

Abstract Number: abs#148

## Visitor Data Needs of Protected Area Agencies

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### Abstract:

*This paper reports on the results of a major study on the needs of Australian protected area agencies in relation to visitor data. The overall aims were to improve data collection, management and use within protected area agencies, and to develop nationally consistent approaches to visitor data where appropriate. The study involved a comprehensive review of current practices in every agency within Australia. The review engaged with staff at all levels from heads of agency to individual park managers. The outcomes included the identification of: key visitor data needs at various management levels of the agencies; areas where current data collection, use and management practices needed to be improved; and significant gaps in current data collections. From this, a list of key data needs was generated, with some being designated as 'core' and others as 'supplementary'. Core data needs were those that were seen as essential by every agency and where there were significant benefits to be gained by adopting a nationally consistent approach to data collection. These needs included aggregate estimates of state/territory-wide visitation, visitor profiles, visitor satisfaction, and key determinants of quality of experience. Supplementary data needs were those recognized as important for a range of specific management purposes, but where there was less value in ensuring consistency and sharing of information between agencies. The final phase involves developing indicators and testing methods and protocols for gathering, analyzing and disseminating the core data needs. The research team is currently working with a number of agencies on these tasks.*

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### Introduction

*This paper presents some key results from a major study, carried out by the Sustainable Tourism CRC, involving a review of current practices relating to visitor data collection, management and use within Australian protected area agencies. It involved all agencies and aimed to develop a nationally consistent system that would address current knowledge gaps and improve the overall quality of visitor data available to managers at various agency levels.*

### Past Reviews

*The need to develop a strategic, standardised and systematic approach to visitor monitoring has been long-recognised in Australia (e.g. Sheppard, 1982). In response, there have been a number of reviews over the last decade or so. One of the earliest and most significant was the A Australia and New Zealand Environment and Conservation Council (ANZECC) report (1996), which produced guidelines for a range of standardised measurement and visitor data collection protocols. A few years later Archer, Griffin and Hayes (2001) undertook a review of visitor data collection practices, with the intention of describing how agencies were collecting, storing,*

*analysing, reporting and using visitor data. This study revealed that practices varied widely and the ANZECC guidelines had been only very partially adopted, a finding reinforced by the Open Mind Research Group (2002). OMRG also found that while the guidelines were well regarded a range of constraints had limited to their application, including resource limitations, the complexity of the standards and the difficulty of operationalising them.*

*A common finding of these reviews was the variability and inconsistency of practices across the agencies. Different data were being collected, different measurement methods were being used for the same types of data, and the integration of visitor data into management and planning decision-making was highly variable. The reviews also highlighted the narrow range of data being collected. The agencies themselves have acknowledged these problems and some have made significant recent advances in developing systematic and consistent approaches to visitor data collection and use. However the inconsistency in visitor data collection and use across, and sometimes within, the various agencies has persisted, making it very difficult to determine, at the national level, the precise magnitude of visitation, identify visitation trends, or understand visitor market needs in relation to protected areas (Griffin & Vacaflores, 2004).*

#### *Study Method*

*This study adopted a participative action research (PAR) methodology. PAR aims to produce knowledge that is directly useful to a group of people, and to work collaboratively with that group as co-researchers (Reason, 1994). Within this framework, the study engaged all organisational level within the agencies, from heads of agency to park managers, and recognised that the structures and purposes for which data are collected varied between agencies. The researchers needed to ensure that the agencies had a shared ownership of the knowledge created and that this knowledge could be effectively used within each agency at the levels and for the purposes intended.*

*The first stage involved comprehensively reviewing current practices of visitor data collection, management and use, and identifying significant data needs not being met. Approximately 120 agency staff were interviewed in this process. The research team sought to interview staff who were involved in collecting, management or using of visitor data, or performed functions which reliant on it. The selection of relevant interviewees was driven by a snowballing approach that began with fielding recommendations from key agency contacts within head offices. The review gathered information on the following:*

- *Types of data collected*
- *Means of collection*
- *Organisational level(s) at which data were collected*
- *Use of data*
- *Storage and dissemination of data*
- *Factors influencing or constraining collection and use of data*
- *Current protocols guiding data collection, management and use*
- *Adequacy and reliability of available data*
- *Perceived gaps in existing data collections*

