[Frank Cooper, Port Douglas]

Throughout the Great Barrier Reef Marine Park and in all the stories people recalled from the 1940s through to the 1980s, there was no indication of the availability of coral trout and red emperor being limited. George Betteridge noted that before two cyclones hit in close succession:

On the inside of Cape Upstart where the reef was, you could go and catch red emperor, coral trout, everything in plenty. I had a fishing cord line thing and I wore the damn thing out in about two days.

[George Betteridge, Ayr]

However, things changed around the 1980s. Robert Wood noted that in the 1980s, spearfishers used to take 20 or 30 good-sized coral trout and “that’s not possible any more”.

Professional diver and aquarium fish fisher Lyle Squire recalled a spectacular sight he noted in the past couple of years at a coral trout aggregation site:

You go out there just before dusk and all the female trout are sitting in the caves. All the females come out of the holes at dark and it looks like an avalanche of trout coming out of the walls because there are so many of them. Three hundred trout appear and come down the wall.

[Lyle Squire, Cairns]

Shells

In coral environments like the Great Barrier Reef, there are around 3000 species of molluscs and shells. They vary in size from the tiny "micromolluscs" and nudibranchs that are less than one millimetre long, to the giant clams that can be up to a metre long. They exist in all habitats in the Great Barrier Reef and for countless years, humans have collected molluscs for food, trade and decoration (Willan, 2008). Commercial shell collectors harvest from a broad range of molluscs. These are collected by commercial and recreational fishers for the purpose of display, collection, classification, research or sale. Shells are also collected by Indigenous people for food, artwork and tools. While there are strict limits on the number and type of shells a recreational collector can take from the Marine Park, there is a common belief that it is banned (Willan, 2008).



Shell collecting, Damien Langley's collection

In the histories collected for Reef Recollections, the shells found on the Great Barrier Reef were extremely popular with shell collectors and, for some species, commercial fishers. Trochus shells and clam shells were highly sought after commercially and these species are considered separately below. Likewise, pearl shell was among the most valuable fisheries in the nineteenth and much of the twentieth centuries. For shells without such a commercial focus, the approach to shell collecting has changed markedly over the years. Ena Coucom is well known in the Yeppoon area and beyond for her extensive collection of shells and for the development of Shell World, based in Yeppoon, which houses some of her collection. She has been interested in shells since the 1940s. Ena encapsulates the early shell collecting experience:

In the 1960s we started to go to Middle Island and it was just magic, the shells we'd never seen before were there ... We'd take one of these and one of these. We just picked out the nice ones and took them back to camp.

[Ena Coucom, Yeppoon]

There were many trips out to the Reef for the purposes of shell collecting: a number of residents mentioned they had provided, or taken part in, a shell collecting charter trip in the Marine Park. The shell collectors could be classified as either tourists, who collected the shells because they were on a tourist trip and picked up the things that looked pretty or interesting, or collectors.

Annette Whitney describes the approach she had when it came to choosing to pick up a particular shell:

If I didn't have it in my collection I'd take it, but if I had it I wouldn't bother.

[Annette Whitney, Sarina]

They believed that they were doing a service by classifying shells and sometimes identifying new species. Annette again:

If we didn't take it no one would ever know that shell existed and if you leave that particular shell, the next lot of rain or cyclone winds would kill it.

[Annette Whitney, Sarina]

Gordon La Praik developed a keen interest in sea fan corals and the organisms that lived around them. He recounts:

I collected shells but not really as a shell collector. My interest was seeing how they lived, what they did. When I looked at them I wanted to know more about them. I'd find them sometimes, one shell would be eating another and so that interested me. One day I found a shell on a sea fan, a gorgonian. It was interesting and that set me off looking more for those.

[Gordon La Praik, Emu Park]

A different approach was described by Frank Cooper about his friends preventing shell collecting on their favourite part of the reef in the 1970s, by taking all of the helmet shells from one reef, re-homing them on a different reef until the shell collectors had gone and:

...two weeks after the trip they went back with their boat, picked up the shells off Pickersgill Reef and took them back again and put them on Mackay Reef where they originally came from.

[Frank Cooper, Port Douglas]

Glenda describes the approach to shell collecting in current times:

If you go out to Kings Beach on a really low tide you look for the sand just slightly cracking and if it's not olive shell it will be a helmet shell. I'd show the kids and then we'd put it back and make sure no one else has seen us do it because otherwise someone might take it away. I like to leave the live things there so they can breed if they get a chance.

[Glenda, Bowen]

Trochus and Clams

Trochus was an important food source and the shell was prized for making buttons until the middle of last century, when plastic buttons were produced. After that time, the market for trochus reduced dramatically (CRC Reef 2005). In 1928 "Aboriginal Industries" trochus luggers went south on the Great Barrier Reef for the first time but there were privately owned vessels working trochus south of Torres Strait before that. Clams, including giant clams, were harvested for their meat.

In the Reef Recollections oral histories, Don Duffy recalls that giant clams were plentiful in the 1950s prior to the arrival of clam boats and trochus boats to the Great Barrier Reef in the 1960s:

From the north-west corner of the sand spit on the north island [near Cardwell] back 100m from there to the southern end there would have been a clam shell anywhere with about 10 to 12 feet distance whichever way you looked.

[Don Duffy, Cardwell]

Ena Coucom, Margaret Thorsborne and Dave Nissen each told a story about seeing opened, white-mouthed giant clam shells where illegal fishers had taken the clam meat out and left the shells around the 1960s. After the clam and trochus boats came and went, it made a big impact on the number of giant clams. Don Duffy again:

There's none there now of course. They've been gone for many, many years because people were collecting them. There were a lot of trochus boats [that] worked the area, they used to come down from Thursday Island and they ate the clams.

[Don Duffy, Cardwell]

Neil Tabo described how important the trochus industry was for his community on Murray Island in the 1950s:

After grade seven, the only job you've got is trochus diving. So when we left school ... it became our life... With all the trochus diving you can get money: us, you know, islanders who go pearl[shell] diving... No trochus, no money... If you got no job, you got no money. 'Cause that's the only situation, only forecast we had, only trochus diving. [It] became our life – lifestyle.

[Neil Tabo, Brandon]



Neil Tabo, Sr.

Don Duffy worked with a number of Islanders on a trochus boat. He describes the food that he and the Islanders, lived on whilst collecting trochus in the 1950s:

There was a lot of trochus boats worked the [Cardwell] area. They used to come down from Thursday Island. I was the only white man and there were 18 Torres Strait Islanders. You have to live the same as they do. You live on dugong and turtle the same as they do and of course the slug out of the trochus shell ... We got 8 tonne of that in 2 days.

[Don Duffy, Cardwell]

To get an idea of the volume of trochus shell that was removed, Neil Tabo described a competition that was held between two boats from Murray Island, to see which boat could unload 50 tonnes first.

We only had to go to six reefs and we could come inside with 10 tonne. In one year, we had over 50 tonne and we won the competition.

[Neil Tabo, Brandon]

Despite the reduction in large-scale trochus collection, there is still a market for the products. “Even now,” said Jim Edwards:

I still take out a trochus boat. And I’ve got eight, nine blokes on the boat and they like to wait for their shell and we bring it back. ... They get \$1.10 a kilo for the shell and we cook them, they cook for 45 minutes, then take the meat out of the shell and the meat is put in a big bin and washed thoroughly. The shell is put into poly bags that hold thirty or forty kilos, the meat is put into ten kilo [containers] and frozen. Then they’re sent overseas. That’s how the product is transported. There is a market for it in Australia, they call it Northern Abalone.

[Jim Edwards, Mackay]

Crown-of-thorns starfish

The crown-of-thorns starfish is one of only a few animals that feed on living coral tissue. The starfish is named for the dense covering of long, sharp spines on its upper surface. At low densities the crown-of-thorns starfish is a ‘normal’ part of the reef’s ecology. However, when the numbers of crown-of-thorns starfish on a reef increase to the point where they consume coral faster than it can grow, the starfish can dramatically reduce coral cover, resulting in a major disturbance to the whole system (Birtles, 1997). This situation is commonly known as a crown-of-thorns starfish ‘outbreak’. Outbreaks of crown-of-thorns starfish have been a concern on the Great Barrier Reef for more than 40 years.

In the Reef Recollections oral histories, there were many stories relating to crown-of-thorns starfish. These could be categorised into two main schools of thought:

- The crown-of-thorns starfish has devastated huge tracts of the Reef and needs to be controlled. This viewpoint tended to be expressed by tourism operators like David Hutchen and Frank Cooper, as well as environmental, community/research people such as John Rumney.
- Crown-of-thorns starfish are part of the natural cycle of clearing and regeneration. This approach was most expressed by the professional fishers and divers such as Damien Langley, Lyle Squire, John D’Urso and Tony Fontes.

This is consistent with their spatial restrictions: in tourism, there are only limited areas that any tourism operator is permitted to take tourists. For tourism operators, it is critical that the Reef in that area looks as attractive and vibrant as possible at all times so that the tourists have a positive experience on the Great Barrier Reef. Therefore, any damage to the coral cover in those areas is of substantial concern. On the other hand, professional fishers and divers are more flexible, in that the species that they target are not always dependent on the quality of coral cover on any given place: if the coral is not as prolific in one area then it is possible for fishers and divers to move to a different part of their permitted area to find fish and other animals. In addition, it is in the interests of divers (particularly skin divers/ spear fishers) and professional fishers to trust that the extractive activities they undertake are not substantially impacting on the ecosystem, or else it would threaten their livelihood. Each of these themes is explored in more detail below.

Devastation

The second theme of stories told of the impact of the crown-of-thorns and the human attempts made to control them:

You can go to places hit by the crown-of-thorns starfish and they're not regenerating, they are algifying. So some of the dive sites that we have gone to regularly for years and years we no longer go to – Phil's, on the bommies in from Agincourt and another place called Harrier Reef and they are not regenerating.

[John Rumney, Port Douglas]

Cocky Watkins agrees and said that in the 1960s and 1970s the crown-of-thorns had

...devastated the reef to the degree that you could hardly find any coral at all, any live coral ... You couldn't believe how bad it was.

[Cocky Watkins, Cardwell]

The tourism operators were particularly affected because the Reef in general and the coral in particular, are attractions that were central to tourists' experience of the Great Barrier Reef. David Hutchen, the founder of Fantasea Cruises in the Whitsundays, recalls in the early 1980s:

There were 300 very large crown-of-thorns starfish coming along on top of Hardy Reef where the pontoon was. We had people remove them. Sunlover had six divers working for them for the four hours the boat was out there, every day, killing starfish. And their five acres reef just shrunk and shrunk and shrunk down to about half an acre.

[David Hutchen, Airlie Beach]

Removing the starfish was not an easy process, mainly because they were so large and because they regenerate relatively easily. Frank Cooper spent time crewing on the Martin Cash vessel around the Port Douglas area and later the Quicksilver boats, where one of their jobs was to remove the crown-of-thorns starfish from the Reef. He remembers:

You've got to take them away, bring them home and throw them in the rubbish tin because if you ... break a bit off, that little piece will grow into another one. We took off hundreds and hundreds of these things a foot in diameter and you could see the difference to the coral. If crown-of-thorns gets on a bit of coral within a few weeks it would be dead never to return.

[Frank Cooper, Port Douglas]

Natural balance

The final theme of the stories provided about the crown-of-thorns starfish was that these starfish are a normal part of the Reef system in balance. Damien Langley sees the starfish as a lawnmower, which "goes through and eats all that old stuff out and lets new life attach to it and grow." Lyle Squire defends the cyclic nature of the Reef by explaining from his decades of diving experience:

I've seen cyclones, crown-of-thorns, bleaching and it's all, in five years' time, you don't see where it's been.

[Lyle Squire, Cairns]

Tony Fontes has dived extensively in the Whitsundays for 30 years. While he has seen the damage the crown-of-thorns starfish has done to the coral in a range of areas, he also noticed that they are present in areas where:

...people don't dive, places where even snorkelers don't snorkel so you know it's purely a natural impact.

[Tony Fontes, Airlie Beach]

John D'Urso has a knack for describing the essence of things. His viewpoint creates a clear picture of this theme of the role of crown-of-thorns in natural balance:

I think [the Reef] is going to be there a long time. It will have its ups and downs but it seems to recover. When this all went on there was all sorts of hoopla going on about the Reef's finished, the crown-of-thorns are going to eat all the Reef, there'll be no more Reef. Now suddenly it's 30 years ago and the Reef's still there.

[John D'Urso, Innisfail]

A number of people described theories of why the crown-of-thorns starfish increased in numbers from time-to-time. Bruce Shepherd recalled a theory by a family friend and photographer, Noel Monckton, who used to catch and dissect bait fish and discovered that "every one he cut open was full of the immature crown-of-thorns starfish." Judy Norman said that "the old cod who's been caught out, he used to eat the crown-of-thorns" and she thought that the clams ate the eggs of the starfish too.



Crown-of-thorns starfish Photographer: L.Zell

As the clams were taken away, she said, "the crown-of-thorns were just butterflying everywhere and eating up the coral." Don Duffy reported that the trochus shell divers used to collect bailer shells and the bailer shell eats the crown-of-thorns. He says:

[The luggers] cleaned the bailers out on the Reef and that's where the crown-of-thorns started to multiply because there was nothing to keep them under control.

[Don Duffy, Cardwell]

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Theme 3: Activity Change

Commercial fishing

Several forms of commercial fishing occur in the Marine Park, including trawling for prawns and scallops, trolling for mackerel, netting for barramundi and salmon and line fishing for reef fish. Commercial charter fishing operators take fishing groups out to the Reef for recreational fishing, including spearing. Tourism, including diving and snorkelling, is of course a large commercial business operating within the Marine Park borders. It supplies large numbers of tourists with recreational activities, so this activity will be analysed under the “Recreational Activity” section later.

According to the oral histories collected for Reef Recollections, commercial fishing has changed in regard to three things over time: the availability of fish, fishing practices and the effects of regulations.

Changes in fish populations

...you'd go to the Reef, don't ask me what reef we're on. We'd run up until we could see bottom and then we'd just go out a bit, throw the anchor out, throw your lines out and start pulling. That's how it was [in the 1980s]; honestly, I'm not exaggerating that's how it was. You'd just catch more fish than you could handle. Now you go out with GPS, echo sounders, sonars, all the latest gadgetry; it's very quiet I can tell you, very, very quiet.

[John D'Urso, Innisfail]

Large commercial catches

Neil Tabo grew up on Murray Island in the Torres Strait. Like most men on the Island in the 1950s, when he finished school Neil went to work on the trochus boats until he got married in 1960. Don Duffy worked on trochus boat in the mid-50s, doing six-week stints out at sea. The worst catch they got was eight tonnes, while the best was 20 tonnes. The advent of plastic buttons saw an overnight crash in the trochus industry, remembers Cocky Watkins.

