



Assessing the sustainability of whale shark tourism: a global perspective

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Whale Shark Tourism Industry

- Inception in 1993 at Ningaloo
- Explosion in the last 15 years
- Offered in over 15 countries
- Worth approximately US\$66 million (2004)





Sustainability

- Listed as 'vulnerable' on IUCN's Red List of Threatened Species
- Declines in fisheries catches and aggregation sites
- Duffus & Dearden (1990)
 - Management of wildlife tourism requires a combination of biological and social science
- Davis & Tisdell (1995)
 - recreational values reduce demand for an activity before biological impacts severe enough



Previous Research

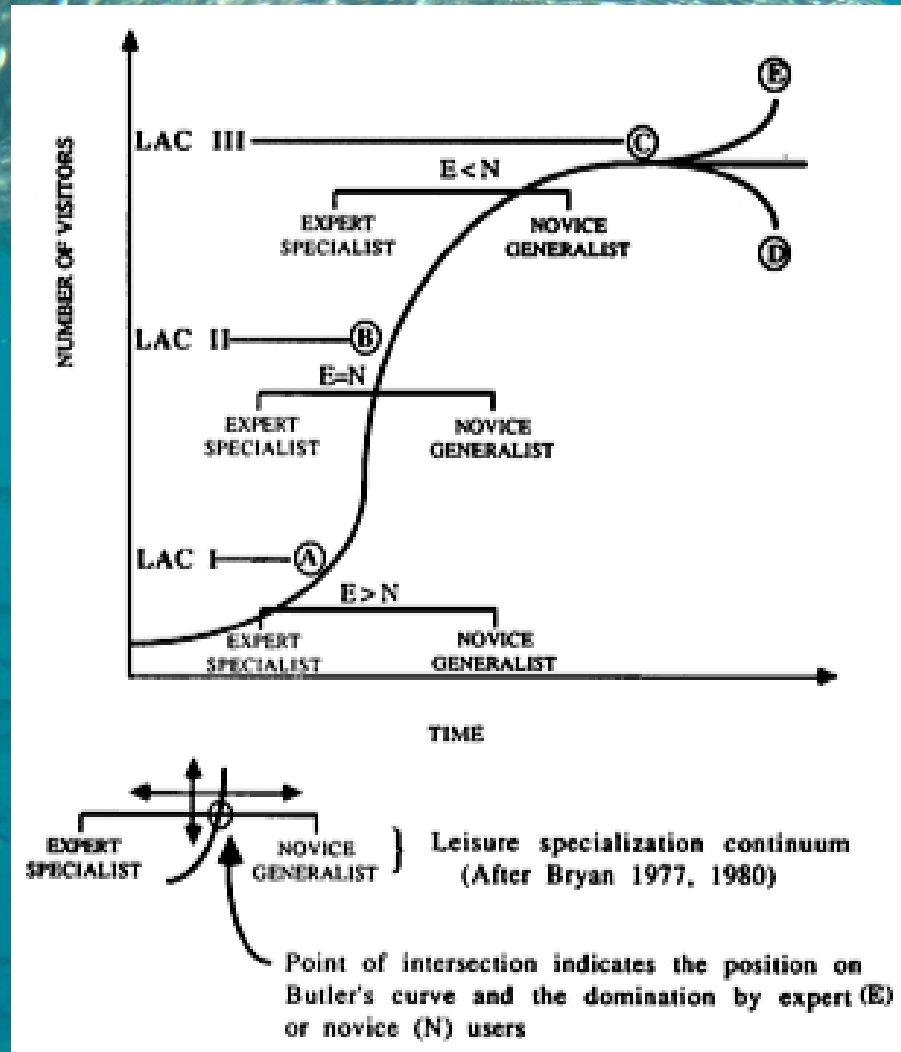
1. Biology and Ecology
 - life history, migration, population
2. Interaction Studies
 - negative impacts on whale sharks
 - tourist/operator compliance to guidelines
3. Tourist Surveys
 - demographics, motivations, satisfaction



Tourist motivation and specialization

- understanding tourist motivations may help decrease negative impacts on whale sharks
- tourists differ in motivations, expectations and satisfaction
- these differences linked to tourist specialization
- specialization can provide insight in the sustainability of the activity

Wildlife Tourism Model



Duffus and Dearden (1990)

