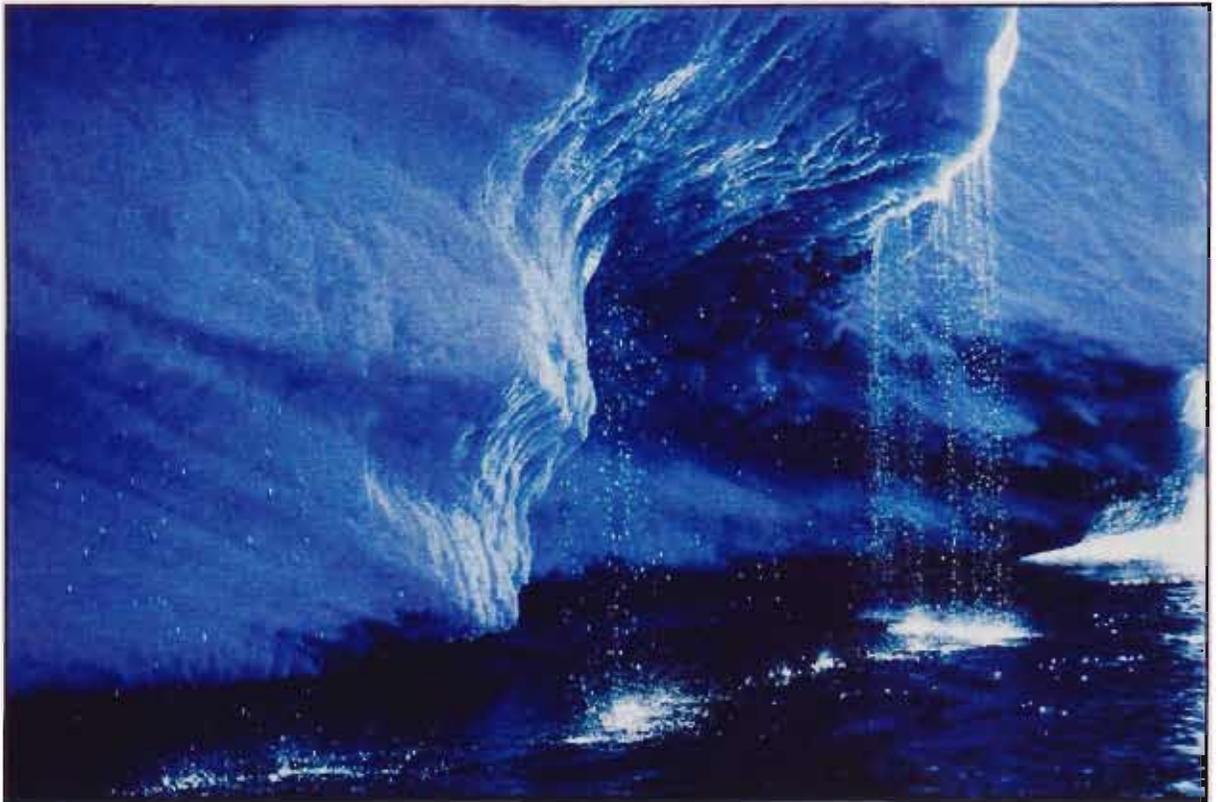

Managing Antarctic tourism



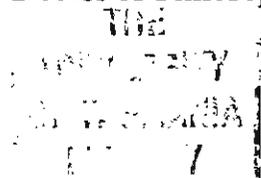
by

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Phillip Tracey

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Abstract

Antarctic tourism began before the Antarctic Treaty was signed, and is now a substantial industry exhibiting rapid growth. Concern has been expressed about the effects of tourism on scientific, environmental and other important Antarctic values. The *Protocol on Environmental Protection to the Antarctic Treaty* forms the main mechanism for managing Antarctic tourism within the Antarctic Treaty System (ATS). This thesis argues that despite the framework provided by the Protocol, the tourism management system is inadequate, and that the management systems governing similar forms of tourism in other natural areas provide a superior model.

The research included a comprehensive analysis of the industry and its development. Physical, environmental, operational and geographical aspects of Antarctic tourism were analysed. An examination of site use and the spatial development of tourism shows that concern about high use levels is justified for a small proportion of sites, and identifies trends in the geographic spread of tourism activity. The impacts of tourism on Antarctic values were reviewed, with the main concerns identified as low-risk, high-magnitude impacts, and cumulative impacts. Social, economic, and industrial aspects of tourism were analysed. The economic analysis shows the market economic value of the industry to be approximately fifty five million US dollars for the 1996/97 season. A forecast of the development of Antarctic tourism predicts continued growth, increasing diversification, and development of substantial new markets.

The management of Antarctic tourism was examined in detail. The system includes tourism management within the ATS, measures imposed from outside the ATS, and industry self regulation. An analysis of the legislative and administrative approaches of different nations shows that there is considerable variation in the way that tourism management provisions of the Protocol are interpreted and applied.