Cocky Watkins's brother Frisco used to operate fishing trips out of Townsville in the 1970s. Frisco would take 20 to 25 fishers out and come back with up to 4 000 pounds (about 1 800 kg) of fish in a weekend.

Damien Langley of Wonga Beach in the far north used to fish for big Spanish mackerel in the 1980s. In a week they would take four to five tonnes of fillets off fish weighing 10 to 20 kilograms each. Lionel Bevis remembers in his commercial fishing days they wouldn't take any fish that weighed less than five kilograms.

Dave Nissen is a charter boat operator and former commercial fisher from Innisfail. He recalls times in the 70s where he'd go out to one spot, get 400 pound (about 180 kg) of coral trout and be home of the evening. Frank Cooper went out to Evening Reef off Port Douglas one morning in the 1970s and fished from eight o'clock to one o'clock in the afternoon and caught 106 coral trout with just one other person. That was the most fish he'd ever caught in his life

and he made a very happy profit that day. Lyle Squire was a keen spear fisher in the 1980s. One day he took a total of 25 trout and six Maori wrasse.

Jim Edwards worked from Middle Island to Gloucester Island towing a seven fathom net in the 60s. He would catch 750 to 900 pounds of 20cm long tiger prawns in a night. Patsy Lee recalled in the 1970s that the prawn trawlers used to tie up at O'Connors Wharf in Gladstone. They would empty their catch on the wharf and "the whole wharf was full of prawns". In the 1980s Robert Wood reported seeing 20 or 30 prawn trawlers working around the Bundaberg area whereas now he only sees one or two.

At a council meeting in Sarina in the 1980s, Michael Hackett commented, after having just flown in from Brisbane, that he saw so many prawns in the water that it looked like "red lead paint" all along the coast around Sarina. One of the councillors:

...just grabbed all his books and papers and said Mr Chairman, got to go. He had a trawler and he went down to get stuck into it. He was making more out of the prawns than he was making at the Council meeting.

[Michael Hackett, Sarina]

Reduced fish stocks

Jennifer Mondora has seen inshore netting have an effect on fish catches in the northern region around Cairns, while Roger Kelly, a commercial fisher in Yeppoon, used to catch enough fish to produce about 300 pound of fillet per day, with just one other fisher in the 1960s and early 70s. Brian Fogarty has been fishing the far northern section of the Great Barrier Reef for over 30 years. The most significant change in availability he has seen has been in bait fish stocks. He said from the 70s to the 80s sardines and hardy heads were plentiful, then they dropped off suddenly and never recovered.

According to Terry Must, 10 years ago there were 20 to 40 trawlers in Bowen. He reports that there has not been enough prawns in Bowen since 2004, so now there are only three Bowen-based trawlers.

In the late 1950s Don Duffy fished out of Townsville and recalls seeing up to 90 reef line boats (including dories) fishing during the spawning season, which he thinks had an effect on the fish populations. In 1960 he caught 22 800 fish throughout the year, by himself.

Robert Wood has noticed a marked impact on the trout populations from a concentrated effort by commercial spear fishers.

Changes in practices

Many people commented on changes in fishing practices in their stories for Reef Recollections. A change in the amount of fish available was an important driver of changes in practices and activity. New ways of fishing needed to be developed so that people could continue to make a living in the face of dwindling fish stocks; new technologies were adopted; and the scale of activity was increased because large boats could catch fish more efficiently. These changes in practices threatened the livelihood of other smaller boats and more traditional methods of fishing. Many participants spoke of the changes in practices that were done to adapt to decreased fish numbers or increased competition.

Gwen Beitzel and her husband were fishers in the far north of the Great Barrier Reef back in the 1970s. They used to 'rotate' their efforts, not going back to an area they'd already fished, hoping to build the stocks up. Gwen thinks that not so many people practice that style of fishing any more.

Terry Must is a fisher from Bowen who has seen a change in the way fish are processed and an increase in the length of fishing trips. Trips used to be two or three weeks travelling up the coast, whereas as a result of new technologies, now the trips may only be six days to obtain a sufficient catch to make the trip viable. Terry also recalls, 20 years ago a fisher would be up until midnight each night scaling and filleting the catch as everything was processed on board. In the present there is a strong live reef fish trade, so some boats do not need to scale or fillet fish. He believes that the reef fish fishing industry has become easier as practices have changed.

Other boats have shifted from ice to on-board freezers and cool rooms. This has meant that many more fish could be caught and taken back to the mainland at any one time. Brian Fogerty is proud of the fact that his boat holds the record for the greatest number of reef fish caught in one day: 1 075 pounds (about 485 kg) of fillets. Now Brian Fogerty is seeing fishers target smaller coral trout for live export overseas.

Trawling

Cocky Watkins noticed that when the trawling industry expanded in the 1970s, there was a high demand for boats which was not met. Rob Wood recollects that in the 1980s scallop trawling was a lucrative business. They used to work the sandy areas right up to the reef. A new technology was introduced by running through the reef with a set of chains to stir up the scallops, then go over it with the nets. Cocky recalls that:

They flogged it. They absolutely flogged it for everything it was worth. It was a commercial industry and they just ploughed the ocean and if there was a reef in their road they just bowled it over.

[Cocky Watkins, Cardwell]

In contrast, only small trawlers worked the Burnett River in the past and even nowadays, according to Peter Mulhall. Most of them use power boats or big tinnies to drag for prawns. Peter remembers that trawlers used to burn 80 gallons [over 300 L] of fuel in a night, but he said that that was nothing compared to the fuel consumption of the big boats now.

Navigation

Damien Langley used to do 12 month seasons on a trawler in the Torres Strait in the 1980s. There was no GPS or map of the outer reefs, so he used to navigate by compass, sketching a map. Mike Prior says it was “nerve racking” if you couldn’t see properly: the only navigation aid you had was your eyes in the 1950s.

Brian Fogarty is a line fisher from Cooktown who says he still fishes like they did 100 years ago, but he wouldn’t attempt to go out now with out the essentials like GPS and sounders: “why waste your fuel and your time?” he says. Brian remembers that the trout trade boomed in the 1980s.

Numbers of fishing vessels

Effort has changed somewhat through the years as well. John D’Urso from Innisfail tells us about the area in the 1950s. There were only about six or eight commercial fisher around at the time and they all trolled for mackerel, as reef fish were considered too difficult to catch because lines would often be snagged on the reef. Brian Fogarty remembers in the 1970s there were four trawlers working out of Cooktown and 10 or 15 working out of Port Douglas. Now he recalls that there are two in Port Douglas and none in Cooktown.

Cost-benefit analysis

In the 1980s Robert Wood used to go out with a friend on a small line fishing boat to Lady Musgrave Island. Over three days, they would aim to catch 1000 kilos of fish to make the trip

financially worth it. According to Robert, fuel costs have now pushed those small boats out of business.

Bruce Shepherd saw the Depression have an impact on the way people fished, including his father. In the 1930s, Bruce's father didn't catch enough fish using line fishing to make the trip out to Michaelmas Cay worthwhile, so they resorted to explosives to kill large numbers of fish. They would grind up some seagull or sooty tern eggs and chicks to use as bait to attract a fair number of fish in and then set the charge:

... 'cause that was the Depression and you've got to live and that's how they made their living.

[Bruce Shepherd, Mission Beach]

Lifestyle

In contrast to the hand-to-mouth existence in these early days, lifestyle was important to many commercial fishers, a reason for getting into and staying in the industry. John and Linda Rumney got into commercial fishing in the 1970s as a way of supporting their love of diving and exploration. They found they could sell their fish as they went, pick up some more fuel and ice and go onto the next port via the reefs.

Effects of regulations

The changes – the rezoning and the reef plan have been the hardest things that come through on us, as a reef fisherman. Yeah. We put up with the weather, you know. Doesn't matter if you get a cyclone out there. You just batten down and hang on. But all these changes that have come through with the management plans are the hardest to hit the industry. That has stopped the growth of the industry.

[Terry Must, Bowen]

According to the oral histories collected for Reef Recollections, regulations have affected all aspects of commercial fishing, trawling and tourism business.

Trawling

Culturally, there is a commonly held distinction between commercial line fishers and trawlers. It was rare for people to hold both licences as there was some rivalry between the two groups. Brian Atherton tried having both licences in the 1970s but it was too much hassle so he eventually switched over to trawling:

And the only reason because we went trawling, it was easier, easier money. I enjoyed reef fishing a lot more, but it was easier [to be] on the trawler.

[Brian Atherton, Sarina]

Tony Lee used to get woken up by the noise and lights of the trawlers off Mission Beach in the 1980s. Tony helped to stop trawling there in 2002 by showing a Senator the beach on a beautiful day and told him to imagine the beach full of by-catch and the impact that would have on tourism. Jennifer Mondora said the restriction of trawling days has made a big improvement on fish populations in some areas: one year she perceived that the trawlers took all the brood stock grunter in an area out from Cairns and they were not seen in that area for another eight years.



An agglomeration of shells on Cooya beach

Regulations and rule violations

Many fishers talk about overregulation, having to comply with different levels of zoning, quotas and licences passed by Queensland and Australian Government agencies. According to several fishers, there is a lot more paperwork now than ever before. One person noted that you must write down every fish you catch.

Don Duffy told of how the Reef would be overfished if zoning had not been implemented in the early days. If someone found a new little reef, they would mark it on their GPS and give the coordinates to a few mates who would go and fish it out. Another commercial fisher has seen a black market open up in the commercial fishing industry. As the shops have demand for smaller sized fillets, he says, the commercial fishers will catch undersized fish, sell more of them and reap a profit even if they get caught and fined. It should be noted however that many participants believe that compliance with the regulations is very high among commercial fishers in general.

In the 1960s many of our participants saw or heard stories of fishers from Asia who would fish illegally on the Reef for clam meat. The local residents who spoke to us had no recent reports of this occurring within the Marine Park boundaries. However, in the 60s, Ena Coucom was at Wreck Reef when she saw Asian fishers walking the beach with bags, picking up shells. After they returned that evening, they found the clam shells had been opened and the meat taken. Margaret Thorsborne also saw this happening in the Brook Islands off of Cardwell. She and her husband found lots of recently-dead clam shells on the beach. Dave Nissen and John D'Urso saw the same thing while they were out fishing in the 60s:

Those bastards were going around with these big curved hooks you know and they just ripped the clam out and opened it up and they'd just take the muscle, the muscle in the clam. That's all they were taking hey.

[Dave Nissen, Innisfail]

Recreational activity

Recreational activity on the Great Barrier Reef has changed significantly over the past 60 years. Snorkelling is and has been a pastime of many coastal residents. Tourism, including diving and snorkelling, is a large commercial business operating within the Marine Park borders. It supplies large numbers of tourists with recreational activities. The advent of SCUBA and tailored tourism experiences has advanced the tourism industry into the largest revenue-earning industry on the Great Barrier Reef. Boat ownership is increasing, as is the size of vessels being bought. As a result, more people have access to the Reef and are able to travel to the outer reef than ever before. Shell collecting was a popular hobby throughout the 50s, 60s and 70s but changed markedly after the introduction of restrictions on shell collecting on the Great Barrier Reef. This section examines people's descriptions of their recreational activities and how they have changed over the past 50 years.

Fishing

Fishing was a part of growing up for many coastal residents. Several participants fished as kids with 'wackos,' long cane rods with a bit of line and a hook tied to the end. Peter Mulhall used to get tackle and hooks from scrounging the rocks at low tide for those lost by fishers during the night. Bruce Shepherd grew up in Townsville in the 1940s and he remembers everyone paddling Ross Creek in 'belly tanks' which were old fuel tanks they used as boats. Bruce used them to check his father's crab pots.

Judy Norman grew up in the southern part of the Marine Park and tells of a childhood memory:

I lived on the Boyne River. The mullet used to come up there to spawn and you could go down the river in the rapids with a lantern on your dingy and the mullet would jump in. If you happened to put a net across you'd have one in every mesh – there were so many of them. You wouldn't want that many. We'd take them home and dry them out and we'd have mullet all the year.

[Judy Norman, Cooktown]

In the 1940s George Betteridge went out to Old Reef and Wilson Shoal from the age of 12. He remembers vividly how his hands were sore from pulling up red emperor: one day they were so plentiful they caught 400 pounds (about 180 kg) of fish in one day. Dave Nissen used to ride his pushbike down to the beach with friends in the 1940s and go spearfishing. Often he would pedal home with a 50 pound (about 20 kg) barramundi on the handlebars.

Queensland is one of the only states without recreational fishing licences. Peter Mulhall can remember growing up in the 1950s in Burnett Heads, just outside Bundaberg, and seeing all the recreational fishers with their outboards, running nets in the bay for prawns, fish and crabs. Things changed when regulations were introduced where a commercial licence was necessary in order to use such large nets.

Changes in fishing patterns

Robert Wood has seen a shift in patterns of recreational fishing. According to Robert, fishing has become extremely popular in Australia, thanks to the increasing interest in sports fishing. Reef fishing has dropped markedly as impoundment fishing has taken off as a pastime.

In the 1990s Bruce Shepherd used to see many tourist fishers get carried away with their catches. They would often catch too many for them to eat or give away and so would dump

them. Then new bag limits were set to reduce this problem and Bruce hasn't heard of any more fish being dumped for quite a few years.

Tricks and secrets

Particular tricks of the trade were prevalent in our stories. Many fishers had special bait they used to target their favourite fish: people would use tailor, garfish, liver soaked in kerosene, green tree frogs, sand worms, prawns and cut up fish. For example, Ivan Garrod would only look for crabs in the months with an 'r' in it: in winter (May June, July and August) they would be hibernating. Many fishers from the coast know that shortly after a substantial rainfall, the prawns will emerge.

Bennett Walker commented that pumpkin head trevally only come into the Daintree River at certain times of year, usually August/September when the black bean tree blossoms. Bruce Shepherd noted that from June through August spotted and grey mackerel were the "bread and butter" fish that were caught most easily. Frank Cooper would always catch more fish in the wet season than any other time of year.

Neville Robertson-Hughes' father-in-law used to take him fishing. He had a very exacting mode of fishing: by a diary which had passed through two generations of fishers with specific information on different types of fish. This was not considered normal for everyone, but he would always come home with a catch.



Bruce Shepherd and his world record from the International Game Fish Association

[H]e had this diary and he would fish by the diary. You know, you had to be at a certain place at 12 o'clock on 6 June and it was a moonlit night, then if you threw a line overboard you would catch salmon. And they would go to that place and know that they would catch fish. It just happened.

[Neville Robertson-Hughes, Gladstone]

A feed of fish

Many people had tales of large supplies of fish. Murray Island, north of the Great Barrier Reef, has deep water very close to the shore, so in the 1940s it was possible to just throw your line off the beach and catch trevally or any other fish, says Neil Tabo, a Murray Islander. In the 1960s Dave Nissen never had a problem getting a feed of barramundi as the rivers were full of fish.

