An exploration of thresholds of tolerance for changes to sanctuary zones among repeat tourists: A case of Ningaloo Marine Park.

Natasha Nicholson

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An Exploration of Thresholds of Tolerance for Changes to Sanctuary Zones Among Repeat Tourists: A Case of Ningaloo Marine Park.

By

Natasha Nicholson

Bachelor of Leisure Sciences

A thesis submitted in partial fulfilment of the requirements for the award of Bachelor of Leisure Sciences Honours

Faculty of Business and Law, Edith Cowan University
Date of Submission

December 2007
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Abstract

As environmental issues become more prevalent in today's society, natural area managers must find ways to balance the increased popularity of natural areas for recreation with environmental protection and conservational goals. One popular method to achieve this balance is through restrictions. Sanctuary zones are one type of restriction and are generally designated areas that prohibit extractive uses of natural resources, such as fishing. This study qualitatively explores the issues that affect a repeat tourist’s tolerance threshold for changes to their recreational activities caused by restrictions within the Ningaloo Marine Park. This study seeks to assist natural area managers to make better and more informed decisions by understanding a repeat tourist’s threshold for change.

Initial exploratory and descriptive research was deemed appropriate for this research project because there is little empirical data on a repeat tourist’s tolerance threshold to change. The study took place in the Ningaloo region, Exmouth, where potential participants were identified and approached. Semi-structured interviews were used to gather in-depth information from participants, which were audio-recorded and later transcribed for coding.

The key results and findings are presented in four sections. These sections are: current recreational pursuits, social environment, natural environment and management techniques. The sections each have two or more defined sub-sections, which explain the findings and present relevant quotations from the data collection. The first section focuses on the current recreational pursuits of repeat tourists and begins by outlining demographic information about the study participants, which were established during the interview. It then discusses reasons for visitation, the importance of travel, proximity and access, and localisation. The focus of the second section is upon the social environment. It examines the impact of tourism on the repeat tourists’ threshold of tolerability to change and their perceptions of themselves as tourists. Issues surrounding the natural environment are explored in the third section. It describes the growth in environmental awareness and the importance of the wilderness experience. The final section discusses the management techniques of the
Ningaloo region and addresses issues surrounding restrictions and interpretation as well as the conflict between stakeholders and tolerance to sanctuary zones.

One of the major themes that emerged from these areas was the importance of individual localisation, place attachment and intrinsic benefits. Localisation was enhanced by a sense of place and contributed to a perceived ownership towards the environment. Any restrictions affecting a repeat tourist’s localisation and diminishing their perceived intrinsic benefits would encounter negative responses to change and, thus, tolerance. The repeat tourists’ recreational activities also encompassed the natural surroundings, making the wilderness experience essential to the overall enjoyment and intrinsic value of the Ningaloo region.

Some repeat tourists did not view themselves as tourists, and managers must take this into account when consulting stakeholders about sanctuary zone changes. There are also negative connotations linked to commercialisation and development as well as frustration with the perceived lack of cooperation between management groups. If managers understand the issues that affect a repeat tourist’s tolerance threshold then they can make educated decisions about restrictions and sanctuary zones. Managers will be able to predict the potential responses of repeat tourists, hence enabling a balance between repeat tourist satisfaction and conservational goals.
# Contents

COPYRIGHT AND ACCESS DECLARATION  II  
DECLARATION  III  
ACKNOWLEDGEMENTS  IV  
ABSTRACT  V  
CHAPTER 1  1  
INTRODUCTION  1  
   1.1 BACKGROUND TO THE STUDY  1  
   1.2 RESEARCH PROBLEM  3  
   1.3 STATEMENT OF PURPOSE  3  
   1.4 RESEARCH OBJECTIVES  4  
   1.5 CONCEPTUAL FRAMEWORK  4  
   1.6 JUSTIFICATION AND SIGNIFICANCE OF THE STUDY  7  
   1.7 DEFINITION OF TERMS  7  
   1.8 STRUCTURE OF THESIS  9  
CHAPTER 2  11  
LITERATURE REVIEW  11  
   2.1 INTRODUCTION  11  
   2.2 ENVIRONMENTAL CHANGE AND AWARENESS  11  
   2.3 NATURE-BASED TOURISM AND THE WILDERNESS EXPERIENCE  12  
   2.4 PROTECTED AREAS  15  
   2.5 RELATIONSHIP BETWEEN PROTECTED AREA MANAGERS AND RECREATIONISTS  17  
   2.6 RECREATION OPPORTUNITY SPECTRUM  18  
   2.7 EDUCATION AND INTERPRETATION  20  
   2.8 PLACE ATTACHMENT AND INTRINSIC MOTIVATIONS  21  
   2.9 TOLERANCE THRESHOLDS OF RESTRICTIONS  24  
   2.10 SUMMARY  25
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

5.2 SUMMARY OF RESULTS AND FINDINGS
   5.2.1 Localisation, Place Attachment and Intrinsic Motivations
   5.2.2 Perceptions of Tourism
   5.2.3 Environmental Awareness
   5.2.4 Education and Interpretive Information
   5.2.5 Tolerance of Sanctuary Zones
   5.2.6 Revised Conceptual Framework

5.3 RECOMMENDATIONS FOR PROTECTED AREA MANAGERS

5.4 LIMITATIONS

5.5 RECOMMENDATIONS FOR FURTHER RESEARCH

REFERENCES

APPENDICES

APPENDIX A: MAP OF NINGALOO MARINE PARK
APPENDIX B: SEMI-STRUCTURED INTERVIEW FRAMEWORK
APPENDIX C: LOCATION OF CARAVAN PARKS
APPENDIX D: RESPONSE CHART
APPENDIX E: SCENARIOS MODELS

LIST OF FIGURES

FIGURE 1.1: THE CONCEPTUAL FRAMEWORK INFORMING THE STUDY’S FOCUS (HIGHLIGHTED IN RED AND BOLD).
FIGURE 1.2: THE RELATIONSHIP BETWEEN THE DEFINED TERMS.
FIGURE 2.1: THE RELATIONSHIP BETWEEN SELECTED TOURISM TYPES WITHIN THE TOURISM CONTEXT
FIGURE 2.2: THE WILDERNESS CONTINUUM
FIGURE 5.1: MOVEMENT DIFFERENCE BETWEEN LONG-TERM AND SHORT-TERM REPEAT TOURISTS.
FIGURE 5.2: REVISED CONCEPTUAL FRAMEWORK
LIST OF TABLES

TABLE 2.1: RECREATION OPPORTUNITY SPECTRUM 19
TABLE 4.1: PARTICIPANTS 35
TABLE 4.2: SANCTUARY AWARENESS AND TOLERANCE TO CHANGE 67
Chapter 1

Introduction

1.1 Background to the Study

The growing popularity of the Ningaloo Marine Park (NMP) has highlighted the growing need to protect the environment from visitor impacts. Protection in many cases involves the use of restrictions, most notably sanctuary zones, to control negative impacts. However, it is also important to sustain the social well being and economy of the NMP and surrounding area by balancing environmental protection with visitor satisfaction. By understanding repeat tourists’ tolerance threshold and decision-making process, management can be better informed to achieve this balance. There has been little qualitative research that has investigated repeat tourists’ behaviour and their attitudes towards restrictions, particularly regarding what they find acceptable in terms of changes to destinations, such as creating a sanctuary zone in an area that was once available for general use. This study seeks to redress this gap by examining the sanctuary zones employed at the NMP.

The NMP covers the largest fringing coastal reef system in Australia, extending for approximately 300 kilometres with the reef accessible from the shoreline (CALM, 2005). It is located along the coast of Western Australia stretching from the north at Bundegi to Red Bluff in the south (see appendix A for map). For this study, the NMP and the surrounding peninsula will be referred to as the Ningaloo region.

The primary management body for the Ningaloo region is the Department of Environment and Conservation (DEC, formerly know as CALM). DEC also works with the Marine Parks and Reserves Authority (MPRA), The Department of Fisheries (DoF) and The Department
for Planning and Infrastructure (DPI)\(^1\) (CALM, 2005). At the end of 2004 a revised management plan was gazetted for the NMP, which included a new zoning scheme (see appendix A for zones).

The Ningaloo region is valued for it’s ecological, cultural, heritage and scientific significance. The Ningaloo region has some of Australia’s most pristine and scenic natural environments, which support a diversity of habitats and wildlife. Conservation and protection strategies are vital for effective and sustainable management due to the sensitivity of the Ningaloo region. Zoning approaches such as sanctuary zones are used effectively to protect fragile ecosystems from intensive human uses (CALM, 2005). The revised management plan, which was legislated in 2005, increased the sanctuary zones from approximately 10% of the NMP to 34% (CALM, 2005). The preservation of the environment is an important aspect of the Ningaloo region, however this aspect is threatened due to growing visitor numbers (particularly in the form of tourism), which have placed human use pressures on the environment.

Wood and Hughes (2006) observed that tourism in the region has grown significantly, from 110,000 visitors in 1990 to 220,000 visitors in 2006. This increase in popularity can be attributed to a growth in nature-based activities (Wood & Dowling, 2002, cited in CALM, 2005) including alternative forms of tourism such as ecotourism, wildlife tourism and adventure tourism. These activities, combined with traditional activities, such as fishing, have created conflict with conservational goals because of the growing dependency and importance of tourism for the local economy. The growing use of this area by tourists and its sensitive nature has made it a ‘hot spot’ for research.

Understanding repeat tourists’ tolerance thresholds is important because they are more sensitive to changes than first time tourists and are important for the long-term success of a destination (Fyall, Garrod, & Leask, 2003). Emerging environmental changes and restrictions have placed pressure on repeat tourists’ recreational activities, in particular

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\(^1\) Unless otherwise stated, the government authorities responsible for the management of the Ningaloo region will be referred to as ‘the managers’ or ‘management’.
fishing. By exploring the tolerance threshold of repeat tourists' in accordance with restrictions, management can make informed and educated decisions.

1.2 Research Problem

A common issue affecting natural areas is balancing human usage with environmental conservation while maintaining economic viability. Environmental issues are now at the forefront of discussion when managing natural areas. Many natural areas are subject to human use and this results in conflict between a variety of stakeholders. This study will focus on one of the major stakeholders, the repeat tourist. In natural areas, problems may arise when management implement restrictions in order to protect the environment without assessing the responses of repeat tourists, particularly when responses to these restrictions are negative. Restrictions can include limiting fishing areas and bag limits, and imposing fees. With the recent increase in Ningaloo's sanctuary zones to 34% (covering the marine park), repeat tourists (as well as other users) face greater limitations on extractive recreational activities such as fishing and invertebrate collecting as they are prohibited in these zones.

1.3 Statement of Purpose

The purpose of this study is to explore the perceived effect of changes to sanctuary zones on the recreational pursuits of repeat tourists. Specifically, the study seeks to qualitatively investigate the issues that affect repeat tourists’ tolerance thresholds for restrictions on recreational activities within Ningaloo. The study will explore the intangible issues that affect a repeat tourist’s tolerance threshold including place attachment and intrinsic motivations. The study will also seek to understand attitudes towards management techniques and the development of the Ningaloo region in relation to repeat tourists’ tolerance thresholds.
1.4 Research Objectives

The research objectives of this study are outlined below. They allow the issues affecting repeat tourists’ tolerance thresholds to be explored and understood.

The aims of this study are to:

1. Explore values and perceptions concerning current recreational pursuits.

2. Explore perceptions toward changing social and natural environments in relation to recreational pursuits.

3. Identify perceptions, attitudes and behaviours regarding existing management techniques on recreational pursuits.

4. Ascertain responses to various scenarios postulating changes to natural and social environments affecting recreational pursuits.

5. Develop an understanding of the factors that account for thresholds of tolerance for change in terms of intent to re-visit and any variability that exists from one person to another.

1.5 Conceptual Framework

Conceptual framework development is an important aspect of the research process (Veal, 2006). There are several concepts that emerged from the literature to inform the conceptual direction of the study. These key issues enabled supporting theory to be created around the primary conceptual focus (Figure 1.1). As Veal (2006) suggests that a conceptual framework is important to assist in the exploration of the concepts and their relationships
Environmental Concerns

Use marine protected areas (MPAs) to manage environment

Employ multiple-use zoning techniques for effective management.

Recreation occurs in natural settings

Conflict as recreation occurs in MPAs

Co-management and balance between all stakeholders

Recreational interests

Undertake recreational activities in marine protected areas

Understand repeat tourists' threshold for tolerating limitations of their activities

Repeat Tourists

Figure 1.1: The conceptual framework informing the study's focus (highlighted in red and bold).
The conceptual framework (as shown in figure 1.1) defines two types of stakeholders, the managers and the repeat tourists (who are the focus of this study). Both these stakeholder groups have different ideas regarding the management and usage of natural areas. The initial ideas stem from a broad conceptual level, where managers have concern for the environment and repeat tourists for recreational opportunities. These ideas then develop into more defined concepts, such as thresholds for tolerability. Holden (2000) discussed the growing environmental awareness and concerns about changes in the natural environment of managers. This management awareness has come about through a shift towards a more earth-centred world view (Douglas, Douglas, & Derret, 2001). The growing awareness of the environment has also occurred in tandem with the growth in recreational activities, particularly by repeat tourists.

The problems arising from increased usage of marine protected areas (MPAs) have caused conflict between repeat tourists and natural area managers as shown in figure 1.1. The need to protect the environment from negative impacts and meet socio-economic goals has brought about the use of MPAs (Lunn & Dearden, 2006). However, conflict persists as natural areas continue to be impacted upon by increasing pressures from growing visitor numbers. Lunn and Dearden (2006) suggested that in an attempt to disperse pressure, managers have incorporated multiple-use zoning strategies as ways to achieve a range of objectives such as protecting the environment and providing recreational activities.

Multiple-use zoning has been successful in managing, to a degree, environmental impacts. However with increasing recreational usage, zone boundaries require management restrictions and monitoring. These restrictions can cause conflict, as little is known about the responses of repeat tourists and their thresholds for tolerating change (shown in bold in figure 1.1). This is a significant gap in the literature, as the decision of these individuals to re-visit will impact on the economy of the region. By assessing this issue, the decision-making process will be more informed and help create a balance between stakeholders.


1.6 Justification and Significance of the Study

A growth in tourism and recreational usage has increased the pressures on the environmentally sensitive Ningaloo region. There is a fine balance between management restrictions (such as sanctuary zones) aimed at conservation, and repeat tourists' tolerance of these restrictions. Understanding the tolerance thresholds that repeat tourists have for such limitations, and how this affects their intent to re-visit will assist in planning and managing protected areas in a way that is sensitive to repeat tourists' expectations and needs. The triple bottom line measures success in an environmental, social and economic context. Developing a balance between these three dimensions will ensure the 'triple bottom line' of sustainability in the Ningaloo region.

This topic is a relevant, 'cutting edge' issue because of the popularity and awareness of the Ningaloo region and the need to conserve the environment, which may have relevance to other protected areas in Western Australia and elsewhere. This study will contribute to current literature and promote the need to protect the environment as well as working towards repeat tourist satisfaction.

1.7 Definition of Terms

To establish consistency throughout this study, certain terms will be defined and their relationships with one another are shown in Figure 1.2.

- Marine protected areas (MPAs) – Aquatic regions or territories that are protected by legislation to conserve the ecology of the area. In the case of Ningaloo, DEC (Department of Environment and Conservation) manages the area under state legislation, while the Department of Fisheries (DoF) enforces fishing restrictions in the area through its own authority vested by the state.
• Sanctuary zones – Areas within MPAs that have ‘no take’ restrictions placed on them. This means extractive uses such as fishing and invertebrate collection are prohibited. Activities allowed in sanctuary zones include boating, wildlife interaction, research, diving, snorkelling, surface water sports and commercial charter vessels that are not for the purpose of fishing.

• Recreationist – An individual who participates in activities that promotes intrinsic satisfaction whether for relaxation, enjoyment, excitement or adventure. Such activities popular in the Ningaloo region include fishing, camping, swimming and snorkelling.

• Tourists – Individuals who have travelled outside their place of residence and outside their familiar environment. Their motivations for travelling in the context of this study are for leisure, recreation and adventure. Tourists are a sub-set of recreationists.

• Repeat tourists – In the context of this study, tourists who have been to Ningaloo more than once in the past 3 years. They can be intrastate, interstate or international tourists. Repeat tourists are a sub-set of tourists.

The diagram depicted below (Figure 1.2) shows the hierarchal relationship of the defined terms in the context of this study. Repeat tourists are types of tourists who are also recreationists. Sanctuary zones are one type of zone within the zoning scheme used to manage MPAs, which restrict recreational activities.
Recreationist (Includes tourists and residents)

Tourist (Includes one-off tourists and repeat tourists)

Repeat Tourist

Recreation occurs in MPAs

Sanctuary zones restrict recreation

Sanctuary Zones

MPAs (Includes general use zones, sanctuary zones, special purpose zones and recreation zone).