Detailed case studies were conducted on the management of tourism at southern oceanic islands and northern polar locations. The case studies show that cruise tourism is managed very differently in these areas than in the Antarctic, with management planning regarded as the most appropriate model for management. Management measures specific to cruise tourism in high latitude locations were identified.

It is argued that there are significant shortcomings in the tourism management system, based on analysis of the existing system, the characteristics of the industry and the Antarctic environment, management planning theory, and the standards set by management of similar activities in the case study areas.

An alternative model for the management of Antarctic tourism using a management planning approach is proposed, taking into account the case studies, industry analysis and forecast, and the structure and implementation of the present system. The thesis argues that this alternative is suitable for application within the framework of the ATS, and that it would overcome the shortcomings identified in the existing management system.

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Acronyms and abbreviations

AAT	Australian Antarctic Territory
AEPS	Arctic Environmental Protection Strategy
AIRSS	Arctic Ice Regime Shipping Standards (Canada)
AMAP	Arctic Monitoring and Assessment Programme
ANARE	Australian National Antarctic Research Expeditions
ANI	Adventure Network International
ANLICA	<i>Alaskan National Interest Lands Conservation Act</i>
ASAC	Antarctic Science Advisory Committee (Australia)
ASMA	Antarctic Specially Managed Area
ASOC	Antarctic and Southern Ocean Coalition
ASP	Antarctic Specially Protected Area
ASPPR	Arctic Shipping Pollution Prevention Regulations
ASTI	Area of Special Tourist Interest
ATCM	Antarctic Treaty Consultative Meeting
ATCP	Antarctic Treaty Consultative Party
ATP	Antarctic Treaty Party
ATS	Antarctic Treaty System
BAS	British Antarctic Survey
CC	Carrying Capacity
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources (also Commission for the Conservation of Antarctic Marine Living Resources)
CCGN	Northern Region Canadian Coast Guard
CEE	Comprehensive Environmental Evaluation
CEMP	CCAMLR Ecosystem Monitoring Program
CEP	Committee for Environmental Protection (of the ATS)
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CLIA	Cruise Line International Association
CMS	Conservation Management Strategy
COMNAP	Council of Managers of National Antarctic Programs
CRAMRA	Convention for the Regulation of Antarctic Mineral Resource Activities
DPWH	Department of Parks, Wildlife and Heritage (Tasmania)
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency, US
FACH	Fuerza Aérea de Chile
GNWT	Government of the Northwest Territories
HRSCERA	House of Representatives Standing Committee on Environment, Recreation and the Arts (Australia)
IAATO	International Association of Antarctica Tour Operators
IACS	International Association of Classification Societies
ICAIR	International Centre for Antarctic Information and Research
IEE	Initial Environmental Evaluation
IMO	International Maritime Organisation
IP	Information Paper (of the ATCM)
IRB	Inflatable Rubber Boat
IUCN	International Union for the Conservation of Nature and Natural Resources (World Conservation Union)
IWC	International Whaling Commission
LAC	Limits of Acceptable Change (management system)

MARPOL 73/78	The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978
MBO	Management By Objectives
MPA	Multiple-use Planning Area
NERC	National Environment Research Council (UK)
NGO	Non-governmental Organisation
NMFS	National Marine Fisheries Service (US)
NORDREG	Arctic Traffic System (Canadian Coast Guard)
NPI	Norwegian Polar Institute
NPS	National Park Service (US)
NSF	National Science Foundation (US)
NWT	Northwest Territories
PAC	Project Antarctic Conservation
PATA	Pacific Asia Travel Association
PEE	Preliminary Environmental Evaluation
PERM	Preliminary Environmental Review Memorandum
Polar Code	International Code of Safety for Ships in Polar Waters
Protocol	Protocol on Environmental Protection to the Antarctic Treaty
Rec.	Recommendation (of the ATCM)
ROS	Recreation Opportunity Spectrum
SCALOP	Standing Committee on Antarctic Logistics and Operations (of COMNAP)
SCAR	Scientific Committee on Antarctic Research
SCUBA	Self-contained Underwater Breathing Apparatus
SGSSI	South Georgia and the South Sandwich Islands
SOLAS	International Convention for the Safety of Life at Sea, 1974
SOPEP	Shipboard Oil Pollution Emergency Plan
SPA	Specially Protected Area
SPRI	Scott Polar Research Institute (UK)
SRA	Specially Reserved Area
SSSI	Site of Special Scientific Interest
TANGO	Tourism and Non-Governmental Operations (working group of COMNAP)
TAP	The Antarctica Project
Treaty	Antarctic Treaty of 1959
UKAHT	UK Antarctic Heritage Trust
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
USFWS	US Fish and Wildlife Service
VAMP	Visitor Activity Management Process
VERP	Visitor Experience and Resource Protection Framework
VIM	Visitor Impact Management process
VMP	Vessel Management Plan
WCMC	World Conservation Monitoring Centre
WP	Working Paper (of the ATCM)
WTO	World Tourism Organisation
WWF	World Wide Fund for Nature, also known as World Wildlife Fund