Neville Robertson-Hughes recalls a friend of his who used to gorge himself on oysters in the 1970s. Neville would drop him off at Gatcum Heads and pick him up three hours later, with a full galvanised pail of oyster meat and a full belly of the same. Ivan Garrod from Bowen once caught 125 mackerel in one day during the mid-80s while Bruce Shepherd caught 150 fish in two days in the northern region of the Great Barrier Reef around 15 years ago.

Changes in shelling activity

Peter Mulhall collected shells along the southern boundary of the Marine Park back in the 60s. Peter and his friends would only ever collect a few shells off each reef and would swap with the Yeppoon Shell Club (now Shell World). In contrast, before sustainable collecting became widespread, John Rumney used to take a boat load of shell collectors out once every couple of months. They would collect all night, coming back with hundreds or thousands of shells. Now there are limits to how many and what types of shells can be collected, which has impacted on the popularity of the pastime.



Shell World oyster shell collection

Ena Coucom helps to run Shell World in Yeppoon. Shell World's display is an amalgam of many enthusiasts' collections. Ena's passion for shells began in the 1950s when she and her husband learned about the life history and names of the different types of shells. It was commonplace for shell collectors to take the live shells as they would be in better condition. Everyone seemed to know a different way to extract the animal and clean the shell. Annette Whitney of Sarina recalls shelling in the 70s: only taking a few of each species. Bushy Island in the 70s had cones, bivalves, volutes, stroms "just about everything," particularly blue cowrie shells which were quite rare. Last year, she saw just as many shells as ever:

*The water hardly went off from the beach yet the cowries were still all under the rocks.
This was a beach north of Airlie Beach.*

[Annette Whitney, Sarina]



Glenda

Ena noticed that over the years she would have to move farther out to find nice shells in the southern reefs as the numbers dwindled closer to shore.

Glenda's approach reflects the changes in attitudes towards collecting as the numbers of shells have declined:

*Well if I find a dead shell, I don't mind taking that, but
if it's alive ... I figure they're there for a reason.
They've got to breed up otherwise there'll be no shells
for future generations.*

[Glenda, Bowen]

Diving

According to the oral histories collected for the Reef Recollections project, few people had acquired aqualungs or SCUBA equipment 40 to 50 years ago, but the activity really took off in the 1980s as the equipment became more sophisticated and available. Gordon La Praik bought his first aqualung when he was 22-years-old around 1960, but he rarely used it as he had to send the tanks to Brisbane to get them refilled. Alan Cochrane has been certified to SCUBA dive for 40 years because he was taught back then by a cousin who was in the Navy. "There were no instructors, there were no dive shops," he recalls.

In the early days there were no wetsuits, no drysuits and no weight belts. Gordon La Praik had to wear woollen jumpers tied on to his body with a rope. Because of the lack of facilities for divers at the time, he remembers it was a "learn as you go" process.

Nobody knew anything about this diving business. Like no-one knew, we didn't know even about how to equalise pressure inside your ears. There was no training like they do today; people become aware and then they do something. Back then we jumped in and did it.

[Gordon La Praik Sr, Emu Park]

One of the motivations for Alan Cochrane to set up Cochrane's Artificial Reef was that divers became bored easily with the local sites, a concept that was incomprehensible to Alan:

...most people, they want to see giant fish and they want to see them regularly, et cetera, whereas to me a nudibranch is just as fascinating, if not more so.

[Alan Cochrane, Bundaberg]

Lyle Squire began his love of the Reef as a spear fisher, first diving the creeks, then joining a dive club. Lyle has passed on his love of diving to his family, but is a little concerned for his sons. When he first started diving, he was the first person to explore dive sites off Cairns. Now "it's all been done" and to seek that adventure Lyle's sons have to dive deeper, which is much more dangerous.

Damien Langley was "addicted" to the thrill and the danger of diving. He recounts some of his experiences diving:

I've had a fair few goes at the bends. I've been in the chamber three times and I've had about five bends where I shouldn't have. I've had teeth explode, I've had my eyes pushed out, ears bleed, sinuses bleed, grabbed by giant gropers under water and shaken around, pushed around by tiger sharks. You see crocodiles in your average day. I've been stung by a cone shell and [it] paralysed one side of me and just about rolled me. I've been stung by Irukandji. Stone fish, I couldn't tell you how many times, to the stage where you're nearly immune. Box jellyfish, lion fish, bearded girls, bitten by morays and mud crabs and you name it I've had it happen to me.

[Damien Langley, Wonga Beach]

Tourism

Tourism on the Great Barrier Reef takes many forms, such as snorkelling with a tour group, live-aboard cruises to the outer reef, day trips diving the sunken *S.S. Yongala*, hiring a charter to land a prize winning Marlin, relaxing at the five star resort on Lizard Island, sailing in the Whitsundays, visiting the underwater observatory at Great Keppel Island, swimming with dwarf minke whales on the Ribbon Reefs and so on. All of these activities are aimed at different markets, require different services and are dependent on where along the Queensland coast one is. Tourism on the Great Barrier Reef started as quite small scale local operations, such as private charter boats and government-commissioned bus tours. The industry began to boom in the 1980s and over time, particularly in the last 15 years, tourism has diversified to accommodate new markets.

John Smith was friends with the owners of an island resort in the Whitsundays in the 1950s. He would often stop at Lindeman and have lunch with the family, or take part in the entertainment of the guests; even taking a few out on his own boat. He knows it would be illegal today, but says “in those days it didn’t matter”. He then worked on Hayman Island for two years in the 1970s, going out to the many islands in the Whitsundays twice a week.

In the 1970s David Hutchen bought a yacht and began running day trips to Hamilton Island. There were no large ferries then and he provided the only way for most people to get to Hamilton Island. Even in the 1980s Whitehaven Beach was untouched because the only access to it was via a private boat:

So I set up this boat to go to the Whitsundays, go to Whitehaven Beach on Tuesdays, Thursdays and Sundays. And within two or three weeks, it was chock-a-block every day, 350 people. So I had to make it seven days a week and [now when I] get round there, there’s 150 boats there. So whether it’s good, bad or indifferent, I claim a lot of credit for opening up Whitehaven Beach to the world.

[David Hutchen, Whitsundays]

Quality service

The Whitsunday coast is now one of the tourism “hot spots” on the Great Barrier Reef. David Hutchen strived to create a better experience by buying better food, having a qualified nurse on board at all times and instigating the use of disposable mouthpieces for snorkels. The concept was so well received that Daydream Island and Sea World now use them too. It was not easy though: for many years David was up at four o’clock in the morning and would not get home until seven in the evening, seven days a week. He would also dive before the tour group got into the water and remove the dead broken coral from on top of the live coral to enhance its appearance.

One of the other major tourist destinations on the Great Barrier Reef is the Cairns - Port Douglas region. John Rumney saw tourism grow from just two boats operating in Port Douglas in the 80s to the tourism epicentre it is today. The concept has not changed much however: according to John, you provide a service for whatever activity is desired.

You have the fishing people and the diving people. I think everybody was pretty excited about going to the reef and that kind of thing. It was a lot farther away back then and the boat was very little. You wouldn’t even go out on that boat today, you know what I mean? The economy of scale and the economics of tourism has created the Quicksilvers and the Great Adventures - all the little boats that take 120 people – we were taking eight people.

[John Rumney, Port Douglas]

Increased tourism

In Bundaberg in the 1980s, “tourism was rearing its head as a viable option for districts to make a bit more money” says Alan Cochrane, founder of Cochrane’s Artificial Reef. Alan’s pet-project-turned-reality took many years to come to fruition but now is estimated to bring around \$1 million to Bundaberg annually. Bennett Walker also saw tourism ramp up in the mid-80s. According to Bennett, Mossman Gorge would get around 20 cars a day back then and today it is closer to 2,000. The Walker Family began running cultural tours after they had requests from friends who came to visit, whom they took into the mangroves and showed them how to hunt and fish.

Some might say that the increased number of recreational visitors to the Great Barrier Reef has reduced the intensity of the experience. John Harper is a Whitsunday local and even when he visits tucked-away local spots he finds:

...all of the good anchorages are absolutely chock-a-block with people.
[John Harper, Airlie Beach]

Charter tours

While changes in fishing attitudes and practice were examined in an earlier section, it is important to recognise that tourist-based fishing, such as charter tours, have changed over time too. While in the past charter fishing tourists would often try to catch enough fish to justify the cost of the trip (such as John D’Urso’s work in Innisfail in the 1960s and 70s), now the emphasis has changed to the catch-and-release for the thrill of the catch rather than to take home a trophy fish. Gwen Beitzel’s son Jamie runs sports fishing trips from Cairns. It’s all about the experience she explains:

He only takes tours, like he takes fishing trips, sporting fishing, so he’s not into that landing it for commercial, to sell it. He’s only letting people play it on a rod and have a great time landing it. And they get a queen fish and they don’t mind, these people, as long as it’s a fish and it jumps and it pulls and they’re having a great time.
[Gwen Beitzel, Wonga Beach]

Damien Langley speaks passionately about his motivation for running the tourism side of his business:

I can go run my boat and make X amount of thousand dollars as a commercial fisherman. But I can take a person out who’s never caught a really big fish and they catch the fish of their life and they’ll remember that forever. That’s what I’ve got a huge passion for. I just take people and make them too happy.
[Damien Langley, Wonga Beach]

For divers, exploring the underwater realm is the attraction. Tourist divers tend to enjoy being amongst the coral, fish and other sea life. When Tony Fontes arrived in Airlie Beach in the 70s, there was one dive shop, Barrier Reef Diving Services, which he eventually bought a half share in. The industry took off and Airlie supported around three or four dive shops through the 90s. It eventually peaked at seven, but today there are none due to a drop in backpackers and an increase in sail boats:

Today the town has no dive shops and that’s what I mean. Diving is very much a second entity to sailing and there’s always been sailing and diving, now there’s sort of sailing, sailing, sailing and diving.
[Tony Fontes, Airlie Beach]

Theme 4: Community Perspectives

Population, community, family

Queensland has been a land of plenty for thousands of years and a land of opportunity for non-Indigenous Australians and immigrants for over 200 years. Many people moved here from other places within Australia and overseas to take advantage of the more recent opportunities for jobs in industries such as fishing, mining and other resources.

The Great Depression (1929-32) was a time of extreme hardship for people in Queensland just as much as for the rest of Australia. After the stock market crash in Wall Street in October 1929 created a worldwide economic Depression, unemployment in Australia reached its peak in mid-1932 when almost 32 per cent of Australians were out of work (Australian Government, 2007).

The Great Depression meant that children from working class families often left school at 13 or 14-years-old to find jobs to help support the family. Near the Great Barrier Reef, fishing was considered one of the better jobs to get because the work was quite well paid compared to other unskilled labour. Migrants, particularly those from Italy and southern Europe, were at times resented because they worked for lower wages than others (Australian Government, 2007).

After the Depression, through World War II and beyond, the fishing industry within and around the Great Barrier Reef developed due to the introduction of otter trawling for prawns, the development of refrigeration and other preservation technology, government-led and privately inspired expansion of fishing into remote waters and new attitudes in professional fisheries (Haysom, 2001). This provided the livelihood for many families living along the northern Queensland coast and, indeed, was one of the few low-cost sources of food for very poor families.

Population

Many of the stories provided to the Reef Recollections project described life in Queensland and reflected on the changes in the Reef, fish supply and most especially the cultures and attitudes of local residents over time. People talk about the implications of an increase in population on their lifestyles: where they live, how they relax and recreate and the impact on quality of life. Two of the areas with large increases in tourism and resident population are Airlie Beach (and the Whitsundays) and Port Douglas.

In his Reef Recollections oral history, Frank Cooper describes how the population of Port Douglas changed:

I've seen it grow from ... less than 200 people to what it is now where there's several thousand.

[Frank Cooper, Port Douglas]

John Harper's family was one of the first to settle in the Whitsunday region. From the 1940s to the present day, John noted the change in the population:

In the first years it was okay, there were a few people around, there were people we knew. There were Proserpine people who came and started living at Airlie Beach and then gradually, gradually, gradually ... there was a big auction of Crown land ... and all the houses started to come up and then gradually bit by bit it grew and grew and grew.

[John Harper, Airlie Beach]

Population, boating and fishing

As with Airlie Beach, the Reef Recollections oral histories noted that other country towns have gone through peaks and troughs of employment and industry as well. According to the oral histories, when Queensland coastal residents are not prosperous they have historically relied on catching fish as an important source of food. Likewise, people commented that the sort of recreation people had was dependent on what people could afford. Alan Cochrane, a long-time resident of Bundaberg, noted that Bundaberg had times of being wealthy and other times where there were social and economic problems and unemployment. In early times, few could afford anything other than a small boat or "tinnie" with which to go fishing. Alan speaks of the 1960s when people, who relied on fishing as their livelihood, started to create artificial reefs in the inshore areas of the Great Barrier Reef to attract fish close enough to home that they could use their small boats.



In the early 1980s, David Hutchen opened up the access to Whitehaven Beach and other destinations within the Whitsundays. He reflects on the need for boats to see the attractions:

When I first went to Whitehaven Beach in my yacht Banjo Paterson one weekend, there was absolutely no-one there. Not a soul. And the reason for that was pretty simple: you couldn't get there unless you owned your own boat.

[David Hutchen, Airlie Beach]

Recreational boating has increased substantially since then and has opened up the Reef to many people who had not previously experienced it. Over the past seven years, for example, recreational boat registrations have increased from 59 000 to 80 000 along the Queensland coast next to the Great Barrier Reef.

Bruce Shepherd, a farmer from Mission Beach, reflected on the increase in number in recent times of farmers who, in the off-season, could go fishing through the week for the first time. In contrast, industry such as the sugar mills local to Ayr are now working "24 hours a day, seven days a week" according to Neville Eathorne and that has had an effect on recreation: people have less time to join sports clubs but more disposable income with which to buy boats and other things than in the past.

Boating and fishing

Recreational visitors' attitudes towards boating and fishing have changed markedly since the 1970s. At that time people stayed closer to shore out of respect for the dangerous nature of the sea, according to Brian Atherton in Sarina.

Bruce Shepherd commented that the "fishing pressure increased to hell" as a result of more recreational fishing and more commercial fishing in the area. He said he has noticed around Mission Beach that:

Instead of one boat a fortnight, one boat a month going to the reef, you've just about got to book your parking spot to launch your boat ... there's likely to be 30 boats a day go out.

[Bruce Shepherd, Mission Beach]

Similarly, Brian Atherton notes that around the islands near Sarina it is more difficult to catch fish of a sufficient number and size at present than in the 1970s. While the pattern of fishing at both time periods, is similar, in that "some days you'd go and get nothing, the next time you'd go out you'd get a good feed". He attributes the decreased number and size of fish to more people fishing. Compared to the 1970s, today there are:

... probably 20 000 fishermen as against 1000 fishermen.