1.8 Structure of Thesis

The thesis is structured according to the standard format of a research report. Chapter one has introduced the research project, and outlined the background to the study, research purpose, research objectives and research problem. The research project was justified, and the conceptual framework was explained. Chapter two reviews the literature, which assists in the formulation of the study's theoretical argument. It includes discussions of environmental change and awareness, marine protected areas, travel and proximity, tolerance thresholds of restrictions, the recreation opportunity spectrum, place attachment and intrinsic motivations of repeat tourists. Chapter three discusses the qualitative methodology used in the study. The explorative research design is discussed, as is the use of semi-structured interviews and hypothetical scenarios when interviewing participants.
Chapter three also outlines the data collection and analysis methods, which incorporate the use of grounded theory and different levels of coding. Ethical considerations are also addressed.

Chapter four presents the results and findings from the data collection and analysis and outlines the themes that emerged. The themes are grouped into four separate sections, they are: current recreational pursuits, social environment, natural environment and management techniques. The final chapter provides a summary of the research project exploring tolerance thresholds of repeat tourists and presents a revised conceptual framework, which focuses on the manager and repeat tourist relationship. Key findings are presented and include the importance of localised place attachment and the need for management authorities to take this localisation into account in terms of education, access and changes to restrictions. It is also evident that some repeat tourists do not view themselves as the typical tourist, but more as ‘seasonal visitors’. This perception needs consideration, as it would affect the consultation process of management authorities. In this final chapter, conclusions are also drawn from the research project and recommendations for further research are presented.
Chapter 2

Literature Review

2.1 Introduction

The purpose of this literature review is to explore concepts and contextualise the study within the wider body of research on tourism and recreation management in protected areas. As this study looks at a variety of issues, the literature review begins by broadly describing environmental change and awareness. This description is followed by a discussion of nature-based tourism and the wilderness experience and the importance of protected areas through zoning approaches and possible problems. A more in-depth analysis is then conducted on studies investigating the relationship between managers of protected areas and recreationists, followed by a discussion of the recreation opportunity spectrum. The importance of education and interpretation is highlighted along with the development of place attachment among repeat tourists. Finally, the chapter discusses studies that have examined the issues associated with tolerance of restrictions.

2.2 Environmental Change and Awareness

Awareness of the environment and environmental changes, such as global warming and human impact, has been increasing over the last few decades. There has been a growth in interest from a variety of groups, such as governments, non-governmental organisations (NGOs), the private sector, academics and the public (Holden, 2000). This change in awareness began in the late 1960s due to the impact that economic growth had on the environment and it continues today, with environmental concerns now a core aspect of public policy, regional planning and public attitudes.
This growing awareness and concern for environmental change could be described as a transformation in the way individuals view the world. Two different worldviews are identified in relation to the environment (Douglas et al., 2001). These are the human-centred (anthropocentric) and the earth-centred (eco-centric) worldview. The human-centred view considers humans as the most important species who are able to take advantage of the earth’s resources (Page & Dowling, 2002). Earth-centred views focus on the environment as an attribute where all elements have their own intrinsic value rather than being instrumental (Douglas et al., 2001). These eco-centric individuals are concerned with conservation and protection as ideals, and are more aware of the environment. Human-centred individuals generally are not concerned, or simply do not know, about the negative impacts they may be creating by using the earth’s resources (Douglas et al., 2001).

There has been a growing awareness of environmental change and thus a growth in attitudinal change (Holden, 2000), which suggests a move towards a more earth-centred worldview. However, the human-centred view is still the most prevalent in today’s society where economic progress, such as building resorts rather than conserving the environment, is often given priority. The shift in attitudes towards the environment has coincided with the development of alternative types of tourism, geared towards the tourists’ increased awareness of the environment (Newsome, Moore, & Dowling, 2001).

2.3 Nature-Based Tourism and the Wilderness Experience

Tourism is one of the fastest growing industries in the world and can be broken into two types: mass tourism and alternative tourism (Douglas et al., 2001). Mass tourism has been defined as, “large numbers of people seeking replication of their own culture in institutionalised setting[s]” (Douglas et al., 2001, p. 288). In mass tourism there is little or no authentic environmental or cultural interaction. Conversely, alternative tourism fosters understanding and emphasises interaction between guests, the host community and the environment. It encourages natural, social and community values through positive and shared experiences (Douglas et al., 2001; Newsome et al., 2001). Alternative tourism can
encompass several types of tourism including wildlife tourism, ecotourism, adventure tourism and nature-based tourism.

As environmental awareness has grown the tourism industry has shifted towards more environmentally and host friendly forms of tourism to counter the negative impacts of mass tourism. The increase in public awareness, media attention and government environmental agendas has caused an increase in demand for nature-based tourism activities (Mehmetoglu, 2007a). Nature-based tourism focuses on natural environment as the primary attraction and encourages understanding and environmental conservation (Newsome et al., 2001). It includes a broad spectrum of tourist opportunities and activities that often overlap with other forms of alternative tourism such as wildlife tourism and ecotourism. The relationship between tourism types is shown in figure 2.1.

![Diagram showing the relationship between selected tourism types within the tourism context](image-url)
There are three activities that define nature-based tourism (Mehmetoglu, 2007b). These are “experiences that are dependant on nature, experiences that are enhanced by nature and experiences for which a natural setting is incidental” (Mehmetoglu, 2007b, p. 652). The attractiveness of nature-based tourism is not only in its environmental focus, but also because it allows greater flexibility, individuality and activity for visitors (Mehmetoglu, 2007a). Teigland (2000, cited in Mehmetoglu, 2007a) also suggested that the younger generation are searching for intrinsic benefits and ‘post-materialistic values’, specifically, a connectedness to the environment.

The tourists’ desire to interact with nature has assisted in the growth of wilderness tourism (Barre, 2005). The wilderness destination offers a contrary reality to the stress-filled, working existence of the majority of western society. The nature or wilderness experience allows a perceived sense of individuality and the freedom of expression (Barre, 2005). It provides an escape from the drudgery of ‘every day life’ and the boundaries of society (Curtin, 2005; Mehmetoglu, 2007a). Curtin (2005) also suggested that tourists want stimulation in physical, intellectual and spiritual forms. Nature-based tourism predominantly relies on intangible products such as experiences. These experiences are important in a tourism context and normally occur through the interaction with nature and wildlife (Curtin, 2005).

Increasing the meaning of the wilderness experience has typically involved some form of wildlife interaction. Curtin (2005) noted that close proximity to wildlife is important to a visitor’s experience and often leads to the best experiences. There is a desire from tourists for closeness and connectedness with wildlife. Tourists’ desire for closeness has evolved from simple observation of animals to interaction and even contact with them (Curtin, 2005). This trend is evident in the Ningaloo region with tourists flying in to swim with the whale sharks. There is a mystic and romantic ideology of being connected to wildlife and nature spiritually and physically. Hall and Boyd (2005) also highlighted related concepts such as naturalness and remoteness which can be used to evaluate environmental qualities and identify wilderness areas with natural value. The relationships between these concepts is evaluated by a two dimensional continuum (Figure 2.2). The continuum shows the
importance of these concepts when identifying wilderness areas and their quality, as an area’s remoteness and naturalness increases, the wilderness quality improves and there is more undeveloped land.

Figure 2.2: The wilderness continuum

The emergence of nature-based tourism can impact on natural areas such as national parks and marine protected areas. Obtrusive restrictions or over-crowding can diminish the wilderness feel and atmosphere and destroy the idealistic wilderness experience (Curtin, 2005).

2.4 Protected Areas

As nature-based destinations become more popular, the chances of negative impacts also increase. Regulations and controls are important to prevent repetitive environmental damage to natural areas (Hall & Boyd, 2005). One control technique is the implementation of protected areas (PAs). Newsome et al. (2001) stated that the initial management strategy for natural areas is to be designated as a PA. PAs can be areas of land (terrestrial) or sea (marine) or a combination of both. Examples of terrestrial PAs are
Yellowstone National Park or Cape Range National Park, whereas marine protected areas (MPAs) include the Great Barrier Reef Marine Park (GBRMP) or the Ningaloo Marine Park, which is the focus of this study.

Many authors acknowledge the role that MPAs have as an ecological, conservation and protection tool (e.g. Gelcich, Edwards-Jones, & Kaiser, 2005; Little et al., 2005; Lunn & Dearden, 2006; Lynch, 2006). Tonge and Moore (2007) agreed, adding that as well as conserving natural areas, MPAs provide recreation and tourism opportunities. Lunn and Dearden (2006) best described the purpose of MPAs as “designed to meet a variety of environmental and socio-economic goals” (Lunn & Dearden, 2006, p. 184). The implementation of MPAs aims for a balance between conservation and economic gain.

Employing multiple-use zoning strategies within MPAs emerged as a successful way to achieve several different management objectives (Lunn & Dearden, 2006; Lynch, 2006). These zones were typically split into general use, habitat protection or sanctuary (no-take) zones. Sanctuary zones have the ability to “conserve local biodiversity, protect species most vulnerable to exploitation, encourage marine tourism opportunities and alleviate future conflicts among stakeholders” (Lunn & Dearden, 2006, p. 184). The multiple-use zoning system is the GBRMP’s primary management strategy. It employs three zoning areas: the general use zone, national park zone and preservation zone, with only the first two available to tourists (Newsome et al., 2001).

Little et al. (2005) highlighted an important aspect that needs to be considered when discussing the MPA concept. Many MPAs have unclear conservational goals due to variables, such as habitat type, compliance and species type. Anticipated compliance of recreationists needs to be considered when planning and evaluating MPAs and can be used as a management tool. Encouraging compliance is important because the success of MPAs depends on the willingness of recreational participants to comply with regulations (Gelcich et al., 2005; Lunn & Dearden, 2006). In order for protected area managers to achieve their goals there needs to be “spatially restrict[ed] extractive use” (Lynch, 2006, p. 1473). This restricted use refers to the closing of areas, such as popular fishing grounds,
that receive higher use and therefore more negative impacts. This restriction can present a problem when balancing recreationists’ needs with environmental needs.

2.5 Relationship between Protected Area Managers and Recreationists

The need for management of protected areas is vital because “unplanned, uncontrolled tourism growth when taken to the extreme can destroy the very resource on which it is built” (Page & Dowling, 2002, p. 197). In many natural or protected areas there is often disagreement between managers and recreationists due to conflicting uses of the areas. For example, Wood and Glasson (2005) discussed several disagreements that occurred between management groups and recreational users in the Ningaloo region. These disagreements included topics such as campers moving away from formal campsites, over-fishing, imposed regulation of activities by managers and collecting fees. All these issues and the consequential impacts were a result of contested environments (Wood & Glasson, 2005).

Managing contested environments is difficult and achieving balance and symbiosis is a vital consideration when dealing with sensitive natural areas. If the relationship between protected area managers and recreationists can be managed and integrated then symbiosis can exist, creating intrinsic benefits such as sustainability and tourist satisfaction (Page & Dowling, 2002). It has been recognised that community involvement in planning and decision-making processes is essential to foster empowerment and cooperation with residents to minimise conflict (Mason, 2003; Newsome et al., 2005; Page & Dowling, 2002).

Page and Dowling (2002) described how such involvement can avoid or reduce conflicts where natural resources are concerned. Although there has been a lot of research on the importance of local resident involvement, few studies have addressed repeat tourist involvement. If these individuals have been visiting a destination for several years they may feel it is within their rights to voice their opinion during the planning process.
Managers need to address all recreationists including residents and visitors to establish positive relationships.

Co-management and achieving an optimum solution for all stakeholders is important when managing contested environments (Gelcich et al., 2005; Lunn & Dearden, 2006; Lynch, 2006). In this way, tourism development does not cause environmental or socio-cultural deterioration and maintains a level of satisfaction (Saveriades, 2000). Tonge and Moore (2007) discussed the importance of understanding visitor satisfaction in establishing the appropriate facilities and services in a natural destination. Visitor motivations and the experiences visitors are seeking will impact on the type of recreational opportunities managers need to provide (Tonge & Moore, 2007).

2.6 Recreation Opportunity Spectrum

The recreation opportunity spectrum (ROS) is a framework which focuses on the relationship of outdoor recreation resources and leisure demand (Veal & Lynch, 1996) and has special relevance to research (such as the present study) that seeks to understand the relationship between recreationists and their surroundings. The ROS was created in America by the United States Department of Agriculture (USDA) in 1979 to assist outdoor recreation managers and policy makers (Clark & Stankey, 1979). The ROS examines a wide range of recreational opportunities and recognises the recreational setting, activity and experience (Wollmuth, Schmaker, & Merriam, 1985). The primary focus of the ROS relies heavily on the recreational setting in which activities occur and how to accommodate adequate recreational opportunities. By providing recreational opportunities in different settings, recreationists can decide what activity and experience they desire (Clark & Stankey, 1979; Oosterzee, 1984).

A continuum or spectrum of settings are used to classify “areas in which outdoor recreation might be sought ... from totally undeveloped such as pristine wilderness (‘primitive’) to the highly developed, such as a fully serviced camp site and recreation area (‘modern’)” (Veal & Lynch, 1996, p. 309). The opportunity factors that give the
spectrum a range of opportunity settings are access, other non-recreational resources, onsite management, social interaction, acceptability of visitor impacts and acceptable level of regimentation (Clark & Stankey, 1979; Oosterzee, 1984). The ROS is presented in table 2.1.

Table 2.1: Recreation opportunity spectrum

<table>
<thead>
<tr>
<th>Site Attributes</th>
<th>Modern</th>
<th>Semi-modern</th>
<th>Semi-primitive</th>
<th>Primitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Access (roads etc.)</td>
<td>Easy</td>
<td>Moderately</td>
<td>Difficult</td>
<td>Very difficult</td>
</tr>
<tr>
<td>2. Non-recreation resource use (e.g. forestry)</td>
<td>Compatible on large scale</td>
<td>Depends on circumstances</td>
<td>Depends on circumstances</td>
<td>Not compatible</td>
</tr>
<tr>
<td>3. Site modification by management</td>
<td>Very extensive</td>
<td>Moderately extensive</td>
<td>Minimal</td>
<td>None</td>
</tr>
<tr>
<td>4. Social interaction (contact with other users)</td>
<td>Frequent</td>
<td>Moderately</td>
<td>Infrequent</td>
<td>None</td>
</tr>
<tr>
<td>5. Visitor impact</td>
<td>High</td>
<td>Moderate</td>
<td>Minimal</td>
<td>None</td>
</tr>
<tr>
<td>6. Regimentation (overt visitor control)</td>
<td>Strict</td>
<td>Moderate</td>
<td>Minimal</td>
<td>None</td>
</tr>
</tbody>
</table>

(Veal & Lynch, 1996)

The ROS can be used to categorise land use and associated activities. This use of the ROS is important because not all activities can co-exist at the same site without inevitable conflict between users (Newsome et al., 2001). By providing a diverse range of
recreational opportunities, individuals can enjoy quality experiences without impacting on other recreationists and the environment (Clark & Stankey, 1979). Newsome et al. (2001) suggested that high impact activities can be allocated to resilient areas while low impact activities can be allocated to sensitive and less resilient areas. By providing diversity, the ROS can help reduce the negative environmental affects of increased popularity of recreation in natural areas. Newsome et al. (2001) suggested that the ROS can be used to classify national parks within a region. The ROS can cover “places accessible only on foot with no facilities through to freeways and facilities with many comforts, such as resorts and lodges” (Newsome et al., 2001, p. 159). This diversity allows the ROS to be applicable to natural area tourism as well as wilderness recreation.

The principles of the ROS are currently being applied to the NMP in the form of sanctuary zones and strategic planning of facilities and infrastructure (or lack thereof). By simply not providing certain recreational facilities and hence, opportunities, such as access roads into wilderness areas for mass tourists would allow opportunities for more sustainable pursuits such as hiking and bird watching. Although providing opportunities is important, visitors must be aware that they exist and the location of allocated sites for their specific activity. This awareness can be accomplished by education and interpretation.

2.7 Education and Interpretation

Education and interpretation can be important tools to create understanding and awareness. Mason (2003) stated that education is a way to provide information to visitors. Information can be transferred in a variety of ways, through formal lectures to informal signs and guidebooks. Within a tourism context, the education process is commonly referred to as ‘interpretation’ (Mason, 2003). According to Hwang, Lee and Chen (2005), interpretation is an important communicative tool between management and visitors. It allows the appropriate communication of “regulations, policies, plans and resource management information” (Hwang et al., 2005, p. 143).
Interpretation can use a range of media such as photos, text and objects, to provide insights and promote meaning and understanding (Mason, 2003). It can also enhance enjoyment and promote conservation within a destination. Through the use of interpretation, visitor behaviour can be positively altered to minimise the negative impacts on a destination (Fyall et al., 2003; Hwang et al., 2005; Mason, 2003). However, Orams (1995, cited in Mason, 2003) suggested that it is not known for certain that visitor behaviour will change and it is important to challenge a visitor’s belief system by placing questions in their mind and prompting an emotional response.

There are several other advantages of interpretation. If visitors understand the reasons behind requests for certain behaviour they are more likely to react positively. Interpretation can create awareness of environmental issues and prompt better behaviour such as staying on allocated tracks and keeping a certain distance from wild animals. Conservational values can be promoted through interpretation and can provide long-term benefits for the destination. There are also benefits for the local economy, as employment and volunteer opportunities arise from the provision of interpretative facilities and services, such as tour leaders and visitor centres (Fyall et al., 2003; Hwang et al., 2005).

