Monitoring Visitors to Natural Areas: Towards A Standardised Approach

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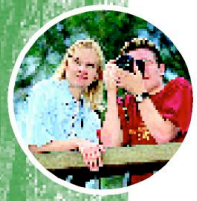



Why am I here?

- Setting the scene
- Recently been involved in a three year project to develop a standardised approach to monitoring visitors to natural areas.
- End product of the project: Manual providing methodological and operational guidelines for visitor monitoring.

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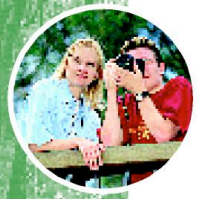



Project Team

Collaborative project funded by

- Australian Research Council
- Queensland Parks and Wildlife Service
- Sport and Recreation Queensland
- New South Wales National Parks and Wildlife Service

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Natural area focus

A natural area rather than protected are focus for the Manual was adopted because one of the funding agencies managed a variety of land tenures.

As such, the guidelines have been designed to be tenure-independent and can thus be applied in national parks, state forests, local government parks, and many other types of land tenure.

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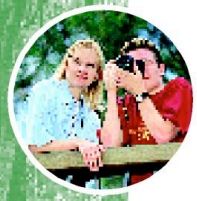



Background to project

Natural areas are faced with increased pressures from recreational demand.

The need to incorporate visitor data into natural area management is now recognised as an imperative.

Why?

- helpful to managers faced with planning and management decisions regarding land use

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- allows managers to better target specific visitor groups and therefore be in a better position to match experiences with expectations

- allows managers to justify the contribution these areas make to society – important political tool

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Despite this recognition, the management of natural areas suffers from a lack of reliable visitor data.

For many areas, visitor numbers are the only data available, and even these are notoriously unreliable.

Much of the work conducted to date has been ad hoc and thus lacks an overarching framework for integrating this information into management decisions.

Moreover, data that have been collected are typically unrelated making comparisons difficult.

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The need to improve visitor data collection was highlighted 7 years ago in the ANZECC report.

The ANZECC report found that:

- no system for the collection of visitor data was in place nationally,
- no systemised methodology is in place, and
- no state or territory was able to produce state-level data other than visitor numbers (ANZECC 1996).

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Since the ANZECC report, several state natural resource and land management agencies have begun to develop visitor monitoring systems (e.g. CALM, NTNPWC, SAPWS).

The rising importance of visitor monitoring is also reflected in several collaborative projects between universities and natural resource and land management agencies (e.g. NSW NPWS and UTS, GBRMPA and JCU, WTMA and JCU).

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Project aims

1. To develop, test and validate a standardised methodology for collecting information about the different types of visitors.

2. To demonstrate how a wider understanding of visitor attributes can contribute to more sophisticated and effective planning and management of these areas.

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Outcomes

- a tested, validated and standardised methodology for the collection and analysis of data
- a manual providing operational and methodological guidelines
- a description of the types of visitors to natural areas

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Outcomes (cont.)

- a database constructed from aggregated surveys to compare individual areas to regional, state or national baselines

- a demonstration of how improved knowledge of visitors can contribute to natural area management without compromising conservation objectives and values

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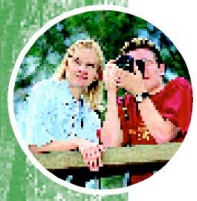



Towards a standard approach

Stages of development:

- Review of literature (counts and surveys)
- Review of national and international agencies
- Discussions with world leaders:
  - Prof. Paul Eagles (University of Waterloo)
  - Dr Gary Machlis (US NPS)
  - Prof. George Stankey (USFD)
  - Mr Bill Aris (Parks Canada)

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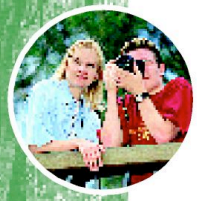



Towards a standard approach

- Series of statewide workshops (New South Wales and Queensland) to identify information needs.
  - Visitor characteristics
  - Travel characteristics
  - Nature of the visit
  - Interpretation and education
  - Visitor satisfaction
  - Natural area management

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Towards a standard approach

- Design of survey questions
- Pilot surveys (two national parks in New South Wales, and three national parks in Queensland)
- Development of a 'Visitor Monitoring System' specifying standard methodological and operational guidelines for visitor monitoring.

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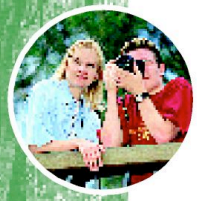



Visitor Monitoring System

- Provides a methodological blueprint for monitoring visitor use and behaviour across a diversity of natural areas (i.e. tenure independent).
- The system recognises that no single collection method is universally applicable
- Rather, the approach taken has been to specify guidelines for a variety of data collection methods and the outputs to be produced.