[Brian Atherton, Sarina]

In Gladstone, there is a strong recreational fishing culture. However, access to good fishing spots without a boat is limited, according to Neville Robertson-Hughes.

Community

In the Reef Recollections oral histories, the Great Barrier Reef provided a strong focus in the past for social activity. Over the years, the activities and uses of the Reef have changed due to social and environmental shifts, but it is still an important focus for people's recreation.

Michael Hackett recalls the times in the 1940s where his friends' recreation would centre on Campwin Beach, near Sarina:

Yeah, all the kids on the beach would meet up and we'd have bonfires on the beach; go and pick up all the debris on the beach and make a bonfire. And a good time had by all, because we were making our own fun.

[Michael Hackett, Sarina]

While kids were building bonfires on Campwin Beach, the Molongle Creek Boat Club was having working bees at Cape Upstart. George Betteridge recalls:

I think I started [the Molongle Creek Boat Club] in 1964. It was hard to get going for a while but once I got it going it was amazing how the men realised ...the benefit of it to them. It was amazing. I put on a working bee of a Sunday and got half a dozen men to do this and half a dozen to do that and you'd have a dozen there and they'd be falling over and getting in one another's road there were that many people turn up for it. It was terrific.

[George Betteridge, Ayr]

Joe Linton's family developed a little village of huts around Cape Upstart in the 1960s and 70s, mainly because the family "would come over for a weekend" and think it was a fantastic place to buy a hut. He recalls:

...there's a section of about eight huts together there and it's just expanded from family commitment as such... I had my uncle on one side and an uncle on the other side... and then the next three huts up are cousins of mine.

[Joe Linton, Ayr]

Sharing and bartering

A common theme from the 1920s through to the 1950s and the present day is that the recreational fishers shared, bartered or traded their fish with members of the community. This could be on the side of a commercial business, such as in the 50s where Neville Eathorne's father George caught fish in the rivers near Ayr. Neville recalls delivering the fish to members of the community:

[Dad] had a set of scales hanging in the tree and he'd weigh every fish... We had baskets on our bikes and he'd say – Neville this one's for Mrs. Smith, that's £1. This one's for so and so and you'd fill up your basket... I'd have to ride from that side of town to that side of town just delivering the fish.

[Neville Eathorne, Ayr]

Others would barter their fish for other goods, such as Neville Robertson-Hughes' father-in-law in the 1920s:

[In Gladstone it was] mostly working people who didn't have much money and with the Depression and things like that they didn't have much at all. There was a barter system going on I know, but if people got a couple of blocks of butter they would barter with someone else for maybe a gallon of fuel or something like that. They would get by that way.

[Neville Robertson-Hughes, Gladstone]

The Walker family in Cooya north of Port Douglas still share their fish with their community: Brandon explained what happens on their regular fishing trips around the area:

If people want something, they'll give us money for fuel or they'll tell us, bring me a couple of mullets... if we've got a heap of fish, we'll go through the Mission and share it all around.

[Brandon Walker, Cooya]

Patsy Lee has a similar philosophy. For over seventy years, she caught "a lot of bream" and still passes them to people who need them:

And I give them to a lot of people that can't afford to go down to fish board and buy fish, you know, like, old pensioners and that. And when I come home, there's a pumpkin sitting there, or there might be a dozen eggs. And I say, "Ah, youse're mad. I'm only giving it to you. I don't want it. I've got plenty of fish."

[Patsy Lee, Gladstone]



L to R: Bennett Walker, Bradley Pierce, Linc Walker, Brandon Walker and his baby

Conversation points

Other stories showed that the Great Barrier Reef was more of a focus for social interaction, for strengthening community. Neville Robertson-Hughes described how, because they were

“fishing for necessity”, the community around Gladstone became very strongly focused on fishing. He described how people would compare the number of fish they caught and use this as a conversation point. While he described this as developing in the 1920s, this continues to the present day.

Graham Humphries, a professional diver, describes this perfectly:

Fishing is actually the number one sport in Gladstone. I'm not a fisherman at all. But I think if you don't have a tinnie and go out for the weekend, you're dead you know? You're not on the social list because everybody does that, except me.

[Graham Humphries, Gladstone]

Further up the coast in Ayr, Joe Linton, a farmer, recalls the more inclusive approach of the community around Cape Upstart in the 1960s. There was some verbal jostling between the yachts and the motor boats:

They're rag and stick and we were stink boats. But it didn't matter ... what you were, you always had plenty of things to talk about.

[Joe Linton, Ayr]

Changes to community

The oral histories for Reef Recollections showed that the increased use of the Marine Park has had an impact on the availability of fish, quality of sea life and other environmental changes. Many people who provided oral histories for Reef Recollections commented on their beliefs about the reasons for this change, which mainly centred on taking too many fish or the wrong types.

The changes that occurred in the way people use the Marine Park were sometimes very swift. Two stories highlight this theme clearly but in very different ways. Maria Vouyioukas, now the owner of a fish shop in Home Hill, recalls spending her childhood at Rocky Ponds in the 1960s, which changed once the Greek families started to make enough money to spend on recreation:

As I said, we all went [to Rocky Ponds]. The whole Greek community practically met there on a Saturday or a Sunday and they would take a picnic and all meet. The men would go fishing and sometimes they would start a fire and cook it. That was when people didn't have boats and they couldn't go to other places. They started getting boats and they started getting huts and then the community just all scattered. That's when it finished.

[Maria Vouyioukas, Ayr]

The other story is from Bruce Shepherd in Mission Beach and relates to the way the community pulled together to raise funds for the local school up until the tightening up of food safety regulations in the 1990s. In particular, the Banana Festival was the major fundraiser for the school, with the Lions running the bar, Rotary selling steak burgers and the school selling fish and chips. The school club used to get fish from the caravan park from the tourists who “love catching fish” and froze it ready to sell at the Banana Festival.

Bruce continues the story:

When the Banana Festival was on they had a big supply of fish. ...Now Workplace Health and Safety has changed all that. You've got to buy your fish from the Fish Board, horrible thought to have tourists actually handling fish that people eat. So all that source of fish has stopped, whether it's a good thing or not, I don't think it is.

[Bruce Shepherd, Mission Beach]

Family

The stories of the Reef that people recalled very often included members of their family. From the time that they arrived at their new place of residence with their spouse or as a child growing up, people's stories recounted adventures that included the people closest to them. Family, then, is a thread through the stories that is sometimes invisible and sometimes as thick as the rope on a trawler net. The beach and the family are intertwined in Michael Hackett's memory of growing up in Sarina as a child in the 1940s:

You'd have a swim of a morning about half past eight, nine o'clock and then you'd go down about half past three until about five o'clock in the afternoon and have another swim. And the women would be sitting on the beach just watching the kids... and it gave the women a chance to have someone to talk to and so it was a happy time.

[Michael Hackett, Sarina]

There are many families throughout the Great Barrier Reef that centred their lives on fishing. Many were born to it:

Everybody in my family, on my side, on the boys' side since convicts have been fishermen.

[Damien Langley, Wonga Beach]

Others fell into it out of need:

I tell you in our days, not that we were desperately broke or anything, but our family were battlers and the bit of fish that I brought home from the river was an important part of our fare you know.

[John D'Urso, Innisfail, 1960s]

Often, however, fishing was recreation for families that may not have had a lot of disposable income and a good way for children to amuse themselves:

And we used to, as kids get all our fishing tackle in the bream season. Blokes would spill their tackle box and all the gear, the sinkers and the hooks and that would be all in the rocks. So we used to go out at low tide in the day with a bucket and get all this gear. You know you made do with whatever you go and that's how ... I got my start as a kid.

[Peter Mulhall, Burnett Heads, 1950s]

Fishing, then and families, are themes that underlie many of the stories people told of the Great Barrier Reef. Sometimes the family features more strongly in the stories and other times the fishing is the main subject, with family lurking around in the background.

Fishing and social clubs

Within the Reef Recollections project, fishing and other interest clubs provided (and continue to provide) a range of opportunities for their members and other people. A number of interest clubs, such as shell clubs, diving and fishing clubs were founded in the 1960s along the Queensland coast near the Great Barrier Reef so that members could better enjoy the Reef. Many of these continue to exist in the present day. Based on the oral histories, it is clear that clubs along the Marine Park served a social function, where people with similar interests met to discuss or practise their craft. In particular, the shell clubs served a social function for many women. Ena Coucom recalls the Yeppoon shell club in the 1960s:

We used to go and visit one another's house and have our meetings in houses first but then the actual formation was 1962.

[Ena Coucom, Yeppoon]

Functions of clubs

Clubs can be a mechanism for communicating with government, representing a community in formal channels to make sure residents' voices are heard and also to provide infrastructure that otherwise may not be provided:

Well when you've got a lot of blokes going to the Cape [Upstart] and the Cape was fast developing and you could see it needed things like ramps and all that sort of stuff so you'd all get together and do something about it. You couldn't depend on the government or anything like that. You did it yourself back in them days and we did.

[George Betteridge, Ayr, 1960s]

One of the important functions a club can have is to provide excitement in the form of competitions and expeditions. Many people recalled trips out to the Reef and competitions there and in creeks and a number recognised that the club gave them opportunities to use equipment that they could not afford to buy for themselves:

Back then all the divers in Cairns who wanted to go spearfishing had to go out on charter boats, because there was no other way of getting out there... and everybody that was in the dive club would go out on the spearfishing trips.

[Lyle Squire, Cairns, 1980s]

I never ever owned a boat big enough to [go to Elliott and Musgrave Islands] myself. So I always went with other people...as part of the Blue Water Club when it got going.

[Peter Mulhall, Burnett Heads, 1970s]

Learning and training

Belonging to a club can lead to other things such as a career or greater knowledge or understanding of one's interest area. Gordon LaPraik Sr joined the Yeppoon Shell Club in the 1950s to learn about shells but not collecting:

They were running around and swapping shells and things like that whereas when I looked at them I wanted to know more about them. ... My interest was seeing how they lived, what they did.

[Gordon La Praik Sr, Emu Park]

Gordon went on to take some spectacular photographs of soft corals in the Keppel Islands that have been used in scientific works including a book on soft corals and sea fans.

In the 1970s Lyle Squire fished "all the local reefs off Cairns" with the Cairns Dive Club and then:

After a couple of jobs I worked in a dive shop and from the dive shop I went and bought a fishing boat and went and did spearing as a living.

[Lyle Squire, Cairns]



Gordon LaPraik with some of his photographic slides

Source of income

Quite a number of people recounted stories of taking members of a shell club, fishing club or diving club out on a charter trip. These trips contributed substantially to the source of work professional charter operators had:

We would go out with a boat full of shell collectors and they would collect all night in the low tides and they would come back with hundreds, if not thousands of shells.

[John Rumney, Port Douglas, 1970s]

But I used to do a lot of shelling trips ... And these groups would come and I would get trips from Townsville, Cairns and Innisfail and we'd go out and do the low tides. You might only do this say three or four times a year but over the years there were a lot of trips.

[John D'Urso, Innisfail, 1960s and 1970s]

Changes to clubs

Joe Linton's father was one of the founders of the Molongle Creek Boat Club at Cape Upstart in 1962 and the Club remains an important part of Joe's life. As his life became busier ("you seem to have to work harder and longer to make the same amount of dollars"), Joe doesn't get the chance as often to go over to Cape Upstart. However, Joe said that his involvement in the area and the Boat Club "still stands as a high priority in my life".

While people's changing lifestyles affected their involvement with clubs sometimes, at other times it was an external factor that drove the changes to clubs. Patsy Lee was the president of a fishing club in Gladstone but things changed:

All the fishing clubs have just about closed up, 'cause they can't catch fish... Yeah, I'm in a fishing club and we hardly catch a fish, so I stopped the club because I was the president.

[Patsy Lee, Gladstone]

Jennifer Mondora has a story that highlights the impact of television on her fishing club:

We practised [fishing] casting at the north Cairns ANSA [Australian National Sportfishing Association] into pushbike tyres. It all came to a dead stop when Bellbird [TV show] came out and started at 6.30pm – it wiped out the practice.

[Jennifer Mondora, Cairns, 1960s]

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Theme 5: Place

Introduction

In literature relating to conserving, managing and identifying heritage, the word “place” is often used to refer to a bounded geographical area that has some meaning for people (Pocock, 2003). This meaning is mostly created through people visiting a place, connecting with it in some way and taking photographs, mementos or other objects (such as a fish) as a way of remembering that meaning. According to Pocock (2003), the philosophical literature makes the distinction between “place,” as described above and “space,” which is merely the geographical area itself. She says that:

...space is the general and absolute category while place is that which is imbued with social meaning.

[Pocock 2003 p.49].

‘Place’ is important to people because it is often through a sense of belonging, meaning and experience of a space that people remember, learn and collect knowledge (Casey, 1996, in Pocock 2003). Learning to fish, for example, happens in a particular place and the skills and memories and knowledge are collected because of that place. This means that communities’ history, based in a particular geographic area, can be collected, held and treasured for years or generations. It also means that different people and different communities can hold quite diverging connections and associations with any given space. Traditional Owners of particular areas have for thousands of years passed down to younger generations their stories, wisdom and history. This creation of the meaning of ‘place’ is incredibly important. Alongside this, holiday makers, tourists and other local residents create their memories and meanings of a particular place and these are also very important. Some places develop meaning through the multitude of created memories and sometimes can achieve almost mythical status, even for people who have never visited themselves. Pocock describes it like this:

It also points to the issue of social reproduction in which stories, memories and thoughts are transmitted within and between generations and through which particular places may come to be valued as heritage.

[Pocock 2003 p.52]

One such place is the Great Barrier Reef. In previous sections, the Reef has been explored, described and celebrated in its entirety and according to a range of specific themes such as species, environment and management. In this section, people’s personal connections to particular areas and regions of the Reef and the Great Barrier Reef Marine Park are explored and celebrated (see Figure 1).

Region 1: Far northern and the Cape York Peninsula

[The Reef is] my other home. I've spent so much time there, it's just something that you don't think of: it's just there. It's like trying to talk about your house – you don't give it any thought, you just know that it's there. The same thing with the Reef, you know, it's just there.

[Lyle Squire, Cairns]

The region that is referred to in this paper as the “far northern and Cape York Peninsula” reaches from Tully in the south to the tip of the Cape York Peninsula and beyond to Thursday Island, Murray Island and the Torres Strait. Many commercial fishers and trawlers spend significant amounts of time covering this area, even if their home is further south or beyond Australia's borders. While there have been local residents of the region for thousands of years, many people visit the far north and the Cape York Peninsula and discover such a connection with the place that they settle, develop roots and create families in the area. This has been going on for generations.