The difficulty for education lies in visitor motivations for travelling to a destination. Many visitors travel for recreational purposes rather than educative ones (Fyall et al., 2003). Thus, some visitors may not be interested in interpretative information. Hwang et al. (2005, p. 144) discussed how interpretation and education can instil “understanding and appreciation to develop a strong sense of place.” Interpretation can contribute to intrinsic factors by developing a deeper understanding of the destination and promoting place attachment.

2.8 Place Attachment and Intrinsic Motivations

The literature discussed so far has explored conceptual ideas that are tangible and easy to measure. Kyle, Bricker, Graefe and Wickham (2004) examined an alternative concept that focused on the intangible relationship between recreationists and the place in which they...
recreate. Their theoretical framework was constructed on the basis that recreationists become attached to particular settings. This bridges a gap in the empirical literature as MPAs are natural settings and repeat tourists’ relationships with those settings can be based on emotions, values, satisfaction, goals and behaviour. Kyle et al., (2004) called this emotional relationship ‘place attachment’, which examines the meaning of places to people and the emotional bond that a person may have for a place. Hammet, Backlund and Bixler (2006) agree but called the concept ‘place bonding’, and suggested that bonding to recreational places is possible and common, because individuals are able to select their own special or unique place.

The concept of time can have an effect on place attachment. Place attachment can develop over repeated exposure creating a sense of place or even possessiveness in which the recreational place is seen as ‘their own’ (Hammet et al., 2006). Meanings form over time and attachment can vary in intensity and quality (Bricker & Kerstetter, 2002). There is a complex relationship between visitor involvement and place attachment, which can vary between settings and activities and over time (Hwang et al., 2005; Kyle et al., 2004).

Recreationists can become attached to places with which they are involved (Kyle et al., 2004) and individuals can develop a sense of belonging and identify with a particular setting (Hammet et al., 2006). This sense can be related back to the concept of co-management, where, if the repeat tourists’ value the natural setting they use, they may be less likely to infringe on restrictions and be more likely to participate in conservation efforts. Place attachment has the ability to create an emotional response towards the environment or place (Hwang et al., 2005). This response can encourage visitors to care about conservational management techniques. Gelcich et al. (2005) also explored cognitive attachment through attitudes and how they affect behaviour. This attachment allows behaviour, and likely responses to new policies or management activities, to be predicted before implementation.

Place attachment was built on the concepts of place identity and place dependence (Bricker & Kerstetter, 2002; Hwang et al., 2005; Kyle et al., 2004). Hammet et al. (2006)
expanded this view and used the concepts of place familiarity, belongingness and rootedness to create a five-dimensional conceptual framework to explore place attachment/bonding.

Place familiarity focuses on positive memories and images resulting from interactions with the place. These images are often affectionate experiences or major accomplishments. The length of stay can also impact on place familiarity affecting not only spatial knowledge, but also emotional security and bonding (Hammet et al., 2006). Place belongingness refers to a deep connection to the place where an individual feels they belong or has an affinity with the environment (Hammet et al., 2006). Belongingness can be a spiritual experience and involves an intimate relationship with place. Place rootedness is the strongest and most focused of the concepts and involves being completely secure and comfortable in a place. This concept is an intense level of bonding, which many individuals do not achieve with recreational places (Hammet et al., 2006). However, place rootedness is possible if a recreational place is a part of an individual’s tradition or ancestry and the meaning of the place originated in the past (Hammet et al., 2006).

Place dependence describes the association that individuals have with a place in a functionality context. Individuals bond with a place that meets their desired needs to perform a focal activity such as fishing. Place dependence is the ability of a resource to provide appropriate amenities and attributes in order to service the desired recreational activity (Hammet et al., 2006; Williams, 1992, cited in Hwang et al., 2005; Kyle et al., 2004). Place identity on the other hand, reflects individual attitudes, beliefs, feelings, values, preferences and behavioural tendencies in relation to a particular place (Hammet et al., 2006; Kyle et al., 2004). Recreational places can become an extension of self because they help define our identity or initially who we are. It is suggested, however, that place identity and belongingness are too alike and there may be a need for an alternative measure. Although Hammet et al.’s (2006) conceptual framework has not yet been fully tested over a variety of settings and activities, it does suggest that place attachment or bonding is a multi-dimensional construct and is intrinsically dynamic.
2.9 Tolerance Thresholds of Restrictions

Even though a repeat tourist is attached to a place, intervention by management might affect their decision to return due to their tolerance threshold level to the proposed change. Moore and Polley (2007) and Manning (2001) discussed the importance of exploring indicators or standards to highlight minimal acceptance conditions. These indicators can be useful to identify when to implement restrictions as acceptable conditions drop below the ‘norm’. Although Northcote and Macbeth (2007) highlighted the usefulness of sanctuary zones to promote sustainability, the potential responses of users must be investigated to address social impacts. Manning (2001) discussed the need to have informed judgments to enable adequate management decision-making when implementing restrictions. This makes measuring tolerance difficult as management rely on value judgments (Saveriades, 2000).

Northcote and Macbeth (2007) discussed two models that aimed to account for the way recreational users made decisions. The random utility model used intrinsic characteristics of the destination as the basis for choosing sites. This model valued a destination objectively suggesting that if attributes changed, so did visitors’ behaviour (Northcote & Macbeth, 2007). Alternatively the discrete choice model was based on the subjective valuation of a destination, and that choices were made based on available alternatives. Assessing the decision-making of individuals is difficult because the process is not always smooth and continuous. Northcote and MacBeth (2007) cite Cantillo and Ortúzar’s (2006) study of tolerance thresholds as a useful way to conceptualise responses to changes at the destination level, and suggest that sanctuary zone changes in the Ningaloo region might be understood accordingly.

Cantillo and Ortúzar (2006) suggested that thresholds of tolerance would affect decision-making and responses to change. Although a change may have occurred at the destination, such as the introduction of a new sanctuary zone, an individual’s behaviour may not change. This trend occurs because the change is within the threshold of tolerability. However, if a more dramatic change occurred or dissatisfaction increased from the
original change, behaviour may alter instantly (Cantillo & Ortúzar, 2006). Tolerance thresholds are dynamic and would “depend on the experience and restrictions of the individual” (Cantillo & Ortúzar, 2006, p. 668) as well as individual adaptability. Destination choice was not just determined by the intrinsic characteristics of a destination or what alternatives are on offer, but in the case of repeat tourists, by the aspect of place attachment.

2.10 Summary

As shown by this review of the literature, there are many influencing factors providing direction for this research. Individual environmental awareness has increased and brought about a growth in demand for nature-based tourism wilderness experiences. Protected areas have been created to manage increasing visitor numbers and balance conservational goals with economic ones. The growth of demand for recreational space and opportunities has caused conflict with protected area managers and recreationists. The recreation opportunity spectrum focuses on controlling this demand while providing opportunities to satisfy recreationists. Recreationists can be made aware of recreational opportunities through education and interpretation. Education and interpretation are important to foster understanding about conservation and protection of the environment. These tools can also create place attachment as tourists interact and learn about the environment with which their recreational activity takes place. A research gap exists in the knowledge about the thresholds of tolerance for change of repeat tourists and how these thresholds will affect the decision-making of managers. The present study endeavours to address this gap by exploring the salient factors that account for repeat tourists’ limits of tolerance to change, including factors such as alternative choices and place attachment.
Chapter 3

Methodology

3.1 Introduction

This chapter outlines the methodology used for this study. The qualitative research design is discussed along with the instruments and techniques used during the research process. Semi-structured interviews were used to provide flexibility and direction during the data collection stage. The close interaction with participants also allowed rich, descriptive data to be collected and subsequently analysed. Data analysis used a computer software program (Nvivo) to assist in the coding and retrieval of data. Ethical guidelines are important, and as will be explained, this research followed the guidelines provided by Edith Cowan University.

3.2 Research Design

The qualitative research design employed in this study focused on exploratory and descriptive research. These types of designs are used when the purpose is to discover and explore the “behaviour in areas or activities which have not previously been studied” (Veal, 2006, p. 3). The leisure and tourism industries are relatively new areas and they require initial exploratory study (Veal, 2006). As the threshold of tolerance concept is an under-explored area of study, a qualitative approach was appropriate in the context of this research. It was necessary for this study to collect primary data, due to the lack of secondary information available to adequately explore the topic. The primary data consisted of first-hand personal perspectives collected from participants (Kumar, 1996). In the context of this study, primary data was collected through individual interviews of repeat tourists.
Data collected were in the form of oral responses, which were transcribed into text and focused on rich information from thirteen participants. Interviews were considered the most appropriate method as they allowed intangible and intrinsic responses to be gathered. This research project was time-bound because it consisted of only one contact with participants, undertaken at one time period. This approach was the most appropriate type of study to get an overview of repeat tourists' current perceptions. Although this approach is used in this study, it is recognised that individual perspectives undergo change over time. The interviews were carried out in one field study, from the 27th of June to the 4th of July 2007, over a one-week period.

### 3.3 The Study Participants

The study population refers to all individuals who could be included in the research (McNeill & Chapman, 2005). Thus, the study population consisted of all repeat tourists who were visiting the Ningaloo region at the time of the research. From this population, specific characteristics of the repeat tourist were targeted. The sample was comprised of individuals who had:

- Travelled from outside their place of residency to visit the Ningaloo region;
- Visited the Ningaloo region more than once in the past 3 years and;
- Participated in some form of recreational activity, particularly fishing within the Ningaloo region.

A cross-sectional sample of 13 repeat tourists were selected to participate in the study. Participants were selected from the main tourist nodes in consultation with the tourism office upon arrival. Certain areas, such as popular caravan parks, were targeted to recruit participants. The interviewees were selected through purposive (i.e. non-probability) sampling.

To provide rich information, the research required individuals of different ages and a mix of males and females. It was necessary to interview individuals from different places of
origin to present differing opinions and backgrounds. To ensure the study looked at different groups of people, participants were selected from three main accommodation types: camping, caravans and motels. This selection was used to gain a range of perspectives from different groups within the study population.

3.4 Instruments/Techniques

As the study focused on qualitative data, the interview was an appropriate method for gathering information. There are three main types of interview: unstructured, structured or semi-structured. Semi-structured interviews were chosen because flexibility and discretion could be maintained while working in a standardised framework (McNeill & Chapman, 2005).

The interviews for this study employed an interview framework developed prior to the interviews (see appendix B for framework). These questions were constructed from the research purpose and objectives. They explored the broad areas of: current recreational pursuits, existing management techniques, changes in natural and social environments, responses to various scenarios and tolerance thresholds. A range of scenarios was discussed with the interviewees to determine their perceived limits for tolerating change. Scenarios were based on the current sanctuary zone model and hypothetical changes, a response sheet was also used to assist participants determine their tolerance threshold (see appendix D and E for response chart and scenarios). Although, initially a 60% hypothetical scenario was going to be presented to participants, it was found it was unnecessary due to varying levels of initial tolerance and awareness of sanctuary zones of participants. Interviewees were encouraged to add any extra information of interest and were kept on track with directional questions. Interviews went for approximately thirty minutes to one hour depending on the willingness and depth of information provided by the interviewee.
3.5 Data Collection

The data collection consisted of primary data focusing on understanding people's words, actions and ideas. In-depth, semi-structured interviews were used and conducted as a casual conversation rather than a formal interview (Marshall & Rossman, 1999). Individuals were approached by the researcher and asked whether they would care to participate in an interview. The majority of participants were approached in two caravan parks in Exmouth close to the Ningaloo Marine Park. One caravan park was situated in Exmouth while the other was in-between Exmouth and the Cape Range National Park on the peninsula (See appendix C for caravan sites). Although the majority of participants came from these caravan parks, two individuals were interviewed outside their motel in Exmouth after meeting on a whale shark tour and a further two campers were interviewed back in Perth after correspondence in Exmouth.

The purpose of the research was explained along with who the researcher was and why it was important. If the individual was willing to participate, they then allocated a time and place where they would like to be interviewed. Individuals were questioned later in the afternoon in a quiet public area. This strategy made the collection of data easier as it did not disturb the repeat tourists during the busy mornings. A public area was suggested so the interviewee did not feel intimidated and so that a family member of the interviewer was close by for safety. All participants were happy to be interviewed.

Each interviewee was given a research information letter and consent form to read and sign before commencing the interview. An audio device was used to record interviewees' responses and extra notes were written down during the interview. Audio-recording was important, as it is difficult to take extensive notes and concentrate on the interviewee during an in-depth discussion (Henderson, 2006). All participants agreed to be audio-recorded and most relaxed after a few minutes once the discussion began. Participants were all aware that the recording would be kept confidential and that they could stop the interview at any time. Scenario models were shown to interviewees and their responses and body language were recorded on paper. After the interview was completed the
researcher took time to reflect on the interview and recorded any additional notes. The interview audio files were backed up and saved on a removable disc to prevent loss of information.

3.6 Data Analysis

Data analysis involves applying structure and interpretation to a mixture of collected data (Marshall & Rossman, 1999). The process of qualitative data analysis can take many paths in the search for theory, relationships and conceptual ideas. Upon collecting the data, analysis began by reading through and interpreting field notes and transcribing interviews. Henderson (2006) suggested that a full verbatim transcription should be used including pauses, laughter and grammar. This approach was used, as the transcriptions were typed directly from the audio-recordings of the interviews and included mood indicators or cues such as laughter and words that participants may have emphasised. Notes were also taken during the interviews, which recorded body language and behaviour and were added into the transcriptions (Henderson, 2006). Re-reading the transcriptions while listening to the audio ensured that background noise did not distort the intended meaning of the interviewee’s words. This method was used to verify the resemblance of the transcription to the audio recording and ensured no important comments were overlooked. The transcription process is described as a transitional phase of preparing data for analysis (Patton, 2002). During the transcription, preliminary notes where taken on common themes to assist understanding and theorising during the coding stages.

After the interviews were transcribed, they were imported into qualitative data management software called Nvivo. Nvivo was used to store data for coding, retrieval and comparison. Patton (2002) emphasised the importance of using computer software only to assist in the organisation of the data, as it is the human being who must do the analysis. Nvivo was used to assist the grouping of common descriptive and conceptual themes together as well as for the quick and easy retrieval of data. Due to the voluminous nature
of qualitative data, coding was used as a form of data reduction and focusing (Henderson, 2006).

Interviews were coded into 'nodes' or different themes. The initial coding used was open coding which identified descriptive data. Open coding identifies concepts and groups them by similar wording, ideas or headings (Henderson, 2006). This approach was initially used with the interview questions as guides. Henderson (2006) suggested that the next type of coding was axial coding, which tries to find relationships between categories and subcategories. This study used axial coding to identify intrinsic ideas and relate them to descriptive data. Axial coding asked why, how come, with what and when (Henderson, 2006).

The last process in coding is selective coding (Henderson, 2006). This final method of coding was used to examine how the identified themes related to theory and current literature. During the coding, any theory or interesting findings were recorded by memos or in a word document. This study used grounded theory as a way to develop ideas into theory and allowed concepts to be built up from the foundation of data. Grounded theory is a technique used to develop or generate formal theory from coding (Henderson, 2006; Patton, 2002). It involves “theorising...using descriptions to show mental images of a situation or phenomenon followed by conceptual ordering that includes organising data according to sets of properties” (Henderson, 2006, p. 167). The sets of properties are combined through relationships and form theory. Patton (2002) highlighted the thoroughness of the grounded theory technique throughout the research design, data collection and analysis.

3.7 Ethical Considerations

The consideration of ethics in research is important to promote moral and professional research practice. The researcher understood the responsibility they had to ensure the correct treatment of all stakeholders involved in the study. This research followed ethical guidelines established by Edith Cowan University (ECU) and was supported by the
principles espoused by Jennings (2001), Veal (2006) and Kumar (1996). As this study focused on individuals, the main ethical consideration was to protect the rights of the research participants. No participant was subject to physical, psychological or legal harm either directly or indirectly because of this research. Participants had the right to voluntary participation and informed consent. Details of the research requirements were given to the participants to ensure their knowledge was adequate to make a voluntary decision without bias or pressure (Kumar, 1996). They had the right to withdraw from the research process at any time. Copies of the information letter were provided and pseudonyms were created for all participants. The study did not commence until approval was gained from the ECU Human Ethics Committee. Honesty and integrity was maintained throughout the research process and the study reported the true facts and findings to the best of the researcher’s ability.

3.8 Summary

Due to its exploratory nature, a qualitative methodology was deemed appropriate in the context of this research. Semi-structured interviews were used to focus on a small amount of rich information from thirteen participants. The study participants were selected through purposive sampling using selective criteria. All participants consented to the interview and agreed to be audio recorded. Once data were collected, analysis began using Nvivo to assist in the coding process. When the data analysis process was complete the results and findings were grouped into four separate sections, which highlighted the common themes and issues discovered during the research process. The next chapter will discuss the key results and findings.
Chapter 4

Results and Findings

4.1 Introduction

This chapter presents the results and findings of the qualitative research, which examined the issues that influence the tolerance thresholds of repeat tourists. The key results and findings are presented in four sections. These sections are: current recreational pursuits, social environment, natural environment and management techniques. The sections each have two or more defined sub-sections, which explain the findings and present relevant quotations from the data collection. The first section focuses upon the current recreational pursuits of repeat tourists and begins by outlining demographic information about the study participants, which were established during the interview. It then discusses reasons for visitation, the importance of travel, proximity and access, and localisation.