*A crucial step in this process was the establishment of an Industry Reference Group (IRG). The IRG's role was central to the research design and integral to developing cooperative knowledge management within and between agencies. The IRG was pivotal to encouraging agencies to work together in a collaborative environment. At the end of the review, the outcomes were presented to the IRG, which then reached a consensus on the common visitor data needs that required a nationally consistent approach. The IRG also identified a range of supplementary data needs which did not require consistent approaches but where existing practices required some improvement.*

#### *Visitor Data Needs*

*The review revealed wide variations in the types of data collected, the means of collection and measurement, and the subsequent management and application of the data. However there were a number of strong common themes and recognised data needs that emerged. Consultation with the IRG led to these needs being organised into two sets: core and supplementary data needs.*

*Core visitor data was defined as information that should be collected on an annual or other regular basis using a nationally consistent, standardised methodology across all agencies. Some of these data would need to be collected on a national basis and disaggregated down to an agency level. Other data may be collected at various levels within an agency, regional or even individual park. In this latter case, the data could, where appropriate, be aggregated up to an agency or national level, but the general rationale for collecting such data in a nationally consistent way is that there is some advantage to this consistency. It may, for example, allow inter-agency comparability or national benchmarking in relation to certain variables, but would also allow the knowledge gained about park visitation and visitor needs in one agency's jurisdiction to inform decision-making in that of another. The system, overall, would consequently not only improve the level and quality of knowledge across all agencies but also produce some efficiencies.*

*The following sets were agreed to represent core data needs:*

- *Aggregate number of visitors, or visits, state or territory wide*
- *Frequency/regularity of use*
- *Visitor profiles*
- *Visitor satisfaction, overall and with specific attributes*
- *Determinants of satisfaction/quality of experience*
- *Community attitudes, values and perceptions*
- *Economic value*
- *Trends affecting protected areas, reported so as to enable interpretation by all relevant levels within agencies*
- *Visitor safety*

*The immediate follow-on outcome of this process was to initiate a series of demonstration projects, still in progress at the time of writing, that would develop and test appropriate means of collecting and measuring these data. In some cases, such as in relation to aggregate visitor counts, the basis for this was to take a current approach that was acknowledged as the best, and*

*then refine and modify that method so that it was suitable for broader national application. Facilitated by the research team and IRG, the agencies have worked cooperatively in this endeavour.*

*These core data sets were further categorised as first or second tier needs, based on the relative priority and frequency of collection (e.g. annual). Aggregate visitor/visit counts were regarded as first tier. All agencies expressed a powerful need for a more accurate method of estimating total visitation within their jurisdiction, with some describing current estimates as embarrassing. The perceived value of such data was that it provided a key performance indicator for the agency and was vital to support funding submissions to the respective state or territory Treasuries. In addition, agencies are required to report annual visitation estimates to the Commonwealth Grants Commission (CGC), which has criticised the inconsistency of visitor number estimates (CGC, 2006). The fact that different agencies had varying methods for arriving at these estimates, most of which had a high margin for error, was a major concern. Agencies that tended to be conservative in their estimates felt that they could be disadvantaged. There were also concerns over whether the number of visits, which could be varyingly defined, was an adequate basis for determining the load that visitors placed on protected areas.*

*In relation to other visitor data, there was a general issue relating to the variability in the way certain indicators were measured, across agencies and even in different units within the same agency. This makes it unnecessarily difficult to draw inferences about general issues such as the importance of certain park facilities, and to benchmark performance against other parks and agencies in relation to indicators such as visitor satisfaction.*

*Supplementary visitor data was defined as that which provides some value for specific management and/or performance reporting tasks, but where there is no advantage in collecting on a consistent basis either nationally or within an agency. There was a wide range of such needs recognised in the course of the review, some of which were being met by methods in need of improvement. Such needs included:*

- *Visitor numbers at park level*
- *Spatial patterns of use*
- *Visitor information requirements*
- *Program evaluation*
- *Commercial tour activities*
- *Problems/complaints about service*
- *Facility preferences and expectations*

*The project's aim in relation to supplementary data will be to recommend appropriate methods, measures and protocols for the collection and use of such data.*

#### *Conclusions*

*Work on this project is ongoing, with the current focus being on developing and testing collection and measurement methods for the core data. To this end, projects are currently underway in three jurisdictions. The overall project has clearly demonstrated a need for more consistency and the willingness of agencies to work together to achieve this goal.*

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(3) Archer, D., Griffin, T. & Hayes, A. (2001) Managing People by Understanding People: a Review of Current Visitor Monitoring Practice by Australian Parks Agencies. 11th CAUTHE Conference, Canberra.

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