The far north as home

The far north, for Bennett Walker, is a cultural hub filled with family history:

My mum was born at the Mossman Gorge up in an old camp up there. So she was born on the river bank.

[Bennett Walker, Cooya]

Nourishment

A Daintree man himself, Bennett found Cooya to be a good place to bring up his two sons, Brandon and Linc:

This was the best environment for these fellas – because they're both healthy.

[Bennett Walker, Cooya]

Brandon recalled that he and his brother used to row out after school and “fill our boat with fish” and then row back to shore. From these beginnings, Brandon and Linc have opened a business running cultural tours in the local area. Linc believes that a connection to and an understanding of, the local area is really important for the health of the Aboriginal population.

He notes:

A lot of people don't have the advantage of a healthy lifestyle. That's why the Aboriginal food system has just broken down so if we can keep that up, [it will] help the people as well.



***Lakefield National Park, near Cooktown,
far north Queensland***

[Linc Walker, Cooya]

Brandon agrees and enjoys teaching people about what they can find from land that is nourishing and health-giving:

Most people we take, they've never walked through the mangrove or thought you could get anything out of the mangroves.

[Brandon Walker, Cooya]

Work life

Neil Tabo was born on Murray Island in the Torres Strait and moved to Brandon outside of Ayr in his later years. In between, Neil was taken to school on Thursday Island by his auntie and uncle and returned to Murray Island to finish school at seventh grade. Neil's father and grandfather taught him how to fish and collect trochus shells. Trochus diving was the only option for school leaver boys so that is what Neil did until he got a job working on the railway for 30 years.

Bruce Shepherd has a long history in the far north region. He was born in Babinda and remained there to train as an electrician at Babinda Mill. Bruce worked at a power station outside Tully and from there moved to Mission Beach to become a farmer. "Haven't travelled much have I?" he commented.

During the Great Depression, Bruce's father went to Michaelmas Cay and had the idea of harvesting coral and "doing it up for sale". These trinkets were sold by a pharmacist friend in Cairns. From there, he left the coral business and got a job driving boats from Tully Heads along the beach, collecting fruit from Dunk Island and delivering provisions.

Born and bred in Innisfail, John D'Urso refers to the Johnstone River, the river that winds in and around Innisfail as "the River" with lifelong familiarity. The water has been central to his identity and he fell into charter work by being "...always fish mad and boat mad" and buying a boat that was big enough that local people started to ask him to take them out fishing. After a few of these, the harbour master pulled him aside and explained he needed to get his licence to undertake these trips, which he did. (The harbourmaster also commissioned him to assist the ships that came into Mourilyan Harbour so he couldn't get into too much trouble). A combination of fishing and charter work kept him busy: the Reef provided him with a source of income for many, many years. John retired and describes himself as:

...old and jaded, I'm out of it, I'm finished... I've had my run and I've had a good run. I've had a lot of fun on the reef and I used to love it, I absolutely loved it.

[John d'Urso, Innisfail]

Being a child

Places are really important to Dave Nissen: all of his adventures are anchored to a town or an area or a river. Born in Tully, as a child Dave was big on outdoors activities:

We used to ride our push bikes from El Arish down to the beach and go spearing. When I was 10-years-old we'd be driving back to El Arish with a 50 pound barramundi on the handle bars of the pushbike you know.

[Dave Nissen, Innisfail]

In the 1950s, Dave's mum:

... used to go down to the beach at Bingil Bay and the old man would put a tent up and mum would be there with all us bloody red Indians running around.

[Dave Nissen, Innisfail]

Dave's work was mainly as an electrician "all over Australia building power stations." Dave appreciated the beauty and pristine condition of various parts of the north, while valuing the hunting and adventure as well. In between jobs Dave spent a lot of time croc hunting on the Cape York Peninsula: "I just went spearing, raping and pillaging, hey." He settled in Cardstone up behind Tully to have children, but it was far from a traditional childhood for them:



Dave Nissen

[My] daughter always said they were brought up in the back of a Land Rover going up Cape York.

[Dave Nissen, Innisfail]

Social connection

Further up north, Laurence "Slinger" Rootsey has a strong focus on Cooktown as a source of community connection and identity. Laurence is profoundly deaf and communicates with other Cooktown residents by way of a form of sign language he made up many years ago. Slinger worked for the Cook Shire Council on the roads for most of his life. Nowadays he goes down to the Cooktown wharf every morning to go fishing. He often hooks something but often has accidents so there are stories every morning about the fish that got away. Cooktown, therefore, is a source of fables and stories and provides topics that he can speak with others about. Slinger's friend comments that:



**Laurence "Slinger" Rootsey
in Cooktown**

He'll show you the new cuts on his hand where he's tried to hang onto a 200 pound stingray or something.

[A friend of Laurence "Slinger" Rootsey, Cooktown].

Brian Fogarty is another local resident of Cooktown whose home town provides background to his life as a mackerel fisher. Born on Thursday Island and having moved around northern Queensland, Brian doesn't mention "place" much in his tales of mackerel fishing in the far north. He started fishing 30 years ago and used to do a lot of diving:

[Diving's] one of the reasons I got into boats actually. Yeah we had a speed boat amongst a few mates when I was in Cairns and we used to go out and do a bit of diving and yeah that's how I got into the idea of going fishing.

[Brian Fogarty, Cooktown]

The safe haven

In contrast to the ‘born and bred’ local residents of the far north and the Cape York Peninsula, those who moved into the far northern region describe an area that they were drawn to, either because it was a safe haven for them, or because it was a wonderland:

There’s no place on the planet that’s better than Port Douglas. It’s just got everything. Well it’s got climate, number one. It’s got peace, number two. It’s got very, very clean air. It’s got the purest drinking water that’s ever run out of a tap... The Barrier Reef is just there. The beach is just there. The rainforest is just up the road there. I’m surrounded by beautiful trees, Ulysses butterflies, birds and nice people.

[Frank Cooper, Port Douglas]

Gwen Beitzel said that she and her husband “fell in love with Wonga Beach” during their honeymoon and found it great fun. It was also a place that suited her husband’s health so they moved, settled and became commercial fishers so that they could enjoy the lifestyle.

John and Linda Rumney came to Australia from the United States in 1974, not knowing they were going to stay. The Great Barrier Reef was “amazing” and “incredible.” They wanted to live near the Reef so they could dive and explore so they, too, became commercial fishers:

’cause that paid as you went, which got you out there and then we did our diving and snorkelling and island explorations and all that between the commercial fishing.

[John Rumney, Port Douglas]



Gwen Beitzel with her paintings

While they loved Cape Tribulation, Linda and John decided to live in Port Douglas because:

we just kept going until the first port where you could still sell your fish and get ice, which was Port Douglas...It was definitely a lifestyle. And every day, we were going, "you could never do this in the States, this is so amazing, we are so lucky". And we’d go, we’d leave Port and you wouldn’t see any lights til Cooktown and you might see a couple and then nothing until [Thursday Island]... it’s the most beautiful place in the world.

[John Rumney, Port Douglas]

Frank Cooper was born in Adelaide and lived there, Sydney, Melbourne and Brisbane. Frank had a case of wanderlust and throughout his life has “travelled all over the place”. He discovered Port Douglas on a trip around Australia and felt that “Port Douglas was far and away the best place in Australia.” Like John and Linda Rumney, Frank got a commercial fishing licence because “it was a nice way to make a living.” Frank often travelled away from Port Douglas but always returned because:

...my heart was still back in Port Douglas wanting to come back which I did of course.

[Frank Cooper, Port Douglas]

As it became better known, Frank felt quite protective of Port Douglas:

I didn't sort of want it to change but that was being incredibly selfish and I knew that I couldn't keep it secret forever.

[Frank Cooper, Port Douglas]

Other people came to the far north because it was a safe and supportive place. Judy Norman found work as a chef on Green Island in the 1940s and, while shifting around the far north and northern regions of Queensland as a chef and a crocodile hunter, returned to Green Island. Being a chef meant she was able to keep her children with her, a priority in her life as she raised them alone much of the time. Thus, the far north was, for Judy, a haven for her family.

The adventurer's paradise

Lyle Squire, who moved from Townsville in Grade Seven to Cairns, enjoyed the excitement and challenge that came with diving on the Reef. Recreation for him was spearfishing as Lyle's day job in the 1960s was catching live fish for the Cairns oceanarium, owned by his soon-to-be father-in-law. He worked from Cardwell in the south to the top of Cape York Peninsula:

It was a great adventure. Every time we'd go out to a new reef it was something exciting and something we hadn't done. I was always pushing the envelope.

[Lyle Squire, Cairns]

Damien Langley was also a newcomer to the far north. Now based in Wonga Beach, Damien comes from a fishing family in Western Australia and has fished since he was 13-years-of-age, mainly in the Torres Strait. Damien uses the word "addicted" to describe his connection to the Reef and describes the thrill of being a professional crayfisher out of Wonga Beach:

It's the only job that you could come out and at lunchtime you could spit in your hand and it would be yellow because of the blood coming out of your glands, the adrenaline was that much. You could see every vein in every boy's throat and arms and legs.

[Damien Langley, Wonga Beach]

Another person who found the far north to be a place that was interesting, exciting and provided opportunities to pursue outdoors interests was Jennifer Mondora. Jennifer arrived in Cairns at age 12 to join cousins in the activities that Cairns had to offer:

I used to fish and shoot, did the things the boys do.

[Jennifer Mondora, Cairns]

Jennifer married a "mad fisherman" and continues to hunt and fish around Cairns and beyond.

Just as EJ Banfield discovered in 1908, Tony Lee went to Dunk Island to meet with a client one day and thought that it was "Adventures in Paradise". He said:

...by the end of the day I was wet and salty, but felt a million dollars. I just couldn't believe the beauty of the place.

[Tony Lee, Mission Beach]

Tony and his wife settled in Mission Beach where the surrounding islands and reefs were a “fairlyland” for exploration: they discovered the Palm Island Group and the reefs on the seaward side of the islands. He and his wife have been very happy:

Here we have basically a ‘civilised society’. We’re basically prosperous as long as bulk money’s not what you’re after. You have a good quality of life... We never lose car keys because they’re always in the ignition. It’s just lovely and that is a quality of life you can’t speak about. You can’t quantify it. It’s just living.

[Tony Lee, Mission Beach]

Region 2: Northern

The northern region includes the towns from Tully Heads in the north to Cape Upstart, just south of Ayr, in the south. A lot of commercial fishing was based in the northern region and several fishers in this region took part in our study.

Three main themes emerged from the stories about particular places in the northern region: stories of growing up in the north, stories of how important fish were as a source of income and food and the importance of particular places to a sense of connectedness with community. Each of these will be explored in turn.

Growing up in the north

According to the oral histories, life in the northern region was difficult in the Depression decades of the 1930s, 40s and 50s. Several people provided important assistance to the family fishing business as they were growing up, taking time out of school or doing chores after school to help the family. Cecil (Cocky) Watkins was born in Tully and lived most of his life in Cardwell.



Cocky Watkins

During the war, Cocky’s father was away fishing and the family had boats where most other people did not. As a result,

Cocky and his brothers often ran chores and odd jobs on the boat, such as taking pilots out to the larger ships after school:

When we’d come home from school we would have to come home and row out and wet the decks [of dad’s cargo boat] so that they kept swelled so water didn’t go through.

[Cocky Watkins, Cardwell]

Helping dad

Other chores Cocky and his brothers had to do as school children were to dry the sails after wet weather, get firewood and chop it, help their father with fish nets, wash fish bags. “You know you came up in a different era. The kids today wouldn’t know it.”

Fishing with dad was a feature of Cocky's life straight after school, especially when his father lost his arm:

Then we had to take the boat over – my other brother and myself because I was the second oldest... in those days you didn't get government assistance, you didn't get the dole, you didn't get anything.

[Cocky Watkins, Cardwell]

George Betteridge's father also only had one arm and it fell to young George to become a fisher because he was the only boy in the family.

Don Duffy used to go out fishing with his father on a small boat out of El Arish. Like Cocky Watkins, there was little time for recreation:

As soon as I turned 15 I left home and that's when I started professional fishing then. I never ever done any fishing, you know, for pleasure.

[Don Duffy, Cardwell]

Another local who helped his father to catch fish, this time out of Ayr, was Neville Eathorne. Down in the Burdekin Neville's family had a little tin hut with push-out shutters, dirt floor and "a bit of vinyl" in some areas. In the Burdekin River in the 1950s, the sandflies were so bad on the boat that Neville slept sheathed in sugar bags, one over his feet and the other over his head:

And that's how you slept, inside the two bags encased like two pillow slips.

[Neville Eathorne, Ayr]

His father George was a commercial fisher on the river and "it was a family thing to go down and help dad." He recalls that:

As I grew up, the harder jobs got passed down to you. When you were younger you sat in the boat and put the fish in the ice box or pulled up the anchor, simple little jobs like that.... When I was nine, ten, I had to start rowing the boat.

[Neville Eathorne, Ayr]

Neville fished with his dad most often when he was aged between 10 and 14 years. It was the role of the child at that age to help his dad every weekend and have quality time with their father. This singled the children out for special attention for a time, in a family of seven children:

Those four years were my time, then I passed it down to my little brother and away he went. I still went but didn't go every weekend.

[Neville Eathorne, Ayr]

The north as a source of fish

It is not surprising that those residents of the north that were commercial fishers valued the waters around the Great Barrier Reef and beyond as a source of fish. There were so many fish that they were seen as an inexhaustible resource.

While Murray Island was far north of his residence in Brandon, Neil Tabo remembers that there were always "fish everywhere" off Murray Island:

You just throw in from there... you catch fish, any fish, trevally, whatever.

[Neil Tabo, Brandon]

Interestingly, there was a range of attitudes towards this source of fish: Neville Eathorne's father passed on the culture and practice of fishing sustainably and Neville has done this with his children too. In particular, Neville's father sometimes conflicted with the local fishers by arguing that fishers should leave the fish and crabs that were spawning or had eggs so that they could reproduce. His attitude was:

Leave them spawn and there'll be fish aplenty for the next hundred years.
[Neville Eathorne, Ayr]

In contrast, Cocky Watkins' father taught him that spawning season provided a ready and easy supply of fish. He said that:

...to make a living, you had to go to these places to catch them while they were spawning.
[Cocky Watkins, Cardwell]

He recalled:

we used to stop because we couldn't handle any more fish.
[Cocky Watkins, Cardwell]

Over time, the supply of fish reduced and Cocky pondered:

...you wonder where it's all gone. You wonder where it's all gone.
[Cocky Watkins, Cardwell]

George Betteridge ran a prawn trawler out of Ayr until a point in his life when he accidentally collected a whole school of baby grunter, which died when he tried to release them due to the pressure of the masses of fish. This changed his attitude towards trawling:

You tried to take more care with your sounder and sort of make sure you don't put it over a school of little fish...
[George Betteridge, Ayr]

Soon afterwards, George pushed for regulating some areas from Bowen to Bowling Green Bay to reduce the numbers of trawlers and, therefore, the impact on the fish populations:

When I had this trawler we used to have meetings in Bowen, all the trawl boys. I kept bringing up at the meeting why don't we zone the areas? ... They said if that bastard brings that up again we'll hang him.
[George Betteridge, Ayr]

It is not just commercial fishers that rely on the Marine Park as a source of fish. The Reef and the rivers around Home Hill are a source of mackerel and barramundi that supply Maria's Five Ways Fish Shop as well, although in recent times supply hasn't been as regular or as reliable.