The focus of the second section is upon the social environment. It examines the impact of tourism on the repeat tourists' threshold of tolerability to change and their perceptions of themselves as tourists. Issues surrounding the natural environment are explored in the third section. It describes the growth in environmental awareness and the importance of the wilderness experience. The final section discusses the management techniques of the Ningaloo region, especially the use of restrictions and interpretation as well as the conflict between stakeholders and tolerance to sanctuary zones.
4.2 Current Recreational Pursuits

4.2.1 Participants

The participants' demographics of age, gender, accommodation, primary recreational activity, residency, time of visit, average length of stay and average number of visits are shown in table 4.1 below. There were seven participants that were 60 years old or more, two participants that were between the age of 46 and 59 and four participants between the ages of 18 and 29. In terms of gender, eight males and five females participated in the study. The accommodation types were spread between caravans (8), camping (2) and motels (2) with one individual having stayed at both camping and caravan park facilities. The primary recreational activity was fishing, with five onshore fishers, two boat fishers and one individual participating in both onshore and boat fishing. Out of the remaining participants, two participated in snorkelling as a primary recreational activity, one participated in sight seeing, one enjoyed passive activities (such as reading and knitting) while her husband fished from the shore, and another enjoyed both snorkelling and boat fishing.

Twelve of the participants permanently reside far south of Exmouth with the furthest living in Bunbury and the closest in Geraldton. The other participant was an international repeat tourist from Holland. Participants generally visited the Ningaloo region during the middle of the year between April and November. Some participants' average length of stay was between three to four months, while other visits ranged from three days over the weekend to two weeks. Among the participants interviewed, there seemed to be a tendency for those who had a higher number of repeat visits to stay longer during their visits to Ningaloo. The remaining repeat tourists tended to be less regular (i.e. not every year) and had visited two or three times. Table 4.1 presents the participants' demographics below.
<table>
<thead>
<tr>
<th>Participants (Pseudonyms used)</th>
<th>Age</th>
<th>Gender</th>
<th>Accommodation</th>
<th>Primary Recreational Activity</th>
<th>Residence</th>
<th>Time of Visit</th>
<th>Average Length of Stay</th>
<th>Average Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>George</td>
<td>60+</td>
<td>M</td>
<td>Caravan</td>
<td>Onshore fishing</td>
<td>Perth, WA</td>
<td>June - August 3 mths</td>
<td>14-15</td>
<td></td>
</tr>
<tr>
<td>Betty</td>
<td>60+</td>
<td>F</td>
<td>Caravan</td>
<td>Onshore fishing</td>
<td>Perth, WA</td>
<td>June - August 3 mths</td>
<td>14-15</td>
<td></td>
</tr>
<tr>
<td>Ray</td>
<td>60+</td>
<td>M</td>
<td>Caravan</td>
<td>Onshore fishing</td>
<td>Bunbury, WA</td>
<td>June - August 3 mths</td>
<td>20+</td>
<td></td>
</tr>
<tr>
<td>Jean</td>
<td>60+</td>
<td>F</td>
<td>Caravan</td>
<td>Onshore fishing</td>
<td>Bunbury, WA</td>
<td>June - August 3 mths</td>
<td>20+</td>
<td></td>
</tr>
<tr>
<td>Bruce</td>
<td>60+</td>
<td>M</td>
<td>Caravan</td>
<td>Fishing (Onshore &amp; Boat)</td>
<td>Bunbury, WA</td>
<td>May - September 3-4 mths</td>
<td>10-12</td>
<td></td>
</tr>
<tr>
<td>Kristopher</td>
<td>18-29</td>
<td>M</td>
<td>Motel</td>
<td>Snorkelling</td>
<td>Holland, Netherlands</td>
<td>November &amp; July 3 days (weekend)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Rebecca</td>
<td>18-29</td>
<td>F</td>
<td>Motel</td>
<td>Snorkelling</td>
<td>Geraldton, WA</td>
<td>November &amp; July 3 days (weekend)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lindsey</td>
<td>60+</td>
<td>M</td>
<td>Caravan</td>
<td>Onshore fishing</td>
<td>Perth, WA</td>
<td>April - July 3-4 mths</td>
<td>11-12</td>
<td></td>
</tr>
<tr>
<td>Eleanor</td>
<td>60+</td>
<td>F</td>
<td>Caravan</td>
<td>Passive activities (knitting, observing)</td>
<td>Perth, WA</td>
<td>April - July 3-4 mths</td>
<td>11-12</td>
<td></td>
</tr>
<tr>
<td>Debbie</td>
<td>46-59</td>
<td>F</td>
<td>Caravan</td>
<td>Boat fishing</td>
<td>Rockingham</td>
<td>June-September 3-4 mths</td>
<td>5-6</td>
<td></td>
</tr>
<tr>
<td>Adam</td>
<td>18-29</td>
<td>M</td>
<td>Camping</td>
<td>Boat fishing</td>
<td>Perth, WA</td>
<td>School Holidays 12-15 days</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Thomas</td>
<td>18-29</td>
<td>M</td>
<td>Camping</td>
<td>Sight seeing</td>
<td>Perth, WA</td>
<td>School Holidays 1-2 weeks</td>
<td>3</td>
<td></td>
</tr>
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<td>Fred</td>
<td>46-59</td>
<td>M</td>
<td>Camping &amp; Motel</td>
<td>Snorkelling &amp; Boat fishing</td>
<td>Perth, WA</td>
<td>June/July 1-2 weeks</td>
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4.2.2 Reasons for Visitation

One of the major influencing factors for repeat tourists visiting the Ningaloo region is the weather. This factor is particularly strong among the older age group who travel north to escape the cold weather of the southwest of Western Australia. For example, when asked about the reason for visiting, Bruce replied, “because of the weather, the beautiful weather compared to the south.” The importance of weather is evident when analysing the demographics of the participants. All the intrastate participants are currently residing in places south of Geraldton, showing that there is a travel pattern of participants moving from colder climates to warmer climates.

Repeat tourists enjoy the weather through participation in their primary recreational activity. These activities are viewed as a ‘bonus’ and are a method to remain occupied during their stay. For example Bruce explains: “the weather, to get away from the cold and the fish are a bonus.” George discusses the importance of the weather as a reason to visit the region.

The main reason we come up is to get out of the cold weather in Perth and we enjoy fishing so that helps us ‘kill’ two birds with one stone. Fishing is the secondary thing, we are keen on it, but if we don’t go fishing we sit and read and don’t cry.

Although cited as a secondary reason to visit, fishing as an activity is still intrinsic to the participants’ visitation to Ningaloo. When asked how important fishing was to his visit to Ningaloo, Ray answered: “I don’t know whether I could be here three months without fishing.” For participants who regularly participated in fishing, other activities are ancillary to their visit and are not regularly repeated.

The older age participants had a particularly strong attachment to fishing. They perceive other physical activities such as swimming and snorkelling more appropriate for the younger generation. For example, when asked about whether he participated in
snorkelling or scuba diving Bruce replied: “No no, that’s the younger generation.” Thus, simply restricting one activity and expecting individuals to participate in another would breach the limit of many visitors’ threshold of tolerability.

Another strong reason for visiting the region is the intrinsic benefits that repeat tourists gain through various activities. Intrinsic benefits can include a sense of relaxation, escapism and peace and calm and can be achieved through any recreational activity, whether it is fishing, snorkelling, sight seeing or simply sitting on the beach. As Eleanor stated: “I enjoy sitting on the beach and just watching, it’s good, really good.” The sense of peace and calm associated with natural areas allows a repeat tourist to escape the drudgery of modern society and creates a feeling of connection to the environment. Adam remarks: “[It’s] just good to get away from society for a while [to have] the peace and calm.” Another intrinsic benefit and reason for visiting is to be able to relax and escape the stressful environment associated with work. Adam explains:

As busy as people are now, it is good to get away for two weeks with another family or another group and yeah there’s no stress, you can just sit back and enjoy yourself and yeah, because a lot of people sort of lead stressful lives these days so it’s good to have a bit of peace in your life for a bit.

This sense of escapism is increased by the lack of commercialisation compared to other regions and allows the enjoyment of simple wonders of the natural world such as sitting on the beach and watching the wildlife. Eleanor displays this sense of escapism when she notes that: “it’s so beautiful when you go out there [and] just to look in the water.” When discussing areas that participants would like to visit, Debbie explained the enjoyment of going to Yardie Creek: “... [to go] for a picnic, um to spend a day down there and get on the canoes or boats and go up the creek, because its so relaxing and you can see the wallabies and birds and everything.” It is the wilderness experience that frames repeat tourists’ participation in recreational activities such as fishing and snorkelling. These activities are imbued by the wilderness experience which combines the benefits of
weather, the natural environment and the intrinsic benefits that are associated with the experience in the one activity. Given the importance that the natural environment plays in repeat tourist satisfaction, the issues of travel, proximity and access are critical for those who visit the Ningaloo region and it is these factors that are explained next.

4.2.3 Travel, Proximity and Access

The concepts of travel, proximity and access were highlighted as important elements for repeat tourists’ recreation and tolerance to change. Repeat tourists do not want to travel very far to reach recreational areas, whether they are in a boat, a car or walking. The cost of fuel has increased travelling costs and the time taken to travel to regions and back again are influencing factors in the tolerance of travel and proximity. When asked about management strategies Betty notes that petrol costs could become an issue if fishing areas were to be moved: “Mm, and with the cost of petrol you don’t want to be going very far.” The Ningaloo region is a large area and the participants did not want to waste time getting to a destination. They want more time to enjoy the recreational activities available, as Adam discusses:

You wouldn’t want to travel too far away from your camping destination.
Um, I mean you’re taking up limited fuel and you don’t really want to travel into Coral Bay or into Exmouth ‘cause by the time you get back you’ve generally lost half a day to a day.

Proximity is an important consideration for a repeat tourist’s tolerance threshold, especially the distance between accommodation and recreational areas. Campers, in particular, want the camping areas close to the recreational fishing and boating areas, as Adam explains:

Indeed, um, I mean the good thing about Ningaloo was how close it was to the fishing area to start with, but now I mean it’s getting further and further away.
When discussing tolerance towards restrictions Adam suggests that: "if you don’t manage it and you sort of haphazardly place fishing areas and camping areas further away from each other, yeah sort of, people will stop coming." As accommodation areas near the recreational areas are restricted or closed, repeat tourists are more likely to crowd into one area rather than move further out, as Adam demonstrates: "Certainly the, um, camping areas around the open fishing areas are a lot more packed than around the restriction areas."

Access is another important factor in repeat tourists’ recreational pursuits through either access to the beach to launch a boat, safe walking tracks from car parks or accessible fishing platforms. Tolerance for changes can be impacted upon when access to the tracks is made more difficult. Such changes can include cutting trails off further from the fishing beach, which require repeat tourists to walk the remaining distance, not providing sufficient boat ramps or creating rough roads, as George highlights:

They’ve closed a lot of it off and if you want to get to those [beaches] you need to get out and walk and you’ve got some fairly steep sand dunes to go over or plod along the beach.

Age also appears to have an impact on access, as several of the participants were older travellers. Issues such as walking further distances, walking through harder terrain as well as carrying fishing gear and physical restrictions such as artificial joints can impact accessibility, as demonstrated by Debbie:

So out of four of us there are only three good knees. Out of the whole lot the rest of them are artificial, so we’ve got to work out where we can go, where we can get down flat to the beach.

Aspects such as sloping gradients and flat areas to sit become important when providing access to recreational areas. If access is too difficult, repeat tourists may not visit that
particular area. Difficult access can create positive environmental impacts because fewer people are using that area, but it could negatively create crowding in other areas that are more accessible. In addition, making access more difficult could lead to further degradation. Repeat tourists may still attempt to access favourite recreational areas by taking alternative routes, this behaviour could make new tracks and damage fragile sand dunes and vegetation by trampling and erosion. George notes how he and his partner still attempt to access a beach:

So to get to the same beach now we’ve got to go over land, which is a half hour walk over, up and down sand dunes and bush and scrub and what not. We still try once or twice a year.

The time and money that repeat tourists have will affect how far they are willing to travel to participate in certain activities. Recreational activities can be expensive for repeat tourists; the whale sharks tours by themselves are around $330 per person. This high cost may impact on other tours such as scuba diving and fishing charters as repeat tourists may only choose to do one tour. As the region is quite large the time taken and the cost of fuel to get to recreational areas would affect the amount of places repeat tourists can go. For example, Rebecca remarked: “Yeah camping in the National Park would be good but it’s hard to do on such a short stay.” When asked if there was any activity that he was unable to do, Kristopher discussed how scuba diving would have been enjoyable. However, he did not go because he was short on time and money, and the activity was not on top of his list. Kristopher had decided to go on a whale shark tour instead:

Well if everything was possible yeah, we’d like to scuba dive but it’s not something I desperately want to do and can’t. We can pretty much do everything; you need to find the time and money.

Travel, proximity and access are important factors when understanding repeat tourists’ tolerance to change. Participants who had visited the region regularly tended to restrict
travel to certain areas they were able to access and felt comfortable in. They established their own localised attachment to particular areas, as will be explained in more detail next.

4.2.4 Localised Areas and Sense of Place

Most participants have already explored other regions of Western Australia, such as the Kimberley and Broome and do not need to explore more places. As Bruce explains: “This is where we make our base now. I’ve been down the Kimberleys and all that, so you know, this is the area, yep.” For many participants the Ningaloo region is where they have decided to settle during the winter months. It has become more of another home than a holiday as Bruce highlights: “Home [away] from home, so it’s not a holiday.” Within their overall attachment to the Ningaloo region, participants have carved out localised places in which the majority of their recreational activity occurs. This trend is most noticeable among participants who stay longer and were regular visitors over several years (long-term repeat tourists) as opposed to participants that have visited three times or less over a shorter stay (short-term repeat tourist).

Long-term repeat tourists have already explored the area and have settled into a comfort zone or localised area. These localised areas are generally made up of the repeat tourist’s accommodation area (i.e. caravan park), the recreational area and the travelling route between locations. The recreational area can be made up of small areas over a larger region. Individual fishers, for example, may have several beaches in the one localised area that they visit regularly. Long-term repeat tourists do not usually venture out of their localised area because they are comfortable with the familiar environments. When discussing George’s knowledge of the extent of sanctuary zones, he describes what he calls his ‘little bit’. George’s awareness of the sanctuaries only extends to those in his localised area. Looking at a map the researcher has shown him, George explains:

Oh right yeah, and then there’s those couple [of sanctuary zones] which going by this map that’s a long way down you know, that’s oh Point Cloates, so really our little bit. Well there’s Mangrove Bay, that’s down
towards Yardie Creek, so really our little bit is round this area, Jurabi Point up there [and] around the coast a bit.

When speaking about places further away from his ‘little bit’, George’s knowledge became sketchy:

Well they’ve made sanctuaries from the second car park up to the reef, the wreck, that’ll be three-four kms, that’s four kms along there, the wreck road four kms down there, then there’s the bit for the turtle area I think isn’t there? Is that [a] sanctuary?

There is a strong sense of place among the long-term repeat tourists. They are aware of their small, localised areas and have created a ‘home away from home’ as a settling environment for themselves. By creating special names for favourite areas, long-term repeat tourists create a sense of ownership and belonging to those areas. When discussing her favourite areas Debbie talks about a place she likes to fish: “...then we go down further, umm, to a place that we call squid rock.” By personalising their localised areas, a repeat tourist’s place attachment and sense of place is further reinforced. George gives some examples of place naming:

We had our own pet names for them you know, like ‘Trevally Alley’ and ah, other people called a place ‘Paradise’... and those sort of names stick and place like ‘one tree’, and ‘one pole’, and ‘eagle post’, and things like that. People give them these names and you sort of refer to those.

Short-term repeat tourists who have visited the region fewer times are less likely to travel to a localised area. They tend to explore the whole region while participating in exploratory activities such as sight seeing, snorkelling and hiking. This notion of localisation can be seen when comparing three participants: George, Debbie and Thomas. George has grown accustomed to his specific localised areas, which are located near his
accommodation. He has been visiting for 14-15 years and rarely travels into other areas, such as the National Park.

Debbie, on the other hand, has visited five to six times and has developed comfortable fishing areas where she likes to go. She still, however, visits other areas such as Yardie Creek for picnics:

Um, because we have a boat, um... we quite often go over to Tantibiddi, because you can get a boat in there, or we go down to the Marina. Um but we've (pause), even though we been here quite a few times we still quite often go out to Yardie Creek right down to the very end... for a picnic, umm to spend a day down there.

Thomas has visited the Ningaloo region three times and has not got a particular area to which he has grown attached and visits regularly. He will still visit a range of areas that are not necessarily next to one another. Thomas highlights below that he participated in sightseeing and was spontaneous in making decisions about where to go and what to do:

Sightseeing - that was the main recreational activity. We participated in snorkelling but, you know, you also equally went for walks, swimming...we just went around and saw things.

Localisation, therefore, is associated with time and experience within the region. Repeat tourists develop an affinity with favourite areas that suit their needs. Debbie describes how she requires a flat surface to fish on: “[a place] that you can fish off the rocks and the rocks are fairly flat so we can sit.” This sense of place emerges as repeat tourists identify certain areas with intrinsic experiences, which link their activities to the natural surroundings.