Global Overview

	# tour operators	length of operations	visitation	economic returns (US\$)	seasonality
SE Asia					
Donsol, Philippines	60	1998	7,100	623,000	January-June
Phuket, Thailand	65	1992	10,000	3-6 million	November-April
MA Reef					
Gladden Spit, Belize	>30	1997	1,299	3.7 million	March-June
Utila, Honduras	11	1998	N/A	N/A	February-June
Holbox, Mexico	140	2002	16,000	1 million	May-September
Australia					
Ningaloo Reef	14	1993	5,000-7,000	10-24 million	March-July

Adapted from Dearden et al. (2008)

A large whale shark is swimming in clear blue water. The shark is the central focus, moving from left to right. Its body is covered in a pattern of dark spots and stripes. Below the shark, a large school of smaller, silvery fish is swimming in the same direction. The water is a vibrant blue, and the overall scene is peaceful and natural.

Research Project

Purpose

to understand the sustainability of the global whale shark tourism industry by assessing tourist satisfaction and specialization



Research Objectives

1. to determine the demographic characteristics of whale shark tour participants
2. to ascertain tourist motivations of, and satisfaction with whale shark tours
3. to determine tourist specialization
4. to assess the development of the site according to wildlife tourism model



Methodology

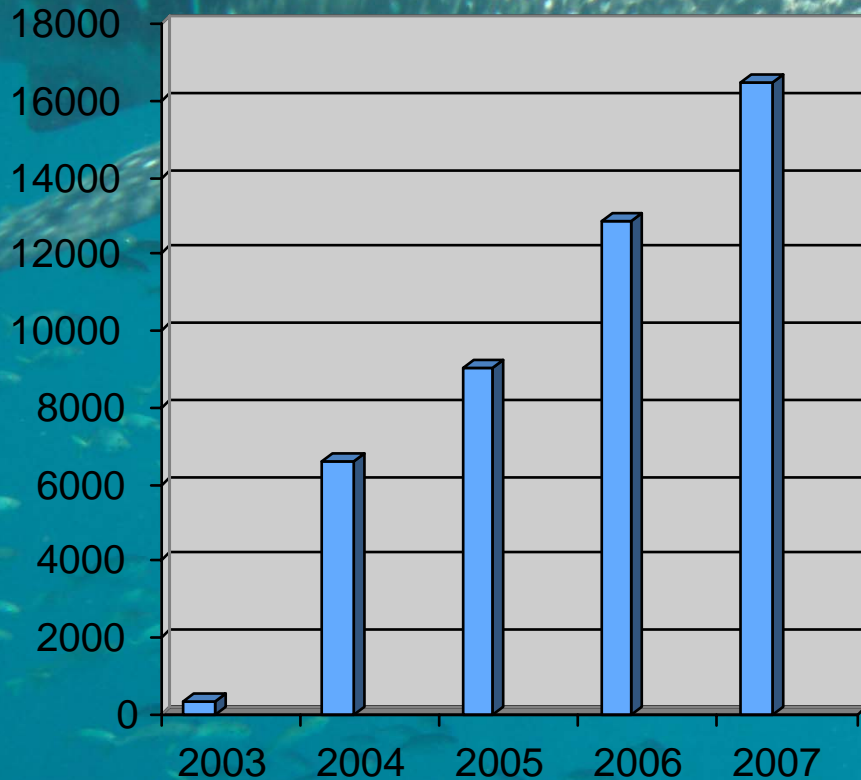
- survey-based research
- implemented in Mexico, Mozambique and the Philippines
- use of open- and close-ended questions to determine:
 - motivations and satisfaction
 - specialization
 - demographics



Specialization Index

- Potential characteristics include:
 - SCUBA & snorkel experience
 - Knowledge of sharks
 - Experience in shark watching
 - Use of camera
 - Importance of WS as tourism attraction
 - Importance of tour services

Holbox, Mexico



- started in 2002

- 50 fold \uparrow in visitation
over 5 years

- close proximity to
Cancun and Riviera
Maya

Figure 1. Visitation for whale shark tourism on Holbox, Quintana Roo, Mexico from 2003 to 2007.



Expected Outcomes

- A better understanding of the current status of the tourism industry
- Site-specific management requirements based on tourist type and satisfaction with current practices
ex. increased infrastructure
- Framework to evaluate the state of local tourism operations
- Ultimate goal is to make recommendations about developing a sustainable whale shark watching industry that can be applied in different geographical settings around the world



Questions?