George Betteridge

Place and community

The sense of community, for people in the northern region, was incredibly important. This applied not only for those who were born in the local area (such as Neville Eathorne, Joe Linton, Laura Scott, Cocky Watkins and Don Duffy), but also to those who moved to the north later in their lives.

For the born-and-bred locals, the sense of place tended to provide a backdrop to life, rather than being foremost in people's minds.

Adapting the environment

Joe Linton has lived in the Burdekin all his life. Based in Ayr and born in Home Hill, Joe and his family and his father's family have been local for several generations. Joe's family and that of George Betteridge created a community of family holiday shacks at Cape Upstart:

...in those days it was basically a few sheets of iron and a couple of posts to hold it up and somewhere to lay down in between the day's fishing.

[Joe Linton, Ayr]

Together with George Betteridge, Joe Linton's father helped to establish the Molongle Creek Boat Club in 1962 and Joe himself has been a life member. The value Joe places on Cape Upstart is that it is, in essence, a place where you can have "good clean fun". It's not that it's unique in terms of its plants and animals that makes it special, according to Joe, but that it is accessible and connected with Joe's local community.

Brandon, just outside of Ayr, is somewhere that Neil Tabo and his wife settled because they loved it. It was a place they could re-create their culture and be accepted into the community. Neil notes:

Me and my wife, we love it. Since 1973, we still live here. We never shift anywhere. Where the house was in the beginning there was no trees around. We've been planting trees, some native fruit trees around there. A lot of traditional food we plant... all the community here, they love us they tell us.

[Neil Tabo, Brandon]

Impacts of people

Margaret Thorsborne moved to Cardwell in the 1970s but fell in love with the place in the 1960s through camping on Hinchinbrook Island and the Brook Islands. Later Margaret and her husband became involved in environmental causes such as protecting the Torres Strait Pigeon populations. She values the places that are sanctuaries of beauty and wildlife and worries about the impact of more people visiting these precious places.

Indeed, within the oral histories collected for Reef Recollections, there was a tension between increasing populations of people who love a place and too many people loving a place to the point where it affects the qualities that attracted people in the first place. In a reflective moment, Laura Scott commented on the changes in Home Hill and its surrounds:

I sort of feel as the place has become more populated the pristine quality of the coastline has in many ways been damaged.

[Laura Scott, Ayr]

Special places



**Maria Vouyioukas in her
Five Ways fish and chip shop**

For Maria Vouyioukas, place is valued as a focus for community. The community and her family is very important to her and the Reef was considered somewhere that she and the Greek community went on very special occasions such as a honeymoon or a rare day trip when their businesses were closed on Christmas Day:

Once we got there, it was really good, seeing the fish, seeing nature at its best ... We all went as a big group.

[Maria Vouyioukas, Ayr]

Rocky Ponds was a strong focus for the Greek community in the 1970s:

Rocky Ponds was another place where a lot of the Greeks used to go. At Rocky Ponds, I remember ... they had a shelter and all the Greeks would meet there on a Saturday and Sunday and then they would go fishing with the nets at that time and they used to bring back bags of fish.

[Maria Vouyioukas, Ayr]

Rocky Ponds was also popular with the non-Greek locals. Laura Scott enjoyed camping there as a child with her family on holidays. According to Laura:

...it was a great life because the men used to go fishing and we'd always have fish for tea. My mother was a great cook... We just used to roam around the hill there and it was a week of freedom.

[Laura Scott, Ayr]

Region 3: Central

The central region starts at Cape Upstart and includes all of the towns through to Arthur Point. It includes the Whitsundays, Bowen, Mackay and Sarina.

Based on the stories collected in the central region, one might imagine that commercial and survival fishing were a major focus for the residents, especially in Mackay, Sarina and Bowen. In addition to these things, the central region includes the major tourist centre of the Whitsundays. Participants described the attraction of this area for many people because of the opportunity to be part of the tourism industry. Other stories describe the importance of solitude, isolation and unspoiled beauty. A theme that emerged no matter where in the region people were was that they have worked very, very hard to make a living.

Mackay and Sarina

Names

There's not a reef from here to kingdom come that I don't know.

[Jim Edwards, Mackay]

Long-time fisher Jim Edwards' dad had a fishing boat all through the war years. Based in Mackay, Jim started fishing when he'd just left school in the 1950s. His first trip out to Bell Cay was on a boat owned by a family friend and then when he started fishing: "it was all exploring in those days".

Because few of the reefs had been named, Jim and his fishing mates ended up deciding to name the reefs to make life easier for themselves:

I named a lot of reefs myself, all down south there. I used to work with Bunny who ran "Gentle Ben," well they used to always follow me out. I said this is no bloody good, if I'm out there and they want to come to where I am, how do I tell you where we're going? See? We had the charts there, there were no names on them, so we sat down one day and we named them. Anyway they got round and now all the charts have got the names on them...then there was James' Reef, I got one named after me and then we just went through the whole family.

[Jim Edwards, Mackay]

Mainly fishing for mackerel, Jim was one of the first to take reef fish fillets into Townsville. Recently Jim has become semi-retired, taking a trochus boat out from time to time. Fishing, according to Jim, is not a relaxing activity:

It's not pleasure, it's still bloody hard work.

[Jim Edwards, Mackay]

Brian Atherton was a deckhand for Jim Edwards, who named "Bunny Reef" after Brian:

...and probably the best education I've ever had out on the Reef, because he was a pretty wild man and had done a lot of things. ... I was deckhand for Jim and he said to me when we first started, "I'm the boss and if I tell you black is white you will tell me the same thing." So I said "yes Jim" and that was it.

[Brian Atherton, Sarina]

Brian grew up in Sarina and bought a house relatively recently that was built 103 years ago by his Atherton ancestors. He fished all around the islands at the age of seven or eight years with his father. His dad had a 15-foot boat and a trip out to Beverly Island was a big trip for the family. Brian fished from the Swains right up to the tip of the Cape York Peninsula. Later, when he had his own boat, he only hired people younger than 20 years of age, because he valued a laugh and enjoyed the company of younger people. Brian values quality of life. He had both a commercial Reef fishing boat licence and a trawling licence but, when he needed to choose between the two, chose the trawling licence:

And the only reason that we went trawling, it was easier, easier money. I enjoyed Reef fishing a lot more, but it was easier on the trawler.

[Brian Atherton, Sarina]

Brian explains:

Yes on the trawler you are in a bigger boat and it's nice and dark, you don't get burnt in the sun and me being the skipper I got to sit inside a lot. So the deckies had to work out the back. That's probably the only reason I did.

[Brian Atherton, Sarina]

Shell collecting in the central region

Shell collecting is something of a passion for Sarina-based Annette Whitney. As a result, Annette has done her share of walking along beaches. Annette notes that:

I was down on the beach of course... it was marvellous really just to be able to go down on the beach every day which I did.

[Annette Whitney, Sarina]

She values diversity and number of shells. When asked about her first trip, Annette recalls that Bushy Island was a very beautiful place:

Just walking out and seeing all the coral gardens and all the blue cowries that were like stars shining all around the ledges on the island. It was lovely... it was a place where you find lots of cones, bivalves, volutes, stroms, just about everything you'd find out there. It was an absolutely magnificent place.

[Annette Whitney, Sarina]

However, collecting shells was not without its risks. When walking on Prong Two Reef, Annette remembers that: "as soon as I walked on it I knew we were in trouble because each step gave way under your foot." Annette values the preservation of the knowledge of existence of the shells:

If we didn't take it no one would ever know that shell existed and if you leave that particular shell, the next lot of rain or cyclone winds would kill it.

[Annette Whitney, Sarina]



Annette Whitney

Annette knows that the best time to collect shells is during the drought years. While these years are good for collecting shells, they are more worrisome for people who make a living on a farm like Michael Hackett.

Family gatherings

Michael Hackett was born and bred in the bush at Tara Creek, Sarina. Brought up on a cane farm, he became a cane farmer himself until the late 1980s. Michael enjoyed the water. As a child in the 1940s he used to go down to Uncle Joe Hackett's property down at Hacketts Road and catch crabs and fish off the river bank. Campwin Beach was an important focus for family gatherings, especially at Christmas.

The Whitsundays

Someone who fell in love with the beauty of the Whitsundays was John Harper, whose family came out to Australia in 1932 and bought a large patch of land in Airlie Beach in 1938. The family had spent a large amount of time in India and found Airlie Beach the perfect place to settle, close to his mother's relatives in nearby Proserpine:

We were smitten when we arrived in Australia. My father was [from the] Boy's Own Paper Victorian era and he loved the outdoors and all the adventure and so on and so forth.

[John Harper, Airlie Beach]

John himself valued the solitude of the Whitsundays and the opportunity to be resourceful in nature. In the 1940s there were only "shacks along the beach" and his family members were the only permanent residents. While it wasn't entirely pristine and pioneering, it was, according to John, "comparatively unspoiled". John noticed that the area gradually became a tourist destination: first with people with caravans and later boats:

[Now when] you go to Sawmill Bay, go in Nara Inlet, all of the good anchorages are absolutely chock-a-block with people and they are not really there to have a wildlife experience. They are there to drink grog and play music and chase the girls around the boat and jump in the water.

[John Harper, Airlie Beach]

John finds it frustrating that he can only rarely find places of solitude in the Whitsundays:

One of my most precious times has been sailing alone out of sight of land. That gives me a thrill. ...it's absolutely lovely because you are there, you are on your own and you are on the sea and there is nobody within cooee.

[John Harper, Airlie Beach]

John Smith has been in and around the Whitsundays all his life. Born in Proserpine and now living in Bowen, John recalls a life of subsistence while cane farming:

We helped out on the farm, stripped cane, planted cane, when we were kids we drove the tractor and milked the cows and all those sorts of things.

[John Smith, Bowen]

A trip to the beach for John Smith was "something really magic". The Smith family lived close to the beach and the creek, where they would catch crabs on the beach and perch in the creek with a bent pin. John recalls that "if we got some fish hooks, that was Christmas!"

Diving

Tony Fontes arrived at Airlie Beach as a backpacking dive instructor from America, having decided to dive all of the best dive sites in the world that he found in the National Geographic Magazine. After seeing the Great Barrier Reef, he never really left. He values Airlie Beach and the Whitsundays as a dive site and is passionate about protecting the Reef to ensure there will always be a Reef to dive on. His first trip to the outer reef was on "the most uncomfortable boat you'll ever be on." As a result of his experiences, both on the boat and under the water, Tony saw an important role for dive shops within the suite of tourism options in the Whitsundays.

Tourism was hard work in the early days. Tony opened a dive shop and:

...as any self employed person will tell you, when you work for yourself you never stop working.

[Tony Fontes, Airlie Beach]

Tony worked with dive boats to improve the quality of divers' experiences onboard as well as below the water's surface. He recalled that a number of new transportation services emerged in the area after several years that provided better quality experiences for the divers.

Transport

One of the people who developed the new breed of transportation was David Hutchen. After spending 30 years in the Whitsundays building up transport and tourism businesses, David Hutchen is an expert at seeing the potential for tourism opportunity in the Great Barrier Reef Marine Park. David values his ability to change, influence and improve the world around him, particularly being able to bring more people to enjoy a given area. David set up a boat to go to Whitehaven Beach on Tuesdays, Thursdays and Sundays in the early 1980s. Within two weeks, he says, it was "chock-a-block" every day. He then made it seven days a week and now when he visits he sees "150 boats there."

So whether it's good, bad or indifferent, I claim a lot of credit for opening up Whitehaven Beach to the world.

[David Hutchen, Airlie Beach]

David worked hard to develop his reputation for quality and to make his tourism business work:

I think I worked four years without a break. But see, it was a new business... it's all about reputation, acceptance, reliability, good product. People that sell [that] never get a complaint...

[David Hutchen, Airlie Beach]

Environmental damage

After several decades of tourism, there was a noticeable reduction in the quality of reefs around the Whitsundays. It became clear to the operators of tourism businesses as well as the other local residents that action was needed. When Tony Fontes realised that he and his fellow divers had damaged Mantaray Bay through anchors and diving fin damage, he was one of the first volunteers to assist with the Reef Protection program through the Order of Underwater Coral Heroes.

Development

Keith Williams' name is synonymous with development of tourist resorts, especially Sea World on Queensland's Gold Coast and Hamilton Island in the Whitsundays. These came out of Keith's passion for water skiing, tourism and for boats. Hamilton Island was an "absolute fluke" as he discovered its potential when taking a shortcut between Hamilton and Dent Islands on his boat to get to Shute Harbour one day to pick up a friend:

I said "Jesus, Hamilton Island's beautiful!"... anyhow on the next day in the Sunday Mail there was a big article about the fellow who owned it and ... they're selling paradise so the daughter could get better education... It was only worth \$200 000.

[Keith Williams, Port Hinchinbrook]

So Keith bought Hamilton Island in the 1970s and started to develop it.

Roger Kelly and his wife were coral trout and sweetlip fishers in Yeppoon for a few years after sales careers in the southern states. Fishing, though, “was hard work, you know, it’s not a life” and he moved with his wife to Airlie Beach in the 1970s to follow their love of fishing, lifestyle and nature:

Knowing there are 74 islands out there, just a beautiful spot that we could go out in a boat and not stay in the same anchorage twice and I couldn’t think of anywhere else along the east coast you can do that.

[Roger Kelly, Airlie Beach]

The Whitsundays were fun: Roger Kelly recalls that he and a few other people chartered a boat and went out to Hook Island and Hardy Reef back “where there was nothing, no pontoons or anything” and remembers as a prank putting a sign on a triangle marker in the area: “Harry Muller Real Estate For Sale.”

Bowen



Ivan Garrod

need to be out in all weather to be able to catch sufficient amounts of fish. However, Terry believes there will always be fishers: “Fishing is a lifestyle, isn’t it.”

Fish also provided a livelihood for Terry Must’s family, since before he was born. Terry’s father was a fisher and Terry followed in his father’s footsteps. After having a seafood business in Brisbane, Terry “jumped on the back of a trawler” and came up to Bowen as a deck hand. Now’ Terry’s chandlery business on Fisherman’s Wharf in Bowen currently sells products to fishers and buys and sells fish on their behalf.