These localities are a part of a repeat tourist’s sense of place and contribute to place attachment. Close bonds are developed with the localised areas and are expressed through
the concern and awareness repeat tourists have for these areas. A sense of place is linked to the localised areas of participants and will affect their awareness of the region (which will be discussed in section 4.4).

The tolerance of restrictions relies on the impact on a repeat tourist’s localised area and how they intrude on that person’s sense of place. If restrictions such as sanctuary zones are placed in a repeat tourist’s localised area, they may simply leave the region rather than explore alternative areas. This limited tolerance is due to the intrinsic attachment people have to specific places. When discussing possible scenarios and whether it would depend where the sanctuary zones were located, Debbie stated: “So I think, as long as they don’t close the areas that we know we’re comfortable fishing in we’ll continue to come back.” When discussing tolerance levels, Betty suggested she would still return at 50% restrictions if the beaches she enjoyed were still available:

As long as we still had some good places to fish. It would depend where they closed them [the fishing areas] off of course but, the ah, if the ones [beaches] that we find accessible [were still available]. We like them [the beaches] that are a little bit difficult to get at because less people go then, so yeah...I think we would.

As previously discussed, localisation can also relate to the notion of access. Repeat tourists with two wheel drive (2WD) cars would have different access and, thus, different localised areas to four wheel drive (4WD) car owners. When discussing scenarios of change and how placement of sanctuaries on his localised area would impact on tolerance, Lindsey said: “Oh well, if they close those down there would be no sense in coming back because anything left would be 4WD.” Localised areas are typically made up of recreational places where the needs of the individual can be met. Whether that is having 2WD access, flat surfaces to sit (Debbie) or having slightly difficult access (Betty), the repeat tourist becomes accustomed and comfortable in these areas. This creates a sense of place and familiarity, which develops into a strong sense of place attachment as the repeat tourist continues to frequent the area. Although tolerance can be affected by a repeat
tourist’s current recreational activities and localised attachment to particular areas, the social environment that recreational activities occur in can also influence tolerance. The next section will discuss the participants’ perception they have of themselves as a tourist and their attitudes towards tourism growth in the region.

4.3 Social Environment

4.3.1 Wilderness Camper

The tolerance threshold of repeat tourists can be affected by differences in their background, attitudes, expectations and experience. It is important for management to concentrate on the tourist types that are coming to the area. However, it is interesting that none of the participants mentioned the domestic or intrastate tourist as a primary visitor to the Ningaloo region. According to Tourism Western Australia (2007), intrastate visitors accounted for 52% of total visitation to the Shire of Exmouth for the annual average over 2005 and 2006. While interstate visitors accounted for 20% and international visitors accounted for the remaining 28% of visitation numbers. The participants, particularly the long-term repeat tourists did not see themselves as ‘tourists’. They appeared to identify themselves more as ‘seasonal visitors’ or ‘wilderness campers’. The participants’ sense of individuality, self-sufficiency and belonging to the wilderness areas in their perception, separated them from the typical repeat tourist.

The participants in this study appear to be more self-sufficient as they travel in small groups and gather supplies to last a while rather than making regular trips into town. As Adam commented: “No we camp on the beach. So we 4WD in and, yeah, we take campers and it was all self-sufficient.” The participants did not require large commercialised precincts such as facilities to contribute to their enjoyment of the area because they come for the natural environment and wilderness experience. This notion of self-sufficiency links to the main reasons for visiting, which are intrinsic benefits and the weather. In fact, any commercialisation that does not fit into the community atmosphere of the Ningaloo region will most likely affect the repeat tourist’s tolerance for change as
discussed earlier. The dislike of commercialised areas such as Broome, is reflected in Betty's comments:

We like this because we don't go, like, in Broome there's a lot of nighttime activity, which we don't need...now. So maybe that has something to do with it. It's more commercialised Broome.

However, participants did indicate that the type of accommodation offered in the Ningaloo region (predominantly in Exmouth) was changing. The camping and caravan facilities reflect the wilderness and self-sufficient attitude of repeat tourists. However, it was perceived that some of the caravan parks have recently been putting more chalets in. This change may suggest a shift towards higher spending tourists. Eleanor noticed this change:

Yeah they are filling them [caravan parks] with chalets and they don't want, um, the older people in the parks, that is what's going to happen because they are doing away with caravan sites...yeah that's what's going to happen. They're doing away with caravan sites but [the caravan park owner] is not [doing that] here, it's still caravanning here so, and camping you know which is very good.

As Eleanor discusses, this change would have a negative affect on the current repeat tourists and their sense of place. If the atmosphere and feel of the area changed, repeat tourists may seek a different environment where their needs can be met. As discussed earlier, the participants did not view themselves as repeat tourists, rather the majority appear to view themselves as part of the wilderness landscape in which they undertake their recreational activity. This self-identification of 'wilderness campers' relates to their tolerance threshold.

They value their sense of rugged individuality of not needing shops and resorts. Thus, management techniques that assist in preserving this personal identity are valued. Adam
discusses the importance of saving the area for camping: “The areas should be saved for the people who want to camp in there [the national park] and get back to nature a bit … just [to] sit back and enjoy the beautiful water and beautiful sunsets.” Due to the sense of place attachment to the wilderness destination, restrictions that control tourism growth and attempt to preserve the natural environment in which activities take place would be tolerable.

4.3.2 The Tourism Industry and Development

The growth of tourism in the Ningaloo region through developments and visitor numbers will have a subsequent affect of increasing management to control any negative impacts. The management changes required, such as number restrictions, would have a negative affect on repeat tourists’ tolerance thresholds to changes to the destination and their activities. Tourism was perceived as the primary industry in the Ningaloo region with fishing also mentioned. This perception may be because the participants were repeat tourists themselves. The main attraction for tourism was suggested to be the whale sharks and the marine environment as noted by Kristopher: “Exactly with tourism, there is a lot of people coming up here to [do], well what we did, swim with the whale sharks.” Tourism is viewed as having a positive impact on the Ningaloo region because it brings an income for local businesses. When discussing what he thought of tourism, George suggests it is beneficial to Exmouth:

Oh I think its good for the town and it’s only a small town and it’s fairly isolated, well it is isolated and I think it’s good for the town and the tourist seem to enjoy it, I think it’s a good thing.

Debbie added:

It would have to bring a lot of, um, money into Exmouth. I think because of the temperature here they would really, they would, put everything they’ve got into this time of the year.
However, further commercialisation may not be viewed as suitable because it would impact on the repeat tourists' sense of place and limit their tolerance to change. Eleanor discusses the negative impact on the community if the town continues to grow:

I don't know, it's growing, it's going to outgrow us... It will not be the working man's holiday place because they are not developing it that way; they are developing it for the richer people. You've only got to look at the marina and see what they are doing out there.

Bruce and his wife support this view and suggest that tourism should not expand too much: "Yeah well no, I don't mind, but I like to have it, you know, just enough people and that's it. Not like Broome or anything like that...well I don't think tourism is quite for here really." Although there is an acceptance that tourism is good for the economy, many participants are reluctant to see the area become commercialised. Commercialisation is associated with noise and activity, thus the Ningaloo region will no longer be a quiet and peaceful escape from society. Repeat tourists who predominantly come for the peace and calm of the Ningaloo region would have less tolerability of growth and commercialisation.

When asked about the developments and new channels that are being constructed as part of a housing estate and how they would impact on the area, Ray answered: "I don't know, I just wonder whether the channels belong to Exmouth to be honest." The feeling of place attachment for the Ningaloo region does not include large developments, which will alter the perception of the region, because it will lose its unique characteristics and feeling of remoteness and escapism from society.

The only participant who discussed the likelihood of mass tourism developing was the Dutch tourist Kristopher. Perhaps this is because of his background and experience
combined with his lower sense of place attachment as he has only visited twice. When discussing the economy in the area, Kristopher's comments suggested that although he did not think mass development was a good idea, he believed it was inevitable: "As soon as ecotourism increases in the end you end up with mass tourism anyway." Kristopher continues with this line of thinking below when discussing the new developments and hotels:

Yeah the people building that [five star hotel], I'd say do it as an investment because they want people to come in and spend a lot of money, so they [the developers] wouldn't be that worried about the environment. I think that's what you get when things get more popular.

He goes on to say:

Yeah, it's unique and I think it will end up like some of the east coast with the big hotels and everything, which ... might not be good.

His Australian companion, Rebecca, was less inclined to suggest mass tourism would occur and focused on ecotourism and ways to control large numbers of tourists. She notes: "They'll probably go more towards the ecotourism as well because it looks like it's heading that way." The difference of tolerance thresholds between tourist types is important when controlling growth and implementing restrictions such as tourist number limits.

The difference in culture was also evident when discussing crowding and personal space. International repeat tourists may be more accustomed to less personal space, affecting their tolerance to change, such as increased tourist numbers or more restrictions, which may focus more people into a smaller area. Rebecca and Kristopher reflect this attitude in their comments. When discussing crowding, Kristopher says: "Yeah, and like, I'm used to beaches in Spain and France and you just, you're happy if you get a square metre", whereas Rebecca says: "So it probably doesn't bother international tourists as much as it
would bother Australians I think.” The type of tourism development at Ningaloo will impact on the type of tourist that will be attracted to the region. This trend in turn will affect their tolerance level for destination changes related to crowding and development that occur in the natural environment. Their views on the environment also play an important role in determining their threshold level, as will now be discussed.

4.4 Natural Environment

4.4.1 Environmental Awareness

All participants showed an environmental awareness and concern about current and future impacts on Ningaloo, which also helped define their tolerance threshold for changes that affect the environment. This concern typically increases the more times a repeat tourist has visited the region indicating a developing place attachment to the area. Debbie discusses the importance of boundaries because she is aware of the importance of the area: “I think you need to have those boundaries in place because people do take advantage of it [Ningaloo] and then we lose what we’ve got here and that’s important that they keep this [place].” Similarly Bruce shows his awareness of the reefs’ importance and uniqueness: “I think that’s what it’s all about, protecting the reef, because there’s not many reefs left now...and this is one of the best ones.” Some concerns include the lack of drinking water and the impact of more people. This awareness shows an understanding of current issues and suggests that the repeat tourists are educated as Ray’s remarks indicate:

Oh yes that’s right, a lot of problems here with a lot of it. If they get a big population growth... I wonder what’s going to happen. Desalination of course will always provide the water.

Rebecca indicates her concern of more people visiting the Ningaloo region:

Mm, the more people there are the more likely it is that people will go off the paths to try and get there first or find somewhere no one else has been.
The importance and value of the area primarily resides in the marine environment. As Rebecca points out: "[the] coral would be very valuable." As noted previously, the marine environment is a major attraction. Tolerance would relate to how the marine recreational activities are restricted and impacted on by the restrictions. The marine environment is therefore important for the local economy through tourism. Debbie highlights the uniqueness of the whale sharks experience:

> There are not many, very many, places in the world that you could actually go out in the boat and be lucky enough to swim with whale sharks.

This perception does not diminish the importance and diversity of the terrestrial landscape; however, it highlights the uniqueness of the marine environment and the necessity of conservation. Thomas discusses the importance of the whole area, terrestrial and marine, as a representation of Western Australia:

> I think the whole area is really interesting. But I mean, that’s WA as well, it’s an accessible part of remote Western Australia. So it’s somewhere people can go and see what the rest of it [is like] ...you know, its sort of a little area that says this is what Western Australia is about. So I guess that’s a good [thing]...it’s easy for people to go there.

The majority of repeat tourists saw very little of the visible environmental impacts that are common in tourist destinations such as litter and erosion. When asked about litter Debbie answered: "I think it is quite good with the litter up here, I think people respect the area." The lack of litter at the tourist spots was surprising and suggests that there is an awareness and value of the environment by a large proportion of repeat tourists. As Ray explains: "The attitude has changed without a doubt; take your plastic bags home and that sort of thing." The type of tourist attracted to the region may also contribute to the environmental attitude. A tourist who is attracted to the wilderness experience and values the
environment is more likely to go to the natural destination in comparison to a human-centred tourist who enjoys commercialised resort type destinations.

The implementation of sanctuary zones was perceived to possibly have an effect on other species that were not under threat such as sharks and octopi. This perception can have a negative affect on recreational activity and affect tolerance to indirect changes. An increase in sharks for example may increase the competition at popular fishing areas, as sharks steal fish off fishing lines. These kind of changes could result in repeat tourists going elsewhere if the growth of other species impacts on a repeat tourist’s catch too much, as Lindsey discusses:

Yeah so we sort of stopped going into that area until the sharks got the message and shot through. So, no, they’ve been pretty bad this year. The fish have been bad, and the sharks have been [really bad].

The current sanctuary zone restrictions may be perceived as creating this increase in predatory species and would impact on a repeat tourist’s tolerance. The participants also noticed an increase in octopi and turtles as well as sharks, as Betty explained:

She [a friend] just walks and looks and she said there are huge octy [sic] just lying on tops of the rocks you know, but they’ve getting bigger and they get your bait when you try to fish.

Lindsey noticed the increase in turtles and sharks:

You see turtles which are becoming a nuisance there’s that many of them, there’s a lot of turtles...That particular shark had been around awhile because it’s taken two fish of mine one morning. But I mean there were a couple of guys fishing along and they lost a couple of fish to the same, well, [shark]. There were two sharks there actually I think ‘cause I seen another one.
Although participants show a deep concern for the whole Ningaloo region, environmental awareness is also typically localised. Participants had a broad knowledge of the natural environment, general issues and sanctuary zones associated with the whole Ningaloo region but had more focused information on their own area. When asked about sanctuary zones, Ray highlights the extent of his knowledge:

I don’t go down very far, I go down to visit but not to fish, I probably only do the first 10kms from the lighthouse down. I know that [area] fairly well but from there down, the sanctuaries I’m not aware of. I know they’re there, I’ve seen them on the map but I’ve never taken much notice of their size.

This localisation of awareness, as discussed earlier, may be important to consider when changing restrictions, as some repeat tourists may need more information from management agencies about where exactly the new restrictions are.

4.4.2 Wilderness Experience

This section relates to section 4.3.1, the wilderness camper, but instead explores the intrinsic appeal of a natural or wilderness area rather than the impact of development and accommodation type on a repeat tourist’s tolerance threshold. The majority of participants enjoy the Ningaloo region because of its trouble-free and wilderness atmosphere. It allows repeat tourists to get ‘back to basics’ and experience life free of complicated problems. The repeat tourist that visits the Ningaloo region largely seeks the serenity that a wilderness destination offers. The simplicity of activities and the simple pleasures derived from them are what the repeat tourists are seeking to fulfil their, one might say, ‘spiritual’ needs. As George notes: “We just like it, peacefully stand there and sing our songs.” The Ningaloo region and its wilderness experiences have a significant positive impact on the mental well being of participants. The reasons to visit all reflect a calming effect on participants in who all appear content and relaxed when discussing their experiences.
Even interaction with marine life, such as the whale shark, can have a spiritual effect and produce a feeling of awe and reverence for the environment. Adam reflects the spiritual significance of the Ningaloo region through his experiences in the wilderness: “...sitting around an open camp fire with absolutely clear sky above you.”

Campers enjoy the wilderness aspect and preferred the ‘back to basics’ style of escapism. By camping in the natural environment participants are able to connect to their surroundings. The lack of commercialisation helps to reinforce the notion of being out in the wilderness away from society as Rebecca suggests with her view of Ningaloo as “not being too built up and controlled.” Adam explains the notion of ‘getting back to basics’ and experiencing the natural environment:

Yeah, just the enjoyment, breaking up your normal day to day routine of working. It’s good to get away for two weeks and yeah, get back to the basics, have no power or TV, yeah just walking along the beach.

A sense of place and place attachment are strengthened through a connection to the environment, such as the interaction with wildlife, and activities that rely on the natural surrounds. This interaction can include snorkelling, hiking, fishing or simply sitting on a chair watching the sunset. These interactions form the basis of a wilderness impression and do not include activities such as mini golf or swimming in a resort pool because these are constructed experiences. When discussing the experiences that they had, all the participants highlighted natural interactions, as Bruce explained:

Yeah well see, there’s places where the turtles and all that come in and all this you know and, there’s, down the west side there’s a lookout and all that, there’s bird sanctuaries and things like that, you can go watch birds and all this you know. Nah its pretty good really down that way.

This interaction can also be an important conservation tool for new comers. By connecting them to the environment through intrinsic interactive experiences, repeat tourists can gain
an understanding about the fragility of the area. Repeat tourists that have visited the area more often have an affinity with the Ningaloo landscape due to increased exposure to shared or individual intrinsic experiences. When asked how he felt about the area, George gave an insight into his own intrinsic valuation:

Yes, some good fishing spots you know, there's rocky ledges to fish off and beach fishing you know? You get sand in your toes and we've got boots that we can walk on the rocks without slipping and breaking our necks which you need if your going to fish regularly.

It is important to take into consideration the intrinsic experiences that repeat tourists want when implementing restrictions. If the restrictions impede too much on the feeling of wilderness, escapism and freedom then repeat tourists will be more inclined to visit a region free from obvious and intrusive constraints.