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Visitor Monitoring System

- Land management agencies can then design data collection programs that best meet individual needs and circumstances, while retaining data comparability.

- Such flexibility is necessary to accommodate the wide diversity of natural area resources, visitation patterns, staffing levels, and managerial styles across the different land tenures.

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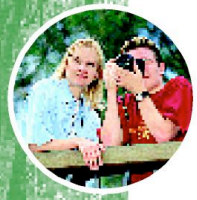



Visitor Monitoring System

The Visitor Monitoring System has two components:

1. Guidelines for estimating visitor use
2. Guidelines for conducting visitor surveys

Of the two components, the visitor survey section is the most comprehensive.

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Estimating Visitor Use

To estimate visitor use, a monitoring process has been designed which incorporates three phases:

1. Preliminary Design Considerations (rationale and objectives, familiarity with area, sampling plan, review methods)
2. Program Development (what, when, where, who)
3. Data Analysis and Reporting (preparation, analysis, reporting and storage)

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Visitor Surveys

A visitor survey process has been designed that incorporates four phases:

1. Questionnaire Development Phase
2. Sample Design Phase
3. Execution Phase
4. Data Analysis and Reporting Phase

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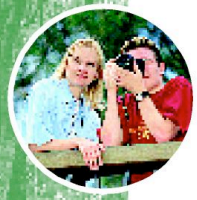



Questionnaire Development Phase

- **Steps**:
  - Objectives, resources, constraints
  - Review methods (personal, mail, telephone, electronic)
  - Compare and evaluate methods
  - Select most appropriate method(s)
  - Determine survey questions

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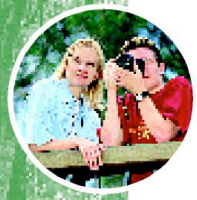



The Visitor Monitoring System divides survey questions into three types, described as modules.

1. ***Core questions module***: the questions contained in the core module must be contained in every visitor survey. The core questions that are of interest to all natural resource and land management agencies were identified in a series of workshops.

The core questions serve as a benchmark against the Australian Bureau of Statistics standard demographic questions and provide a baseline for comparing data across temporal and spatial scales.

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2. ***Question bank module***: the question bank module contains seven sub-modules containing questions relating to the following aspects:

- Visitor characteristics
- Travel characteristics
- Nature of the visit
- Interpretation and education
- Visitor spending
- Visitor satisfaction
- Natural area management

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Each sub-module has two components. The first component contains standardised visitor survey questions that have been tested and validated in pilot surveys in New South Wales and Queensland.

The second component of each sub-module contains best practice questions chosen from a comprehensive review of visitor surveys and workshops with staff from various resource and land management agencies.

All best practice questions and their formats use either Australian Bureau of Statistics or known best practice categories.

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A typical survey will therefore contain:

- core questions from the Core Question Module,
- standardised questions selected from the Question Bank Module,
- best practice questions selected from the Question Bank Module, and
- customised questions, if information on a particular issue is needed and cannot be obtained from the questions in the Question Bank Modules.

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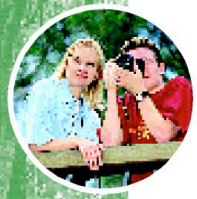



Questionnaire Design Phase

- Steps:
  - Layout and flow
  - Evaluation
  - Pre-test
  - Sampling strategy

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Questionnaire administration

- Steps:
  - Schedule
  - Locations
  - Staffing requirements
  - Pre-survey preparation
  - Questionnaire distribution
  - Data management

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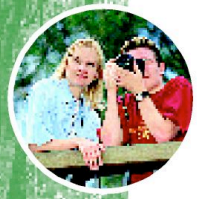



Data analysis and reporting

- Steps:
  - Preparation
  - Data entry
  - Analysis
  - Reporting

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Economic and social benefits

An improved understanding of visitors will provide a number of economic and social benefits including:

- a basis for assessing the role of natural areas as generators of economic activity. This will allow agencies to demonstrate the benefit/cost ratio associated with public investment in natural areas

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Economic and social benefits

- a reduction in the future costs of smaller scale projects
- the enhancement of visitor experiences will lead to greater appreciation of, and support for the protection of these areas

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Concluding comments

- To have a system of long term value, data needs to be accumulated that allows trends to be analysed and comparability issues to be addressed.
- In other words, gathering information about visitor numbers is not enough, rather information on visitor profiles or the nature of visitors, needs to be addressed.

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