According to Terry, fishing is difficult business. Fishing is “always work” and fishers

Ivan Garrod made his living by charter boat operation around Bowen and, at the same time, having a job at the local meatworks. Money was tight for a while because there was not a lot of money to be had in taking a group of people out on the boat for the weekend. He tried his hand at trawling and he skippered a tugboat for a while. Over his time skippering charter boats and trawlers, Ivan’s attitude, like many others at the time, was that there was an inexhaustible supply of fish:

...we always thought that it was endless out there. It was you know like whatever you’d caught, it was just going to be there every time you went out there.

[Ivan Garrod, Bowen]

A different perspective

Glenda is a woman with an eye for the unusual. On the beaches in Bowen, Glenda likes to collect interesting things from the beach, such as driftwood and shells and make them into incense holders and other useful and interesting pieces. “If it’s got a different shape, I like it.” But for live shells, Glenda shows her children but leaves them on the beach:

I figure they’re there for a reason. They’ve got to breed up otherwise there’ll be no shells for future generations. The same with fish.

[Glenda, Bowen]

Glenda's attitude to fish is to "leave them be". She notes that her attitude is different from that of her fisher father and his mates in the late 1960s:

I know now they're not to take [gropers], but back then they didn't seem to care what they took or didn't take.

[Glenda, Bowen]

Region 4: Southern

The southern region of the Great Barrier Reef Marine Park starts at Yeppoon and includes Gladstone and Bundaberg in the south.

Yeppoon and Gladstone are known for their fishing and the local residents are as passionate about catching fish as it is possible to be. Many oral histories showed that people in Bundaberg and Gladstone have strong memories of growing up in and around the water. For others, the pull of the Reef created a lifelong passion to be near it ... rather dramatically at times.

An affair to remember

For me, I hadn't seen a photograph even of what it was like in the ocean so it was quite an impressive experience that sort of had its effect on me... But everything was so exciting and you saw things and didn't know what they were. That was the beginning of course.

[Gordon La Praik Sr, Emu Park]

Gordon La Praik (Sr) was born in Rockhampton and spent most of his life around central Queensland. He had his first snorkel dive in Keppel Bay in the spring of 1955 and it captivated him. The quote from Gordon above is typically understated and describes the beginning of a lifelong passion for the corals of the area. In contrast, Robert Wood has a more direct way of describing the pull of Bundaberg for him:

I moved to Sydney and I lived there for I think it was 23 years or something and I hated it the whole time I was there and I couldn't wait to get back. The only reason that I came back was for the Reef.

[Robert Wood, Bundaberg]

Robert saw the Reef at Lady Musgrave Island and was taken with its beauty. He values the beauty, his family and fishing as a way of relaxing and also providing him with food:

Mainly over the last 20 years my whole thing has been based around fishing and fishing populations. Even when I dived I wasn't looking for coral, I was looking for fish... But the fishing wasn't the whole lot of it, it was more so the islands that sucked me in, the beautiful clear water and the Reef. I was hooked once I seen it and I think that's why I live here and that's why I do it today.

[Robert Wood, Bundaberg]

The social interaction that Roger Kelly and his wife had with locals in Yeppoon as newlyweds led to a new career in commercial fishing. Roger's commercial fishing life focused on line fishing for coral trout and sweetlip and he developed and used some sophisticated lures and wogs to do this. On the days where he couldn't fish or they decided to have some time off, Roger and his wife would anchor in a sand cay and walk around looking at the birds and animals and shells, always putting them back after admiring them.

Similarly, Mike Prior moved to Yeppoon in the late 1940s and found that the Great Barrier Reef transformed his life. According to Mike:

I got a taste of the sea and consequently spent a good part of my life out there on the water.

[Mike Prior, Yeppoon]

Mike values seeing new things and being able to contribute to society. As well, Mike is passionate about the sustainability of the reef so that future generations can enjoy it:

The Reef to me was a revelation. I can still remember waking up after my first night out there and getting out on deck and looking around and seeing nothing but water... The fact that you are out there over 100 miles from shore and dependent on a reef surrounding the boat that you couldn't even see at high tide to protect you from the elements.

[Mike Prior, Yeppoon]

Lionel Bevis believes the Great Barrier Reef to be central to his development professionally and personally:

I see the Reef as being the backdrop to my whole working life.

[Lionel Bevis, Yeppoon]

Lionel spent much time in the whaling industry around Tangalooma and then moved to work on cargo boats around the Gulf of Carpentaria:

By 1957 I'd had enough of whaling. I wanted to make a go at the boats.

[Lionel Bevis, Yeppoon]

Working on a prawn trawler in the late 1960s, there were some differences in approach between the small Australian trawlers and a large-scale Russian operation:

But the Russians sent one of their big factory ships out there and they cleaned up all the prawns that season and there were shots fired. The Aussies are out there in their little rowboats sort of thing, you know, their little 40 to 50 footer... it was real cowboy and Indian stuff.

[Lionel Bevis, Yeppoon]

Lionel spent most of his life in reach of the Great Barrier Reef. For people in the next section, it was the formative years of children that shaped their love of the Reef.

Children and childhood



Alan Cochrane has lived in Bundaberg since he was five. Most of his education was informal:

...on the banks of the river with Aborigines wagging it from school so we were chasing brumbies out the back of the aerodrome, bareback... wherever there's water you found me: by horse, by pushbike, by foot.

[Alan Cochrane, Bundaberg]

As a child Alan started fishing when he was five-years-old, catching bream and mud crabs with a wacko: a cane fishing rod about three metres long with a bit of fishing line, a cork and a hook.

Peter Mulhall was born in Bundaberg and moved to Burnett Heads almost 50 years ago. He values family and fishing and Burnett Heads is the perfect place for Peter to pursue these passions. Peter was brought up in the house that he now lives in and he brought his children up in the same place. Peter's son Timmy caught the fishing bug from his father and the whole family has a history of commercial fishing, even the ones that came from Canada many years ago. The beach out the front of Burnett Heads has now become reclaimed land but Peter's family used that beach a lot in the early days as a focal point for their activity:

When it was just a nice little beach we used to swim there, fish there, everything was done off this little stretch of beach.

[Peter Mulhall, Burnett Heads]

Peter remembers vividly the sounds of the fishing boats going out to work in the 1950s when he was eight-years-old:

All the old guys had their boats anchored. They just left their boats in the bay. They'd be high and dry at low tide... when the weather was right you'd hear putt, putt, putt, putt and away they'd go. We used to get a lot of big mulloway, big jewfish out the front here and when the tides were right it would be a procession with these old boats going out to the Jew Hole.

[Peter Mulhall, Burnett Heads]

Robert Wood, a Bundaberg local, can remember the major populations of coral trout all along Hoffman's Rocks and Innes Park in the early 1980s and he spent a lot of time as a child snorkelling and spearfishing. But the Reef fish such as clown fish (anemone fish) he hadn't noticed until recently as a result of his children:

... my kids are into Nemo and all that sort of stuff so they snorkel with me and they know what they're looking for... I didn't even know they were there years ago to tell you the truth because I wasn't looking for them, I was looking for stuff to eat.

[Robert Wood, Bundaberg]

Further north, Geoff Breslin's family have been in Gladstone since the 1860s. Geoff was taught to fish by his father in Auckland Creek:

He made me go on the end of a bait net when I was eight years of age in Auckland Creek and I caught a javelin who's about eight pounds and I haven't stopped fishing since.

[Geoff Breslin, Gladstone]

Mapping and classification

One of the ways several participants felt connected to the Great Barrier Reef was through mapping, classifying and naming elements of the Reef, whether it be the whole of the Great Barrier Reef, a reef or a cay, a shell, or a near-microscopic organism that lives on corals.

Jim Wardell always performed his duty to the best of his ability and he approaches life seriously. This is important because over the years he has been responsible for many lives and the contents of many cargo ships around the world.



Jim Wardell

Based in Yeppoon and Emu Park nowadays, Jim has spent time in Townsville and Toomulla. Jim took his family sailing around Palm Island, Hinchinbrook Island, Dunk Island and the Family Group while they were living in Townsville. Formerly in the merchant navy, Jim was involved in charting, over a period of three or four years, the area from Marble Island just north of Port Clinton through the Cumberland Islands, Whitsunday Islands and Whitsunday Passage and almost as far up the coast as Townsville.

Another time, the government asked his ship to map out the Continental Shelf right along the coast while testing a new navigation system:

The vessel would run from the coast out until they came over the Continental Shelf and position it, turn around and run another line back in. So it went right up the coast for six months and that was from Coolangatta up to the northern end of Breaksea Spit which runs north of Fraser Island.

[Jim Wardell, Yeppoon]

Mike Prior, together with local identity Wally Muller, named a lot of the reefs around the Swains, such as Perfect Lagoon ("The most perfect lagoon in the Swains") and Mystery Reef, which puzzled Mike and Wally because they'd not seen it before ("So I said "well it's a bit of a mystery" so we called it Mystery Reef"). Mike values seeing new things and had the opportunity to work charter boats and explore the reef with a range of clients including a group of people from National Geographic magazine.

Yeppoon is the home of Shell World and Ena Coucom, who was central to its creation. Shell collecting was a revelation for Ena, especially as she came to understand the classification systems for each of the shells.

Gordon La Praik's early experiences in the 1950s with diving and discovering coral were the beginning of a lifelong passion for exploring the relationships between the Reef's tiniest inhabitants: coral polyps and the life that grew on these host polyps. In particular, Gordon took thousands of photographs and extended scientific knowledge of the classification of these gorgonian corals – all in his spare time and without formal recognition:

It was an intense interest that had captured me to understand not only that these little molluscs existed but I wanted to know how they existed, what they lived on, how they reproduced. So I spent 14 years finding out. I'd set up aquariums at home. I built camera housings. I bought cameras to record all the things that I found.

[Gordon La Praik Sr, Emu Park]

Attracting and catching fish

Fishing is a theme that runs through stories the length of the Great Barrier Reef. But nowhere is that passion more evident than in the southern region. Geoff Breslin captures the essence of this with the following description:

I mean to say the thrill of catching a fish, I have to say, you're hooked. That's what brings us all undone.

[Geoff Breslin, Gladstone]

Gladstone-based Neville Robertson-Hughes enjoys the experience of fishing, especially at Urangan Pier, because it provides him with thinking time:

It's to do with the solitude and you get to sit down and have some peace and quiet away from every damn thing. It's beautiful down there on a nice night. If you catch a fish it's a bonus.

[Neville Robertson-Hughes, Gladstone]

Nowadays it can be difficult at times to catch a fish or get a feed of prawns, but in the 1970s prawns were not in short supply in Gladstone. O'Connor's Wharf was the place that the prawn trawlers used to tie up after a fishing trip. Patsy Lee takes up the tale:

... and one damn night just on dark, we all went down to see them and they had that many prawns the whole wharf was full of prawns, all along. They'd just emptied them on the wharf. People come down and bought them... you'd get them for two dollars a bucket if you wanted any.

[Patsy Lee, Gladstone]

While this fishing passion has been covered well elsewhere, an interesting side theme emerged from the stories around this area: what attracts fish and where they can be found.

Attracting fish

As he became involved with SCUBA diving in the Bundaberg area, Alan Cochrane discovered that it was difficult for many divers to travel far enough out on the Reef to get to the "exotic" dive sites like the Beauford Bomber, Evans' Patch and so on. He was keen to dive wherever and whenever he could. Alan notes:

I can dive in a blocked-up toilet and you can still find something that's worthwhile looking at.

[Alan Cochrane, Bundaberg]

However, the dive sites close to shore were relatively few and not very interesting, according to Alan. This prompted him to develop the Cochrane Artificial Reef in the 1990s which became an important fish-attracting device close to shore and, therefore, a good dive site.

Michael Kirlew believes it is important to keep the mind active. Based in Gladstone, Michael has travelled extensively on the sea through being involved in electrochemistry. One of the things he has noticed is the effects of putting electric current in the water on the plants and animals. The Lucinda jetty, for example, has a lot of direct current going into the water and he believes this has disturbed the sharks in the area. The impact of current on the jetty's shark population has parallels with a story of Geoff Breslin's.

Geoff recalls that in the 1950s the meatworks wharf was "teeming," most months of the year, with tailor and golden yorkie but they would disappear for a month or six weeks at a time. His theory was that they were attracted to the vibrations of the turbine, the humming of the pump station. Later, the meatworks closed down and the wharf at Southtrees was built. Geoff recalls:

All the bait shifted to Southtrees, to the new growth on the piles... masses and masses of tailor and yorkie shifted there.

[Geoff Breslin, Gladstone]

What lies beneath

The wharves were commonly known as places to attract fish. But other things lurked below the water line as well. Gordon La Praik's passion for studying underwater creatures was at odds with his family's values:

They always thought that if you jumped in the water something was going to eat you... I used to say, well, it's only dangerous when [sharks] are gnawing on your leg. Up until then it's all in your head and that's where you have to live.

[Gordon La Praik Sr, Emu Park]



Graham Humphries

Graham Humphries has made a life out of discovering what lies beneath the surface of things. Based in Gladstone as a commercial diver, Graham knows the secrets of Auckland Creek:

So the Auckland [Creek] is a lot different than it looks on the surface. I've found some very interesting reef features in there. I've found brightly coloured purple nudibranchs... There's quite a lot of sea life on the sea floor on the Auckland [Creek] which hasn't been recognised because nobody ever goes there.

[Graham Humphries, Gladstone]

In addition to the sea life, the river has become a repository for a lot of junk: Graham and the Local Marine Advisory Committee had a project to clean up the river for a few years:

There was everything there: furniture, radios. In fact you name it - bicycle, filing cabinet, a lot of rubbish, wood, deck spas, wires.

[Graham Humphries, Gladstone]

Protection and threat

Graham Humphries has seen some changes around Heron Island that he believes is as a result of sewage and chemical use. In the 1980s, Graham visited Heron Island for the first time and described the marine life as “absolutely phenomenal”. Ten years later, he saw:

... enormous round, sort of black, gungy hole[s] or patch[es]. ... I think it was “nothing,” spreading, is the best way to put it.

[Graham Humphries, Gladstone]

Graham’s concern about people’s impact on the Reef is reflected in a number of stories about the Reef in the southern region.

Alan Cochrane learned a lot about nature from his friends and values fishing as a way of collecting food. He says that the first thing he learnt about water was “to respect it and fear it and try to protect it.”

Ena Coucom values shell collection and family and, as she experienced life in Queensland during the war and post-war periods, also values the ability to be resourceful. Ena’s approach is to take only what you need and this was sorely tried when campers next to her family were catching too many fish:

But they were taking away masses of fish, so that’s a thing you don’t like to see.