4.5 Management Techniques

4.5.1 Restrictions

All participants expressed their awareness of the sanctuary zones and the value of having them in some form or another, such as Ray who noted: “Oh I think the zones are a good idea.” They accept the need for management to stop the Ningaloo region being destroyed by over use. Bruce recognises the importance of sanctuary zones as a “necessary evil” and like many participants believes their significance is in providing breeding grounds for fish as well as protecting the reef from damage. Lindsey, for example, discusses the issue of damage in relation to boat anchors: “Some of the boats you could go on, they say they used to throw their anchors over the top of the reef and fish on the reef, they’ve stopped that.” When asked if sanctuary zones were necessary Bruce replied: “No, no I think you've got to have zones for breeding purposes, I do. Yeah [you’ve] got to have sanctuary zones.” Participants’ attitudes align with the environmental awareness and values that they
have for the Ningaloo region. Their attitudes may also be reflected in the type of tourist that is attracted to the Ningaloo region as discussed earlier.

There are several types of restrictions that were identified by participants during this study. Restrictions included techniques that are implemented to help manage the Ningaloo region, such as pay stations, sanctuary zones and information centres. Another type restriction, which was noticed during this research project, was the inadequate supply of facilities and services, such as the limited supply of cleaning bays, boat ramps and tracks. Whether deliberately done or not, they were able to restrict participants to particular areas. As Lindsey highlighted: “I’ve only got a 2WD so I can only just go to limited areas.” Repeat tourists have to go to these areas to use the facilities and due to proximity and travel they would not travel too far away from where the facilities are provided.

This restriction has the ability to control where repeat tourists travel and how far they go. By simply not providing access or facilities this method could be seen as less intrusive than other methods. However, it may have negative impacts on repeat tourists’ perceptions of managing bodies in that they are not catering for peoples’ needs. The most notable example of negative impacts has occurred with the removal of bins to encourage people to bring their rubbish back with them. Lindsey discusses the negative impact of this management technique:

[They] took the bins away. So if you see anything like that [i.e. litter] on the beach, anything you find, I’ll say well, I’ll throw it up in amongst the dunes because I can’t cart everything back out to bring it home to find a bin. And when you come home you get caught putting stuff in some of the bins like that, you’ve picked up out off the road somewhere, they’ve [i.e. caravan park owners] got to pay to have their bins emptied and you fill them up too much if you bring home rubbish so you know, you find it. I think it’s not a good thing that they’ve taken the bins away.
Although restrictions and sanctuaries are accepted, there is disagreement over how they should be managed. Participants made suggestions of perhaps using alternative, less physically restrictive methods to manage the area. The most prominent suggestion is the reduction of bag limits. In this regard, some participants merely wanted an alternative but were not sure which was more appropriate, such as Adam for example: “Yep, um, yeah sort of restrict the bag limit and the fish size I believe to still let people fish there.” Eleanor believed that bag limits needed to be reduced further:

Bag limits yeah that should be halved, think it should be halved. As you go out, if you go out fishing like at the moment you can get four snapper and you can go back out in the afternoon and catch another four. No it should only be two, one or two, because you don’t need it (Eleanor).

Options such as catch and release zones as well as bag limits were suggested by Fred: “but if the pressure gets up then maybe you can introduce tighter bags limits...or they could just catch and release rather than catch and keep.” Catch and release techniques could provide the intrinsic benefits of fishing without removing fish stock. However, repeat tourists would require constant monitoring to ensure no one takes advantage of catch and release areas, which unfortunately may be beyond the scope of available human resources in the Ningaloo region. Alternative methods such as bag limits are perhaps seen as less intrusive ways to manage the Ningaloo region. When asked hypothetically if he would continue to return to Ningaloo if half of his favourite fishing areas were sanctuaries, Lindsey did not believe that the increase in sanctuary zones would help the fish stocks:

Well I don’t know if it’d be any benefit to the fish. I think they’ve just got to police it more and put bag limits down. Because it’s not a matter of where the fish are going to breed, it’s where people are catching them and where they’re catching them there are no sanctuaries naturally. So ah, the only way they’ll keep stocks up is if they cut down on the number if they’re catching them. Until they do that I don’t think they’re going to be successful much, even with their zones.
Restrictions are perceived as a social constraint because they symbolise management, rules and governance. The intrinsic reasons for visitation, which are to escape modern society and experience the wilderness and outdoors, may be negatively affected by the restrictions. Sanctuary zones may be perceived as restrictions that physically bar recreation and intrude on the notions of freedom and escape. Whether sanctuary zones are a real threat to these intrinsic experiences or not, it only matters whether they are perceived as such by repeat tourists as it will affect their tolerance of increasing sanctuary zones. The increase of sanctuary zones would likely be connected to an increase in societal boundaries, which initially repeat tourists intended to escape. When asked about how much management she thought there should be, Debbie answered: “I think sometimes it can be too much and it spoils it. But where you draw the line I don’t know, I just, I’m not too sure.” This shows concern about over-management and how it affects the intrinsic experiences of the Ningaloo region, although recognises the need for some level of restriction.

Adam perceives these restrictions as impinging upon his enjoyment of the area, not just as a constraint to his fishing. Adam discussed the appropriateness of sanctuary zones and how he thought less sanctuary zones coupled with different methods of controlling fish stock would assist his tolerance because it would allow him to enjoy the intrinsic benefits. For example he said: “Yeah instead of just barring people from enjoying the nature and beauty of the place.” Although participants agreed that there should be some sanctuary zones and restrictions, it is necessary to keep repeat tourists informed about changes, as well as educate them as to why restrictions are important.

4.5.2 Education and Information

Education and information are important methods in increasing awareness about current and future management techniques. By providing interpretive information repeat tourists are more tolerant of restrictions because they are informed in advance and understand the reason behind their implementation. The educational facilities were seen as adequate and
important for the Ningaloo region. Signage and information centres were seen as essential elements to a short-term repeat tourists’ experience. As Kristopher noted: “you can just hop into the visitors centre and get a map and it’s all there, so you can find everything pretty much… and the signs are good.” As this area is a growing tourism spot and will likely attract new tourists as well as short-term repeat tourists, information in the form of signs and centres will assist in the management of the Ningaloo region, as Rebecca describes:

I was impressed that there were signs at Turquoise Bay and places like that, to show where the drifts were and stuff, that was kind of [good], even though you’re in a National Park and it’s kind of remote. There’s still enough information around.

Participants who have been to the area regularly already know their way around without the use of signage. Important educational facilities for long-term repeat tourists were the information booklets and personal contact with the management bodies. These media were valued because of the perceived inconsistency of rules and regulations and the need for access to updated information. When asked about what she thought of the signage of sanctuary zones, Debbie replied: “I think it’s a bit of a grey area up here, we’ve learnt where some of them are and we always get the books when we come up here because it changes every year.”

Education can help by increasing awareness and promoting protection of the Ningaloo region. By providing relevant information and interactive experiences, repeat tourists are able to learn about the importance of the region and develop an understanding of the value of protecting it. When discussing her awareness of damaging the reef by snorkelling and the temptation to touch the coral Rebecca said: “I’ve seen it on the signs” and “Yeah, but they make you aware of it so I think that’s kind of good.” This awareness can be created by tourist operators as well as management bodies, and is another form of educating repeat tourists. By combining the intrinsic experience of wildlife interaction with information, for example, understanding may be easier to develop because of a connection
to the environment and wildlife. Adam discusses the importance of tourist operators as an educational medium when discussing educational facilities:

I think most of the education would come from a lot of the service providers like the whale shark boat operators. They're pretty much full of knowledge so you get lots of knowledge passed on from them.

The more repeat tourists being exposed to this region's environment, the wider the understanding. Adam, for example, feels the more people who see the area, the better it will be: "The more people who see it the better knowledge they have of everything and then they sort of take on the feeling that they sort of want to help in a way."

There may be a lack of knowledge of what is right and wrong regarding first-time or short-term tourists and repeat tourists. Rules and regulations, such as fish species that can be caught legally, are difficult to learn and individuals who simply want to fish straight away may not attempt to seek advice to learn about the correct species. Participants suggested that the regulations are difficult to learn and that these short-term tourists may contribute to the majority of non-compliance incidents. As George explains:

It's hard to teach the casual fisher people I think...as [opposed to]...the regulars because the regulars know what they are getting and the other people [casual fishers] think 'yay I got a fish'.

The participants suggest that there is plenty of information and perhaps this non-compliance is more than likely attributed to laziness than ignorance. As Ray argues: "nobody could plead ignorance." When discussing the abundance of information about the regulations, Bruce says that it is up to the individual to get the necessary information. However, although the regular fishers imply that the information is readily available, it may be difficult for short-term tourists to work out where to go. If information is too difficult to obtain then these individuals may not endeavour to get it. Long-term repeat
tourists are also aware of where the information is and, thus, it may be perceived as simple to locate, as Bruce discusses:

Yeah well if you go to the fisheries department they’ll give you pamphlets and show you were all the sanctuaries are and where you can fish and where you can’t fish [...] and they show you all the beaches down the other side you know, so really it’s up to you.

A common theme when discussing the appropriateness of restrictions was the reliance on experts and research to provide substantiated evidence. If the restriction is not perceived as necessary then repeat tourists may feel resentful and annoyed, particularly towards management bodies. As Adam notes: “Exactly yeah, give them [the visitors] a bit of proof to say why, otherwise people don’t understand why you’ve gone and cut it off.” This confusion is demonstrated when Betty discusses how the octopi numbers have increased and why she isn’t allowed to take a few for bait:

You’ve got to go somewhere else to get them but, um, we have found in this two and a half [section] off the leg road that we go [to], that you get caught with octy [sic] all the time, so they’re multiplying. So I don’t know why you can’t take a few you know.

This confusion may lead to resentment if the issue continues or gets worse. As well as evidence and proof of negative impacts, repeat tourists need to be made aware of any positive changes that occur. This information will let repeat tourists know whether the restrictions are working or not and allow the Ningaloo community to feel as though they are involved in the management of the area. As discussed earlier, by sharing this information, the community can feel empowered and have a sense of ownership of the area. This empowerment can enhance place attachment and make individuals proactive about protecting the area. Without this knowledge the participants were unsure whether the restrictions are working and what damage was actually being done, as Rebecca demonstrates:
I mean if we knew exactly what damage was being done and how it was affecting [you], you'd probably think that the sanctuaries should be a lot more or something. But it's hard to tell ourselves because we haven't seen much damage or effect of anything.

By having the knowledge to understand the restrictions and to be able to be involved in the projects might increase the tolerance that repeat tourists have for changes to their recreational activities. In order to have the knowledge to inform repeat tourists of changes and the reasons behind them, it is important to have research and experts that repeat tourists can trust. Many participants acknowledge their reliance on experts due to their lack of specific knowledge. When discussing the need for sanctuary zones, George suggested that research and expertise was important:

I think you've got to have them, its up the experts to decide how much and they've got to sort it out with the ah, to please everyone really and they can't (laughs).

Rebecca also discusses the importance of research for the long-term sustainability of the Ningaloo region and its marine environment:

Research is really important, just monitoring what's going on and not just counting fish. But, like, also longer term, I don't know, what's longer term? If they actually come back, like the whale sharks for instance.

There are many elements to education and information and they are all important in managing the tolerance of repeat tourists to the region. If repeat tourists can understand the reasons behind restrictions and are able to accept the need for them, they are less likely to become resentful, pack up and leave. By involving community members in the long-term sustainability of the region, repeat tourists can have a vested interest in the area rather than simply seeing it as another holiday destination. This community involvement
cannot only improve relations between stakeholders but also assist management in monitoring the area through feedback from repeat tourists.

4.5.3 Conflicts

Attitudes towards management agencies appear to be negative, with the Department of Environment and Conservation (DEC, referred to as CALM by participants as the name of the agency has recently changed) perceived as having too much authority. This authority is noticed by Betty when she notes: “CALM have too much to say” and is supported by Eleanor when she says: “They are, they are too powerful.” These attitudes could largely be due to the negative experiences that participants have had with DEC when the management agencies have imposed or changed restrictions. The dialogue between George and Betty below demonstrates how DEC’s decision to start blocking off tracks negatively affected their attitudes towards the management agency. George begins:

Mm, there’s no ah, cooperation by the sound of it. They might say differently but, well, a few years ago when they first started getting enthusiastic about cutting off some of these tracks, we were down this fire track one day and we were there from 8 or 9 o’clock in the morning until 3 in the afternoon and when we came out we came round the corner of the sand track and all the road had been dug up - all the harder track had been dug up with a bulldozer, all ploughed up.

Betty continues by saying:

Block[ed] off the other end, they hadn’t bothered to come in and say you know you better get out before we block it off, so we had to go through the bush.

The Department of Fisheries (DoF) are also viewed with disapproval, as they are perceived predominately by the recreational fishers as not having enough control over
fishing regulations. Although the primary management body is DEC, the primary regulatory body is the DoF. Participants feel, however, that the power is unequal between DEC and the DoF. For example, Eleanor said: “Well the fisheries have some [power] but, um, CALM sort of makes the rules.”

There is confusion with some of the rules and a perceived lack of cooperation between the two departments, which may create a lack of confidence in the system. This lack of confidence can affect the tolerance levels towards change if repeat tourists are suspicious of the management motivations. As George remarks: “But, um, it seems to be a lot of friction between CALM and the fisheries doesn’t it”? There is an overall understanding of what is required but the specific details of the regulations appear to get mixed up. This confusion is made worse by the perception of differing opinions from the different management groups. Betty and Bruce indicate their key frustrations when discussing the regulations about removing marine life from sanctuary zones. Betty highlights her irritation:

Well nobody seems to know where you can or can’t, it’s a grey area. Some say you can’t and others say you can, but some people are still taking them [octopi].

Bruce outlines his confusion over definitions of fish species:

Its hard to tell what’s ...the difference between one [whiting and another]... because they [the DoF] come up and explain to us one day what a yellow fin whitening was ...and what they told us [were yellow fin whiting] weren’t [the] yellow fin whiting that I reckon are yellow fin whiting.

The participants’ opinion of the management techniques and how they affected their recreational activities would largely impact on their level of tolerance for changes. If
repeat tourists have had negative experiences, they may be less likely to view change positively.

### 4.5.4 Tolerance to Changes in Sanctuary Zones

The initial awareness of sanctuary zones is generally limited to the participant’s localised area of recreation, as discussed earlier. This awareness was reflected when participants were asked about how much they thought the Ningaloo region was already sanctuary zoned. The majority of participants’ answers, particularly the long-term repeat tourists, focused on their own areas because that was the limit of their detailed knowledge. George demonstrates this point when he refers to the percentage of ‘our’ fishing area: “So getting back to your question we’re looking at 25 or 40 percent of our fishing area has become reserve but we can still fish.”

The question which asked about participants’ awareness of how much sanctuary area there currently was produced varying results, and could be attributed to the affect of localisation and how much the restrictions have already affected their recreational areas. Debbie describes her awareness: “I would say probably 65% [sanctuary].” Adam believed the sanctuary zones were a little lower: “I’d probably say around the 40% mark, I believe of the whole park, it’s a fairly big park but I mean sort of most of the actual reef.” Rebecca was in-between Debbie and Adam: “I’d say it be more than 50% but, I don’t know. Don’t know how deep, like how far out to sea.” Although Debbie and Adam were both boat fishers, they used different areas to fish, which may account for their differing opinions.

The majority of participants guessed that sanctuary zones covered a larger area than they actually do (currently 34%) as shown in table 4.2. The difference between what the participants believed were the sanctuary zones and how many sanctuary zones they would tolerate were small for the recreational fishers. This difference suggests they have a limited tolerance for change because the restrictions affect their recreational pursuits the most.
Several participants opted for no change to sanctuary zones and no participant believed there should be a decrease in sanctuary zones. This opinion could be because participants have become accustomed to the current restrictions and have adapted their behaviour to suit them, as Adam notes: "The restricted areas are already in so people are fairly used to the areas that they are going to now." Or perhaps because they believe the current sanctuary zones are warranted and necessary.

As shown in table 4.2, the largest degree of change (50 - 85%) is from the snorkellers and sightseers as almost 100% restrictions would enhance their recreational activity rather then restrict it. The majority of long-term repeat tourists noticed an increase in the sanctuary zones during their time at Ningaloo. As Ray noted: "Oh yes they've increased since we've come here, there was none when we first came." As expected the non-fishing repeat tourists did not notice an increase in the sanctuary zones. However, Lindsey did not notice any increase in sanctuary zones and he is a long-term repeat tourist and an onshore fishermen. Lindsey discussed how there was going to be an increase but it did not go ahead. This perception may be because there was not much change to onshore fishing areas, and thus Lindsey did not notice an increase in his localised area:

Oh I don’t think so, I think they had their zones when we started coming here. I don’t think they’ve increased at all. As I said they were talking about it, but god there was hell to pay about it... Then as the fisherman said, ‘Well we’re not damaging the reef because we can’t get out that far, you know, to do any damage, so we’re only catching fish that are swimming by’ ... They have definitely got sanctuary zones for boats but as far as the beach fishing is concerned I don’t think there’s been an increase in the, ah, sanctuaries.
Table 4.2: Sanctuary awareness and tolerance to change

<table>
<thead>
<tr>
<th>Participant</th>
<th>Perceived current sanctuary</th>
<th>Noticed increase</th>
<th>Tolerance level of increase</th>
<th>Difference</th>
<th>Primary Recreational Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>George</td>
<td>25-40%</td>
<td>Yes</td>
<td>Less than 70%</td>
<td>&gt;30%</td>
<td>Onshore fishing</td>
</tr>
<tr>
<td>Betty</td>
<td>25-40%</td>
<td>Yes</td>
<td>Less than 70%</td>
<td>&gt;30%</td>
<td>Onshore fishing</td>
</tr>
<tr>
<td>Ray</td>
<td>Unsure</td>
<td>Yes</td>
<td>33%</td>
<td>N/A</td>
<td>Onshore fishing</td>
</tr>
<tr>
<td>Jean</td>
<td>Unsure</td>
<td>Yes</td>
<td>Not specified</td>
<td>N/A</td>
<td>Onshore fishing</td>
</tr>
<tr>
<td>Bruce</td>
<td>~50%</td>
<td>Yes</td>
<td>~50%</td>
<td>0%</td>
<td>Fishing (Onshore &amp; Boat)</td>
</tr>
<tr>
<td>Kristopher</td>
<td>50%</td>
<td>No</td>
<td>70-100%</td>
<td>30-50%</td>
<td>Snorkelling</td>
</tr>
<tr>
<td>Rebecca</td>
<td>50%</td>
<td>No</td>
<td>100%</td>
<td>50%</td>
<td>Snorkelling</td>
</tr>
<tr>
<td>Lindsey</td>
<td>Few (no number)</td>
<td>No</td>
<td>Stay Same</td>
<td>0%</td>
<td>Onshore fishing</td>
</tr>
<tr>
<td>Eleanor</td>
<td>Few (no number)</td>
<td>No</td>
<td>Stay Same</td>
<td>0%</td>
<td>Passive activities (knitting, watching her husband fish)</td>
</tr>
<tr>
<td>Debbie</td>
<td>65%</td>
<td>Yes</td>
<td>Stay Same</td>
<td>0%</td>
<td>Boat fishing</td>
</tr>
<tr>
<td>Adam</td>
<td>40%</td>
<td>Yes</td>
<td>45-50%</td>
<td>5-10%</td>
<td>Boat fishing</td>
</tr>
<tr>
<td>Thomas</td>
<td>15%</td>
<td>No</td>
<td>100%</td>
<td>85%</td>
<td>Sight seeing</td>
</tr>
<tr>
<td>Fred</td>
<td>50%</td>
<td>No</td>
<td>100%</td>
<td>50%</td>
<td>Snorkelling &amp; once off boat fishing</td>
</tr>
</tbody>
</table>

Note: The current sanctuary zones are 34%, which was increased from 10% in 2005 as discussed on page two.

Most recreational fishing participants would not tolerate high increases in sanctuary zones and would like them to remain ‘as is’ because they have become used to them. As Debbie suggests: “I think where it is at Exmouth at the moment is really fine and I suppose I say that because we know where the areas are and it’s familiar to you.” If management agencies want to increase further zones or alter them, it would have to be achieved in small incremental amounts rather then all at once. Ray remarks:
I think that these conservation things have got to be introduced on a gradual basis rather than a ‘bang’ sort of thing. You get further by doing it that way than you do a blanket banning, if you like. I’ve always felt that about anything.

The gradual introduction of restrictions and other management techniques is important as it allows repeat tourists’ thresholds of tolerance time to adapt to change. Slow implementation and information about future sanctuary zones can assist in the transitional phase because the change is expected. It also helps to solve problems as they arise and allows management bodies more time to react and solve any conflicts.

Many participants, particularly the recreational fishers, said that they would not continue to visit the Ningaloo region if the sanctuaries exceeded their maximum tolerance threshold for change. If participants perceived the sanctuary zones as being too restrictive on their activities they would not re-visit, as Debbie discusses:

If we were to get there [Ningaloo] and they [management] turned around and said well you can’t go from Tantibiddi right up to where Mildura wreck is … and it meant you could only fish there [points to a small section on the map]. Well we wouldn’t do that because we can’t fish there it’s to rocky and then if that only allowed us this side [east side] that meant, when the winds blowing in your face here [east side], and you can’t go that side [west side then] it’s [the day] wasted. There’s no point in doing that because that means we’re sitting up here [at Ningaloo] doing something that we could do at home with less cost…so um, we would probably take shorter trips somewhere else where there are less restrictions.

It is important that managers understand the maximum tolerance thresholds of repeat tourists to ensure it is not exceeded. When asked what his maximum level of tolerance would be (that is to the point he would not return), Lindsey said: “Oh if they closed down some of the beach areas where we do fish.” He added that other restrictions such as 4WD
access would also affect some repeat tourists’ tolerance thresholds: “I think there’d be a lot of people [who wouldn’t return] because, ah, when they [management] were going to close these 4WD tracks down a couple of years ago, everyone said ‘oh well we won’t be back here again’.” Betty explains her maximum tolerance threshold for change on her activity, suggesting that as long as shore fishing was allowed, she will continue coming to the Ningaloo region:

We were worried when they [management] brought it [new zoning scheme] in because...it looked as if you couldn’t fish anywhere along here [points to her localised area on map]. But um, shore fishermen can still [fish], so while that still remains we’re still coming up but if they cut all that out [shore fishing] we wouldn’t come up.

George also suggested that if sanctuary zones covered all but 25% of the area he wouldn’t return: “But once it got down to, I think, if it got down to 25%, we’d say ‘oh forget it’.

Betty provided the reason for this intent not to re-visit if the sanctuary zones covered all but 25% of the Ningaloo region: “Probably because there’d be too many people trying to get down into the one spot.” The concern of overcrowding stems from the need for intrinsic benefits as discussed earlier, which would be diminished if growing visitor numbers where forced into smaller recreational areas. It is evident that the participants all had tolerance thresholds to which there was a maximum. This maximum tolerance level depended on how much the restrictions impacted on the participants’ recreational activity as discussed earlier.

4.6 Summary

During the research process, several important and interesting findings emerged. Four different areas were found to influence the repeat tourists’ tolerance threshold. These areas concerned their current recreational pursuits, the social and natural environment in which participants were involved, and the current and potential use of management techniques. Several themes were highlighted from these areas of discussion. One of the
common themes was the participants’ reason for visiting, which was predominantly for the weather or for intrinsic benefits. Travel, proximity and access were highlighted as factors that would impact on tolerance. These factors are important for management to consider when deciding where to place facilities and restrictions. The majority of themes were impacted on by localisation, which affected the participants’ awareness and sense of place.

The participants’ failed to notice the abundance of domestic tourists, which they themselves are a part of. This situation may be because the participants did not view themselves as tourists; rather they were ‘seasonal visitors’ or ‘wilderness campers’. The majority of participants were self-sufficient and were emotionally close to the wilderness surroundings that encompassed their recreational activity. Due to the value these participants have for the environment, management techniques that aim to preserve their rugged identity of independence would also be valued. The growth of tourism is seen as positive for the local economy, however participants view commercialisation negatively, and it would impact on their tolerance for change to their social identity as ‘wilderness campers’.

All participants had an environmental awareness of the Ningaloo region whether it was localised or broader. They experienced intrinsic interactions with the natural environment through participating in their recreational activity. The majority of long-term repeat tourists were more aware of their localised area as they had grown attached to the place through such intrinsic experiences. It is important that restrictions do not intrude on the wilderness experiences of participants otherwise they may lose their reason to visit.

Management techniques and their planning rely on using education and information to create understanding of restrictions for visitors. Education and interpretation can increase awareness, and this awareness can in turn increase tolerance and help reduce conflicts. Currently the management agencies are not viewed favourably and this feeling can be attributed to negative experiences and attitudes portrayed through a perceived lack of communication and co-operation between the DEC and the DoF. By forming good
relations with repeat tourists through education, conflicts and confusion over specific details of restrictions can be resolved. Personal communication and involving the community in discussions can assist in creating place attachment and an understanding of changes and, thus, increases tolerability.

Tolerance levels change depending on the recreational activity of the participant. In relation to the sanctuary zones, they impact fishers and extractive recreational activities the most; therefore people participating in those activities would have a smaller tolerance for change. Restrictions do not affect repeat tourists participating in activities such as snorkelling, swimming and hiking because they do not rely on extractive activities. Snorkelling and similar activities in particular may benefit from more restrictions because the restrictions protect the reason repeat tourists come to the area to snorkel, and that is the abundance of fish. Localisation was shown to have the greatest influence on tolerance thresholds of repeat tourists and applies to the majority of issues discussed in this chapter.
Chapter 5

Summary, Conclusion and Recommendations

5.1 Introduction

In this final chapter the findings of the study are summarised and the research objectives will be addressed. A revised conceptual framework will also be presented. This chapter will particularly focus on the factors that influenced the tolerance thresholds of repeat tourists and will outline some key recommendations for managers. The limitations of the study will be noted and recommendations for further research suggested. The purpose of the study was to explore the perceived effect of sanctuary zone changes on repeat tourists’ recreational pursuits. It focused on the factors that influenced a repeat tourist’s tolerance thresholds and the limitation of those thresholds to change.

5.2 Summary of Results and Findings

5.2.1 Localisation, Place Attachment and Intrinsic Motivations

The themes of localisation and place attachment emerged when addressing the first research objective: to explore the values and perceptions of the repeat tourists’ current recreational pursuits. Participants’ established localised areas in which they felt comfortable and safe to participate in their chosen recreational activity. Participants were very spatially and environmentally aware of their area. They also felt very strongly attached to certain areas, even giving places individual names. Participants had little spatial or environmental knowledge of the wider surrounding areas because they generally only spent their time in their localised area.
The importance of localised attachment needs to be considered by managers when implementing restrictions and sanctuary zones. For repeat tourists, the Ningaloo region consists of individual localised areas. Managers need to be sensitive when placing a sanctuary zone in a new area as repeat tourists may not want to move to another location given their localised attachment. Many participants stated that they would not mind restrictions if they did not impede on the areas that they enjoy and feel safe recreating in.

The participants who stayed in the Ningaloo region from three- four months and who have been visiting regularly were predominantly fishers and had established their favourite areas. It is difficult to say whether other activities, such as snorkelling, would be as affected by localisation due to factors such as tradition. However, because fishing is a popular activity in the Ningaloo region, it is important for managers to consider preventing negative responses from the repeat tourists due to zone changes.

The concept of place attachment is strongly represented in the literature. Hammet et al. (2006) suggested that people bond to places that are special or unique to them. This bonding process is suggested to form over time and grows with intensity and quality with repeated exposure (Bricker & Kerstetter, 2002; Hammet et al., 2006). This study is consistent with the literature, finding that long-term repeat tourists (those who stay longer and were regular visitors over several years) expressed more place attachment to their localised areas than the short-term repeat tourists (those who have visited three times or less over a shorter stay). The short-term repeat tourists were less predictable and more likely to explore different areas. It is important for managers to understand the different movement of these groups. Short-term repeat tourists would be more tolerant to changes because they are willing to explore different areas. Whereas long-term repeat tourists are more ‘entrenched’ in their particular localities. The difference in movement is presented in figure 5.1. The multiple arrows in the short-term repeat tourist diagram represents a travelling route and each lettered circle represents a separate area that the repeat tourist could travel to.
Long-term Repeat Tourists' Movement

Long-term repeat tourists

Localised Area and occasional trip to town

Less tolerant of change

Short-term Repeat Tourists' Movement

Short-term repeat tourists

A
B
C
D
E
F
G
H

More tolerant of change

Figure 5.1: Movement difference between long-term and short-term repeat tourists.
The reason for visitation was another theme that emerged when addressing the first research objective. It was found that the majority of participants visited the Ningaloo region for intrinsic benefits. Participants used words such as peace, calm, relaxing, stress-free and to 'get away' to describe their motivations for visiting the area. Some participants, particularly the campers expressed their desire to 'get back to basics' and experience the wilderness areas. The literature suggested that wilderness experiences create a sense of freedom and individuality. They offer an escape from the stress filled working existence of 'everyday life' (Barre, 2005; Curtin, 2005; Mehmetoglu, 2007a). However, with the increasing popularity of tourism in natural areas, it becomes difficult to manage growing visitor numbers without implementing restrictions.

Sanctuary zones or obtrusive restrictions can be seen as societal boundaries from which repeat tourists came to the Ningaloo region to escape. If the perceived sense of wilderness and escapism were impacted on by restrictions, repeat tourists' tolerance thresholds for change would be affected. The immediate environment that the recreational activity occurs in is just as important as the activity itself. Managers should be careful when implementing restrictions so as not to alter the perception of a wilderness area. Intrinsic motivations are difficult to manage because they are intangible. This intangibility is important for managers to understand so they can appropriately cater for the intrinsic benefits that repeat tourists seek.

5.2.2 Perceptions of Tourism

Research objective two sought to explore the perceptions toward changing social and natural environments in relation to recreational pursuits. The most predominant trend that has the ability to alter the social atmosphere and context of the Ningaloo region is the growth of tourism. The participants generally viewed the Ningaloo region as a growing tourism destination that is subject to seasonality issues. European visitors were seen as the majority of international tourists. Participants, however, did not comment on the domestic tourists, which according to Tourism WA (2007), made up 52% of all visitations over 2005 and 2006. Several participants perceived themselves as separate from the typical
tourist. They saw themselves as 'seasonal visitors' who belonged to their localised area
and considered the Ningaloo region as a 'home away from home'. This perception relates
back to previous discussions about place attachment and sense of ownership of the area.

Managers need to be aware of how repeat tourists perceive themselves, as it will affect
their tolerance threshold to change. Information and media targeted at the 'typical tourist'
may not reach repeat tourists if they do not view themselves as tourists. Long-term repeat
tourists may also be more tolerant of changes if they are included in the planning process.
The literature focused strongly on involving the community in management decisions and
the planning process. Community involvement can foster co-operation and understanding
of management issues and restrictions as well as empower locals (Mason, 2003; Newsome
et al., 2005; Page & Dowling, 2002). If repeat tourists see themselves as a seasonal
expansion to the local community rather than as a tourist, it is important to also include
them in the consultation stages. If repeat tourists feel left out, resentment towards
management could grow creating resistance to changes and affecting tolerance thresholds.
For example, some participants expressed their willingness to be involved in the
management process and the importance of discussions about changes to sanctuary zones
between management agencies and repeat tourists. This interaction also has the benefit of
developing positive relationships between stakeholders, which would affect future
tolerance thresholds to change.

Caravan and camping facilities were the main accommodation types in the Ningaloo
region. However, participants noticed a shift towards more expensive accommodation
such as chalets. This change was a concern for several participants as it belies the
perceived simplistic atmosphere of the area. The majority of participants disliked the idea
of increased tourism development and expressed concerns for the possible impact on their
environment and lifestyle. Commercialisation was viewed negatively because it would
impact on a repeat tourist's sense of place. A wilderness area denotes freedom, space and
calm. These characteristics are at odds with a commercialised tourism precinct and thus
repeat tourists' tolerance thresholds to changes in the social environment will be affected.
If the destination loses its wilderness appeal, the repeat tourists’ who are seeking intrinsic benefits will not continue to visit the region.

5.2.3 Environmental Awareness

As noted in section 5.2.2, the second research objective explored the perceptions toward changing natural and social environments in relation to recreational pursuits. In examining the changing natural environment, repeat tourists’ environmental awareness was explored. It was generally viewed that the Ningaloo region was still relatively ‘pristine’ with minimal, noticeable environmental issues. However, participants were concerned about impacts of increasing visitor numbers. The decrease in fishing stock was noticed by all fishing participants, but many were wary of purely blaming overfishing and suggested other reasons such as the weather, or that fish abundance is cyclical, or is undergoing a natural decrease. It has been identified in the literature that environmental awareness among the general population has increased (Holden, 2000). This trend is apparent in all participants, as they expressed awareness and value of the environment. Their awareness was also evident when discussing issues such as litter and staying on allocated tracks.

The availability of nature-based tourism in the Ningaloo region could be attracting repeat tourists who are interested in the natural environment and thus contribute to their environmental awareness. Page and Dowling (2002), Douglas et al. (2001) and Newsome et al. (2001) acknowledge the existence of two worldviews; the earth-centre (ecocentric) worldview and the human-centred (anthropocentric) worldview. Participants’ attitudes appear to coincide more closely to the ecocentric worldview (although at varying levels and not including all its elements).

Participants were concerned with conservation and protection, and understood the importance of sustainability. They were aware of the impact that they had on the environment and co-existed within their surroundings as opposed to taking control of the environment, which is prevalent in an anthropocentric worldview. This ecocentric view
denotes a sense of intrinsic value and the importance of sharing resources with the natural world.

Concern for the environment can assist managers when implementing restrictions in the Ningaloo region or other natural areas. Participants valued the sense of freedom and individuality that a wilderness destination could provide. Repeat tourists are more likely to tolerate restrictions that attempt to preserve the natural environment in which activities take place, as well as control negative impacts, because it is protecting their personal identity. Due to past conflicts and the distrust of management agencies, participants highlighted the importance of being informed about environmental reasons and scientific evidence from experts in accepting management changes. Participants suggested they would be more tolerant of changes if they knew they were necessary. This need for knowledge demonstrates the importance of education and information.