[Ena Coucom, Yeppoon]

Likewise, Patsy Lee was born in Gladstone and her family “all belong to Gladstone.” Her values are very strongly tied with fishing: fishing for food, for recreation and observing regulations to protect fish populations. Patsy would fish for “anything that comes on the hook” and her family members have been keen fishers for a very long time. Patsy has a strong sense of what is right and wrong, such as commercial fishers setting nets rather than line fishing:

I don’t reckon it’s right, because that’s why there’s not a lot of fish around, even in our harbour.

We used to go over to the Farmers Point, catch bags of fish. Now, you can’t catch a fish.

[Patsy Lee, Gladstone]



One of Patsy's favourite fishing spots was named after her

Tourism and community

While tourism and community are each strong themes throughout the Reef Recollections oral histories, there are some elements that are specific to the southern region.

Neville Robertson-Hughes came to Gladstone with two mates in the mid 1960s in search of adventure. This was in the middle of a mining boom and there was no accommodation to be had in the town:

So if you've been around town and out to K-Mart, where McDonalds is there is a big park there. Now that used to be a tent town. Everybody that couldn't find accommodation ended up at Police Creek... someone gave us a fly of a tent and that was our home for about the first two months.

[Neville Robertson-Hughes, Gladstone]

In Gladstone at that time, there were many young men and very little to do by way of amusement. People got up to mischief, often ending up with a stint in the local jail, but there was also a fledgling tourism industry. On Quoin Island, according to Neville:

There was a fellow by the name of Lou Allen who used to live on the island... he'd built a house out there which was built out of local stone... and it was a sort of very, very beginnings of a tourist resort and you could go out there and stop there for a couple of nights if you wanted to.

[Neville Robertson-Hughes, Gladstone]

Neville said that the other destination for those with time on their hands was South End, where people had fibro shacks for weekenders “for a long, long time” and they would go over there to “do a bit of fishing off the wharf.”

While his day job was driving charter boats in a fledgling tourism industry off the coast of Yeppoon, Jim Wardell supported his family by supplementing the family income with mackerel fishing:

Through the week there wasn't anywhere near the tourism that is up there now, of course, so through the week to make ends meet we used to fish for mackerel when the mackerel were running and bottom fish all around the reefs out wide for trout and emperor and sweetlip and stuff like that.

[Jim Wardell, Yeppoon]

Holiday time for Ena Coucom involved camping, often on North West Island. She had an ever-improving system for allocating jobs to make the trip run smoothly. Family was important on these gatherings and the group gradually increased in size:

We never, ever got bored and, of course, as the years went on, we gathered more people. I mean, we started off with just the family and then it was another family came with us... then added on to that we had these friends from New South Wales that came up every year... and then one year they brought one of their grandsons...

[Ena Coucom, Yeppoon]

Lionel Bevis is a man with a strong commitment to community. Based in Yeppoon, Lionel proudly announces:

I've always been a community involved person. It goes with my family. If you're a Bevis, you're involved in the community.

[Lionel Bevis, Yeppoon]

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Reflection

Changes in and around the Reef

There were four main themes that were explored in Reef Recollections oral histories: Reef change; activity change; community perspectives; and place.

Reef change

In the first theme, many people discussed the impact of natural and human activity on the environment: rain and flood changed the boundaries of rivers, washed out debris, rubbish and chemicals; and deposited sediment and sand in the Great Barrier Reef Marine Park. These activities impacted on fish numbers, where pollution and fishing activity reduced the number of fish, while prawn numbers increased after fresh water, rain and flood.

Many people saw the appearance and disappearance of schools of fish as natural phenomena, while a recovery of fish stocks in recent times was observed as a result of zoning and bag limit changes. People told stories of how natural and human activity also impacted on corals and other animal species: coral bleaching and crown-of-thorns starfish populations were affected by cyclones, floods and visitors. Some of the older locals commented on the resilience of the coral populations, sometimes over a few years but often over a period of 40 or 50 years in some parts of the Marine Park.

The theme of regeneration of fish and of corals featured strongly in many people's recollections. In particular, the species that showed a decline and then a re-emergence included whales, Maori wrasse, dugong and mackerel. Other people described declines in species but no resurgence, including turtles, prawns, crabs, red emperor, coral trout and shells.

In general, stories related a story of bounty, which declined with increasing commercial and recreational activity. Where this has been regulated, according to the oral histories, stocks of these species are regenerating.

Changes in activity

The second theme explored changes in activity on the Great Barrier Reef. Decreased bait fish stocks and reduced numbers of prawns have led to fewer prawn boats and changes in practices in order to continue the profitability of the fishing industry. People described new technologies, increased scale of activity, bigger boats and improved efficiency of fish processing. A number of recollections included the theme that, in recent times, people have relied on technology rather than skill to catch fish. According to our local residents, some people "flogged the Reef" by over-fishing it, while others used to rotate the places they would go in order to rest the fishing

spots and allow fish stocks to recuperate. The trigger for change seemed to be when the stocks of fish dwindled. If there was competition to make profit or to survive, that this made the situation worse and people demonstrated less sustainable approaches. While regulations on trawlers reduced over-fishing, they increased the paperwork that needed to be completed by commercial fishers and trawlers. More black market fishing and illegal (overseas) boats were reported, although there was some mention of this in all decades.



Amateur fishing catch, c.1970s

With respect to recreation, there was a shift to sports fishing, bigger boats and diving, while some local residents commented that impoundment fishing has reduced the pressure on reef fishing. Catch and release fishing has increased in popularity which led to a reduction in wasting the catch (i.e. dumping dead fish if a fisher has caught too many). Recreational shell collecting shifted in emphasis to be more sustainable and it was limited in recent years because people are not able to collect as many shells from the Marine Park. Diving equipment technology has improved, while tourism has shifted from small-scale demand-driven local operations to new markets, sophisticated targeting of product and larger operations. This has

increased the focus on creating experiences and building infrastructure such as an artificial reef or coral viewing platforms.

Community perspectives

The third theme looked at community perspectives of the Great Barrier Reef and the role they played (and continue to play) for local communities. There has been substantial population growth in most local areas and a shift from subsistence lifestyles to more affluent ones. Therefore, in earlier days many people relied on fish as a major source of food, while now fishing is more a recreational sport for many people. Some of our local residents noted that there has been more disposable income to buy larger boats, but less time has been spent within people's communities after the 1950s, 1960s and 1970s. In the 1960s there emerged a whole raft of interest clubs, such as for shell collecting, diving and fishing. This coincided with more spare time and provided a way of sharing limited resources such as boats to provide access to the Reef. This pattern continues today but membership has declined in many of these clubs as people are able to afford their own equipment and boats.

Uniqueness of the regions

The fourth theme explored stories and recollections that were unique to each geographical region. Residents of the far north referred to their home with familiarity and the connection between place and people was very strong. The far north was also seen as a safe haven or wonderland, providing a source of escape, safety, beauty and health. Another theme that emerged here was that the far north was an adventurer's paradise, especially in terms of diving, fishing, boats and crocodiles. The northern region stories were characterised by a love of the place, a sense of belonging and of community. However, this was tinged with the recollection of how hard people had to work, from the Great Depression and beyond, to survive. Fish supported the family and life was hard. Fish supplies were seen as unlimited by many people, while others valued the need for sustainable practices: a tension and difference in attitudes that polarised local residents.

In the central region, recollections focused most specifically on working hard and long hours, especially with respect to commercial and survival fishing and tourism. The sense provided by

many people in this region was that it was important to provide high quality service in tourism and this improved markedly over the last 50 years. Finally, the southern region had the strongest focus on childhoods being centred around activities on the Reef. The Reef was the backdrop to life and the southern region had an attraction that pulled people back again and again throughout their lives. The southern region also had scientific themes, including mapping, classification and research. There was, too, the thrill of attracting and catching fish, which went hand-in-hand with protecting the Reef and its fish populations.

Stories across the Reef: availability and regulation

Across the themes discussed in this report, it is possible to observe three major stories that are played out in the 50 or so recollections collected from local residents up and down the Great Barrier Reef Marine Park. The first was availability and regulation. In early days, there was a bounty of fish, of wildlife, of resources and so on. People discovered, accessed and made use of this bounty. Over time, the use increased and became over-use through non-sustainable practices and the Reef and associated resources were damaged.



Neville Robertson-Hughes

This led to decreasing availability of resources and an imbalance in the system. For many resources, the introduction of regulation and monitoring resulted in an improvement in the availability of these resources. The regulations, while creating the opportunity for natural resources to regenerate, caused restrictions on many people's livelihoods. Thus, ambivalence toward monitoring was shown in many of the stories, together with a strong sense of lament over the "good old days" when life was simpler and fish and corals were more bountiful.

Stories across the Reef: activity, community and tradition

The second story related to activity, community and tradition. Many recollections related to the strong focus of family, community and traditional practices that centred around the Marine Park. These included enjoying the beach with the community and going fishing with family. Changes in family and community circumstance over time meant that traditional practices shifted to accommodate less leisure time, more financial stability, increased regulation and limited availability of many natural resources. Therefore, the ways that communities and families relate to each other have changed. Many local residents recollected the times in the past when they had enjoyed their family time together, feeling nostalgic for past times.

Both of these stories and the memories people recollected, have in common the feeling that times gone by were quite different from and better than the present day. As described in the literature review on memory, people can often recall events, feelings and situations in a positive light because they imbue meaning into these things as the memories lose their intensity. As people age, they recall days when they were younger with wistfulness and with a soft filter over the harsher parts. In contrast, the third and final story that is told relates to improvements over time.

Stories across the Reef: work and livelihood

The third story common throughout the report is that of work and livelihood. Life is, was and will be difficult if a person relies on the Great Barrier Reef for their income. People worked extremely hard to make ends meet, to find enough food to survive, or to make enough money to create a better life for themselves and their families. Over time, people's stories reflected an increase in standards of living: people's lives are not as harsh as they once were.

Shifting baselines

As this data is qualitative in nature, it is not possible to quantify an answer to our prediction about whether or not peoples' memories of the Reef are dependent on their own baseline of when they first experienced the reef. Local residents' memories were, in general, consistent with others' and they did in general describe changes over time. However, there was one important difference in memory patterns that emerged from the stories throughout the Marine Park. People who relied on the Marine Park for their livelihood for fishing or other extractive purposes tended to have more positive views about the numbers of fish over time (and a corresponding minimisation of the impact of their activities on these populations), while there was a trend that those who used the Marine Park for recreational, diving or tourism purposes painted a less positive picture.

It would appear that local residents' memories were coloured more by how they used the Reef (such as for commercial or recreational purposes) than by which decade they happened to be introduced to the Reef for the first time. Despite the weakness of qualitative evidence supporting the idea of shifting baselines being meaningful for our local residents, the information provided will be useful for scientists to gain a picture of what the Reef was like before formal scientific data was collected. Descriptions of "acres of fish" and "so many prawns the coast was like red lead paint" and so on can provide a deeper understanding of the relative amounts of various species that existed in earlier times. The report describes people's memories and explanations of sudden changes in coral quality around wartime due to the use of explosives to blow up the fish and the sudden increase in crown-of-thorns starfish outbreaks as their predators were fished out in certain areas.

Management

While the concept of shifting baselines is an interesting one that has oblique references within this report, there is an even more important management implication that emerges as a result of local residents' recollections. People's attachment to the Reef, the Marine Park and their lifestyle – both commercial and recreational – is very strong. People are very involved in the Marine Park and they notice and are affected by any changes that happen. What this means is that there will be supporters and critics of any new initiatives, but the best way of maximising people's acceptance and support of new governance arrangements is to keep them involved in the decision making. The report might be able to explain, for example, why the closure of one particular wharf might cause the whole of a community to be in uproar, if it is the closure of the final public access wharf in that town that could be used for fishing. The value of this report is that it uncovers some of the secrets and folklore of small communities along the Queensland coast. The stories it contains can be preserved and used to deepen our understanding of the richness of the connections local residents have with the Great Barrier Reef. Without the Great Barrier Reef Marine Park and the wonders that it contains, many of the stories of the people who shared their histories here would not have been told. It is the ultimate story of life, of community and of adventure.

Methodological comments

As described in the method section, the collection of oral histories yields important information that can be used in a variety of ways. It keeps the memories and histories of particular towns, regions or areas alive and it respects the role that locals played in the creation and maintenance of community. A project such as this can be useful for recording the diverse attitudes, feelings and behaviours of people towards specific things such as dugong or coral reefs. It can map changes in the range of these attitudes and behaviours over time, deepening our understanding of the causes of change and the responses towards natural phenomena.

The project cannot, however, provide "scientific" data that will explain categorically, why things are the way they are. They provide anecdotal but not "hard" evidence for particular phenomena. The strength of a qualitative study such as this is in its ability to develop an

understanding of what particular people believe happened at particular points in time: it is data that mines a few individual stories to a reasonable depth. However, its strength is also its weakness: some people's stories will have more factual accuracy than others. The data, then, relies on the ability of people to recall things accurately. As described in the method section, memory is mostly a subjective recollection of events that are imbued with personal meaning. The fact this study has so many stories from so many people provides some weight to our findings where layers of stories agree with each other. Where they differ, however, it is important that these stories are seen as a way of representing diversity of opinion.

It is unfortunate that two Traditional Owners in the southern region withdrew their oral histories, due to events unrelated to Reef Recollections. The information contained within their histories would have contributed a stronger Indigenous voice to the project.

Future directions

In a project such as Reef Recollections, the research generates an ever-increasing number of additional research questions. It is not the intention in this section to describe or to list these new questions because a list of that nature will restrict further questions from being asked. Instead, it is suggested that there is one main piece of work that would be useful in the first instance to build on that collected here. It is proposed that there needs to be a collation of the current scientific understanding and data, together with the oral history information. This would extend the time perspective of the scientific data to earlier decades and would identify subject areas for scientific data gathering in the future. This is useful work because it informs future community-based and scientific data collection activity.

An example of how social and natural science data can work together is provided here. Several years ago social science research identified that public perceptions of the Reef's main threats were not aligned with what the scientific community knew to be the main threats. This stimulated an education campaign designed to increase community awareness of the main threats to the Reef. Recent household surveys have shown that community attitudes have aligned more closely with scientific understanding. As demonstrated here, work has commenced in connecting the qualitative and quantitative social science with hard biological data, but there is much yet to be done.

Final words

The Reef Recollections project covered a large geographic area. People from whom stories were collected in the main were recruited to the project from smaller towns along the Queensland coast. Some towns were passed over because it was felt that they had had this sort of research conducted before, while others were considered seriously and then discarded for practical or other reasons. It is not intended that this project and the histories contained within represent the views of all people, nor do they describe the stories from all towns and cities along the Great Barrier Reef. However, we hope that you, the reader, find the stories contained within and the lessons and themes that emerged as a result of the project to be useful, interesting, entertaining and stimulating.