5.2.4 Education and Interpretive Information

The third research objective was to identify perceptions, attitudes and behaviours regarding existing management techniques on recreational pursuits. The provision of educational and interpretative information emerged as important management techniques within the Ningaloo region. The educational facilities were generally accepted as being adequate in the Ningaloo region. They were also seen as vitally important for all repeat tourists, as they communicated general knowledge and directions and provided updated information about sanctuary zones. A range of communicative approaches was found to be important as some methods appealed to some groups more than others. This trend was most apparent when looking at the short-term and long-term repeat tourists. Short-term repeat tourists relied heavily on good signage, tourist centres and brochures, whereas long-term repeat tourists already knew basic information and required guides, booklets and personal communication regarding sanctuary zone changes and management information. The literature highlighted the importance of education and interpretation within the tourism context in providing relevant information and communicating
regulations and policies (Hwang et al., 2005; Mason, 2003; Newsome et al., 2001). The participants of this study shared the importance and value of interpretation.

Interpretation through a range of media (photos, text, objects) was viewed as an effective way to communicate the importance of environmental issues and create environmental awareness. It also assisted in giving a place meaning and intrinsic value so that repeat tourists would be less likely to behave negatively towards the environment. By presenting ecocentric ideals and beliefs, repeat tourist behaviour may also be positively altered in the long-term (Fyall et al., 2003; Hwang et al., 2005). Many participants commented on the usefulness of interpretive information to help understand the issues faced by the Ningaloo region and the restrictions that were in place. However, the provision of information can be improved as many participants expressed confusion and frustration over the lack of specific details regarding certain restrictions and regulations. Educational facilities and services are an effective method to communicate reasons for certain restrictions and hence affect the tolerance thresholds of repeat tourists. Education and interpretation will be essential for the Ningaloo region in the future as it grows in popularity. It is a crucial management tool in understanding and influencing repeat tourist tolerance thresholds and managers need to continually monitor, improve and update it, to cater for all repeat tourists and for all levels of environmental awareness.

5.2.5 Tolerance of Sanctuary Zones

As noted above, the third research objective explored perceptions, attitudes and behaviours regarding existing management techniques on recreational pursuits. Multiple-use zoning, especially sanctuary zones was identified as a management technique used in the Ningaloo region. The literature supported the role that multiple-use zoning schemes have in managing a marine protected area to support conservational goals as well as providing recreational opportunities (Lunn & Dearden, 2006; Lynch, 2006; Newsome et al., 2001). They have been viewed as an appropriate way to balance management objectives within a natural area. Sanctuary zones are one type of zone that is used within the zoning scheme and involve the restriction of any extractive activities. All of the
participants expressed an awareness of the sanctuary zones in the Ningaloo region. This awareness varied according to the type of activity participants enjoyed and whether sanctuary zones impacted on these activities. For example, participants who fished were more aware of sanctuary zones as opposed to those who snorkelled. Participants also were more aware of the sanctuaries within their localised areas with some having limited knowledge outside their localised areas. Managers must be aware that just because repeat tourists have been visiting an area over a long period of time, it is still important to continue enforcing the locations of sanctuary zones.

All the participants acknowledge the importance that sanctuary zones have in protecting the environment, with the majority stating that they are necessary to provide breeding grounds for fish. Many participants, however, do not want the sanctuary zones to increase and suggest alternative measures such as catch and release points and lower bag limits. Sanctuary zones are perceived as a societal boundary which conflicts with the desire for freedom and escape from everyday life. The challenge for managers is balancing conservation with repeat tourist satisfaction. Northcote and MacBeth (2007) suggested that sanctuary zones were useful for sustainability issues but potential responses of users (i.e. repeat tourists) had to be investigated so social impacts can be addressed.

The tolerance of repeat tourists to sanctuary zone changes was a key issue explored in this study and it relates to research objectives four and five. The fourth research objective aimed to ascertain responses to various scenarios postulating changes to natural and social environments affecting recreational pursuits. The fifth research objective sought to develop an understanding of the factors that account for thresholds of tolerance for change in terms of intent to re-visit and any variability that exists from one person to another. By presenting different scenarios of sanctuary zone changes, this study was able to gauge repeat tourists’ tolerance thresholds to change. The type of recreational activity they participated in influenced participants’ tolerance of increasing sanctuary zones. Recreational fishers had a limited tolerance threshold for change whereas other participants saw it to their advantage to have a large increase in sanctuary zones. No participants wanted a decrease in sanctuary zones.
This finding suggests that participants have become accustomed to the current sanctuary zones and have adapted their localised area in accordance with them. It is advisable that managers approach changes to zones carefully and implement small incremental changes rather than all at once. This method allows repeat tourists to adapt to changes slowly and more easily, increasing their tolerance to change.

Sanctuary zone implementation and tolerance of change to zones greatly depended on where the zone would be placed. Participants have high levels of localisation, thus any sanctuary zone that restricted the use of their localised area would have negative consequences. As discussed previously, participants would have a higher tolerance threshold for change if they were still able to recreate in areas that they felt safe and comfortable. By understanding these influences and tolerance thresholds, managers can predict possible responses of repeat tourists and thus, make better management decisions.

5.2.6 Revised Conceptual Framework

The revised conceptual framework was developed as a more focused view of the relationship between managers and repeat tourists in understanding the pressures that influence tolerance thresholds (figure 5.2). It visually displays the influencing pressures that affect repeat tourists’ tolerance thresholds, which were discussed in the previous sections. These pressures include: reasons for visiting, education and information, type of activities, intrinsic benefits, place attachment and localisation, proximity and access, perception of self as a tourist, sense of place, tourism development, perception of management, environmental awareness and level of current restrictions. When change occurs in a repeat tourist’s recreation due to sanctuary zones or restrictions, the repeat tourist will respond either negatively, positive or neutrally.
Managers' understanding of influencing pressures on repeat tourists

Figure 5.2: Revised conceptual framework
By studying appropriate literature and conducting research, managers are able to form an understanding of the different influencing pressures that will affect repeat tourists' tolerance thresholds. By understanding these influences, managers can predict the potential response of tourists and make informed and educated changes to sanctuary zones. As shown in figure 5.2, managers will be able to balance conservational goals and achieve tourist satisfaction by providing recreational opportunities.

5.3 Recommendations for Protected Area Managers

Managers have several important elements to consider when regarding repeat tourists and their tolerance thresholds for change. Localisation was a major influencing factor of repeat tourists, particularly for long-term repeat tourists. Managers need to view the Ningaloo region at a micro level, assessing different localised areas as opposed to viewing it as one homogeneous region. Community involvement in decision-making has always been important, however managers should consider including repeat tourists during the consultation phase of planning because their ongoing return to the Ningaloo region is important for the local economy. It is also important not to marginalise repeat tourists from the consultation process if sanctuary zones are to be managed properly.

The intrinsic motivations that lead repeat tourists to travel to the Ningaloo region must be considered and catered for when providing recreational opportunities. Intrinsic benefits are essential to the recreational activities and without them repeat tourists may be less inclined to visit the Ningaloo region. The management of intangible qualities of the Ningaloo region such as the wilderness experience should be continued and reinforced by using passive or unobtrusive restrictions and management techniques.

Positive relationships need to be fostered between management agencies, repeat tourists and other stakeholders. Without co-operation and open communication between management, it is unlikely that repeat tourists will trust new management techniques. This distrust will affect the efficiency of future sanctuary zones. Co-operation is also important.
when planning recreational areas. Accommodation, such as camping sites, need to be planned in conjunction with recreational areas so that repeat tourists do not have to travel large distances. Lastly, qualitative and quantitative surveys should be used regularly to monitor any change in perceptions and attitudes that may assist managers to appropriately implement sanctuary zones and restrictions.

5.4 Limitations

There are several limitations of this research due to its specific qualitative nature. The research focused only on one stakeholder group, the repeat tourists. This focus limited the results because only the perceptions of repeat tourists could be explored. Other stakeholder groups were not included in the research. However, the qualitative nature of the study ensures that results cannot be generalised for all repeat tourists. Similarly, as the study was set in the Ningaloo region of Western Australia, it cannot be generalised directly to other intrastate, interstate or international areas.

The study was limited in time and spatial dimensions as the data collection was performed over one week and in one season. It is important to note that different time periods and seasons may produce differing results due to the seasonality of tourism. The distance and sparseness of the region also presented difficulties. Repeat tourists who camped in the national park may not have been adequately represented due to the difficulty in finding and interviewing them. Also, no one in the age group, 30-45, was interviewed. Finally, the study was time-bound and cross-sectional, and cannot measure change over time. All studies have limitations, however an understanding and insight of the perceptions and attitudes of repeat tourists were gained by focusing on a key visitor group at a peak visitation period.
5.5 Recommendations for Further Research

The study has discussed the issues that affect repeat tourists’ tolerance thresholds for changes to sanctuary zones. Further research should explore the tolerance thresholds of local host community members, as they are a prominent stakeholder and are impacted on by tourism growth. Repeat tourists do not generally stay at a destination for the whole year, but local individuals from the host community in the Ningaloo region would possibly have a different tolerance threshold because they stay all year and experience more changes throughout the holiday season.

There is little research on involving repeat tourists in the processes of planning and decision-making. This study showed that, in particular, long-term repeat tourists viewed themselves as a part of the community for the duration of their stay. It would be beneficial for managers to understand the role repeat tourists play in the community and their attitudes towards being included. Repeat tourists could provide a valuable resource in providing feedback and ideas. This study acknowledged that tolerance thresholds differed in regards to activity type. Follow-up qualitative and quantitative studies could examine other recreational activities and other forms of restrictions.

Finally, localisation was found to have a profound effect on a repeat tourist’s tolerance threshold. There is scope for further research into the localisation concept and its applicability in other situations. The Ningaloo region is a large area, which may have contributed to the emergence of localisation. Further research could examine the affects of localisation is smaller protected areas as management techniques may need to vary accordingly.

This study has established that localisation and place attachment of repeat tourists are essential factors to consider when planning and implementing management restrictions such as sanctuary zones. A repeat tourist’s tolerance threshold will be affected by their level and intensity of localisation, and their perceived role in the local community. The manner in which tourists can make a destination a ‘home’, and regard changes such as
sanctuary zone restrictions as intrusions into 'their' territory and way of life, is something that planners and managers need to keep in mind in the course of managing protected areas such as Ningaloo.
References


Little, L. R., Smith, A. D. M., McDonald, A. D., Punt, A. E., Mapstone, B. D., Pantus, F., et al. (2005). Effects of size and fragmentation of marine reserves and fisher infringement on the catch and biomass of coral trout, Plectropomus leopardus, on


Appendices

Appendix A: Map of Ningaloo Marine Park

(CALM, 2005)
Appendix B: Semi-Structured Interview Framework

(For my personal use only)

Pre-interview Checklist

☐ Quiet, comfortable location
☐ Public, safe area
☐ Check recorder is working
☐ Re-introduce myself
☐ Collect permission form with signature
☐ Remind participants of confidentiality and right to withdraw at any time
☐ Eliminate distractions (including mobile phone turned off)

Introduction

I would firstly like to thank you for participating in this study. This interview is to gain a personalised view from tourists about the sanctuary zones at Ningaloo so I greatly appreciate your time in giving your opinion on the subject matter.

I would also like to point out that this is an individual study for my honours thesis and I’m not associated with any government agencies or organisations that have an interest in the Ningaloo region. The aim of the study is to investigate the tolerance thresholds that repeat tourist have for restrictions on recreational activities within Ningaloo.
Background

Firstly we’ll just establish some background. How many times have you visited Ningaloo? *Explore: How often on average each year? When was the first time you visited? When was the last time?*

*For your current visit to Ningaloo?*
*Explore: What areas within Ningaloo do you like to visit? (Use map for guidance if necessary). Favourite areas? Where do you normally stay? How long do you intend to stay altogether since arrival?*

*Why do you visit Ningaloo?*
*Explore: Environment, recreational activities, tradition, place attachment etc. How do you feel about the area as a whole? What do you think its environmental worth is? What do you think its economic worth is? Have you visited any other regions similar to Ningaloo?*

*Where is your place of usual residence? (Some may be caravanners on a long-term round-trip of Australia).*

Section 1: Recreational Activities

I’d like to explore what recreational activities you participate in.

*What is the primary recreational activity that you come here for?*

- [ ] Fishing
- [ ] Hiking
- [ ] Scuba
- [ ] Water Sports
- [ ] Snorkelling
- [ ] Swimming
- [ ] Camping
- [ ] Other………………
What other activities do you participate in?

*Explore: Why these activities? Why Ningaloo for these activities? Have you always participated in these activities? If not, what did you do previously and why did you change? Is there an activity you’d like to do but can’t? For what reason? How important are these activities to your visit to Ningaloo?*

Do you think there are adequate services for these activities?

*Explore: (facilities, restrictions, education etc.) If not, why? Do you think restrictions in place for your activity are appropriate? Why? More or less restrictions? Why?*

Section 2: Management Strategies

Following on from restrictions, what are your thoughts about the current management strategies in relation to recreation pursuits at Ningaloo?

Prompts: Educational facilities/signage, sanctuary zones (no-take), restrictions, monitoring, research, public participation etc.

*Explore: Are you aware of any management strategies? Which ones? Do you think any of them are appropriate or inappropriate? Do you think Ningaloo needs to be managed? Why? How much management do you think there should be?*

Do you comply with restrictions?

*Explore: If so why? If not why? How has your behaviour changed because of not complying? I.e. sitting on the boundary edge of a sanctuary, sneaking around at night? Etc.*
Section 3: Changing natural and social environments

Moving on from management strategies, I wanted to discuss changing natural and social environments at Ningaloo and how it might have affected your recreational pursuits.

What is your understanding about current environmental issues in general (i.e. not necessarily concerning Ningaloo specifically)?

Prompt: Decline in fish abundance and biomass (i.e. size), global warming, pollution, erosion etc.

Explore: Do you think the environmental issues have relevance in Ningaloo? Why? Do you think these issues will affect your recreational activities? Why? Have you already experienced any change in relation to the environment for good or bad? (I.e. sanctuary zone increase).

What are your thoughts about tourism and social change at Ningaloo?

Prompt: Increasing visitor numbers, more tourist operators, more media coverage, seasonality etc.

Explore: Have you noticed any changes in: How people act (residents and visitors)? Type of visitors? Number of visitors? What do you think about this change? Has it affected your recreational pursuits in any way? (I.e. changed, moved to different area, avoid certain spots etc).

Section 4: Scenarios

I would now like to take this opportunity to show you some hypothetical scenarios of changes to sanctuary zone boundaries and discuss your opinion of the scenarios.
Firstly how much of Ningaloo do you think is currently zoned as sanctuary? (I.e. no-take areas).

Explore: What percentage would you say? Has this view changed since you were last at Ningaloo? Why? Do the current sanctuary zones affect your recreational decisions? Why? Do you think sanctuary zones are necessary? What are your thoughts about them?

(Same foundation questions for all scenarios)

Would you still come to Ningaloo if % of the park were sanctuary zone?

If yes – Why? If no – Why?

Explore: At what level of sanctuary zones would you decide not to come back to Ningaloo? Would you ever stop coming?

Scenario Key
- Scenario 1: 60% sanctuary zones
- Scenario 2: 100% sanctuary zones
- Current Situation (post-2004) 34% sanctuary zone
- Past situation (pre-2004) ~ 10% sanctuary zone

Would it depend on what other activities were still available? [Show then the chart again, but now applied to other activities such as camping, swimming and snorkelling].

Would it depend on what other destinations are available? (Where else might you go)?

Would it depend on what other family members or friends thought?

Would it depend on where the sanctuary zones were placed?

Explore: If the zone were made in your favourite recreational area, what would you do? (I.e. go somewhere else, use the same spot but for a different activity, leave Ningaloo?)

What would be your response? (Refer to response chart).
How much of Ningaloo do you think should be sanctuary zoned?

Explore: Minimum threshold? What are your thoughts about 0% sanctuary zones? Is there a need for some restriction (why/why not)? Would your opinion change if you thought the zones were necessary based on strong environmental evidence?

Conclusion

If the interviewee brings up, or if there is time to discuss further:

- Tourism impact
- Tolerance of human impact – rubbish, damage etc.
- Attachment to the area

Great, I believe we have covered everything and I greatly appreciate your willingness to assist in my study. Before we finish is there anything you would like to add to the discussion or build on from previous topics? Anything you thought was important that I did not bring up? Or anything you would like to know about the study?

Once again, thank you very much for your time.

Individual Information (personal use only)

Gender:

☐ Male
☐ Female

Location of Interview

Age:

☐ 18-29  ☐ 30-45
☐ 46-59  ☐ 60+

Type of place of accommodation during stay
Appendix C: Location of Caravan Parks

Key
The locations of the two caravan parks in which participants were approached. One was in Exmouth; the other was below the lighthouse on the peninsula.
Appendix D: Response Chart

Response Chart

- **Please mark:**
  1. The point that you believe represents the current situation
  2. The point that would provide you with maximum satisfaction
  3. The point at which you would choose not to return to this destination
Appendix E: Scenarios Models

Past Situation (pre-2004) ~ 10% Sanctuary Zones
Current Situation (post-2004) - 34% Sanctuary Zones
Scenario 2 - 100% Sanctuary Zones

Legend

- Nungaloo Marine Park (WA Coastal Waters) Zoning
  - Special Purpose (Benthic Protection) Zone
  - Nungaloo Marine Park (Commonwealth Waters)

- Muriro Island Marine Management Area Zoning
  - Conservation Area
  - Unclassified Area

Scale in Kilometres

This map is not to scale for completed purposes. Position accuracy should be assessed in conjunction with GPS or other high accuracy methods.