The 6th International Conference
on Monitoring and Management of Visitors
in Recreational and Protected Areas

Outdoor Recreation in Change
– Current Knowledge and Future Challenges

Stockholm, Sweden, August 21–24, 2012

PROCEEDINGS
Edited by Peter Fredman, Marie Stenseke, Hanna Liljendahl, Anders Mossing and Daniel Laven
The 6th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas

Outdoor Recreation in Change – Current Knowledge and Future Challenges

Stockholm, Sweden, August 21–24, 2012

PROCEEDINGS

Edited by Peter Fredman, Marie Stenseke, Hanna Liljendahl, Anders Mossing and Daniel Laven
Introduction

Welcome to the 6th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas (MMV). This publication is a collection of extended abstracts from five keynotes, 155 oral and 23 poster presentations. The main theme of the conference is Outdoor Recreation in Change – Current Knowledge and Future Challenges. This reflects not just changes in outdoor recreation participation and behavior alone, but also changes in management of recreational areas and society in general that will impact the future of outdoor recreation.

Sweden is globally known for excellent outdoor recreation opportunities based on a Right of Public Access. Participation has historically been associated with the Nordic ‘friluftsliv’ tradition, but more recently there are signs of changing recreation behaviors indicative of broader societal changes such as urbanization, globalization and technical developments, but also more specific factors like localized climate change, accessibility and resource management actions. In December 2010 the Swedish parliament voted for the government bill ‘The Future of Outdoor Recreation’ which was followed by a process where measurable goals were identified. One conclusion from this work was a call for both sound knowledge and high quality data in order to implement and evaluate policies serving the need of the general public. The MMV conference now offers an excellent opportunity to relate the Swedish experience to this broader international context.

The MMV provides a forum for presentations and other exchanges of ideas and experiences related to the monitoring and management of visitors in recreation and protected areas. The conference emphasizes policies, problems, practices and innovative solutions, and is therefore of equal relevance to managers and researchers. The first MMV conference was held in Vienna, Austria, in 2002 and following meetings have been in Rovaniemi, Finland (2004), Rapperswil, Switzerland (2006), Montecatini Terme, Italy (2008) and Wageningen in the Netherlands in 2010.

The organizing consortium of the sixth MMV conference is the Swedish research program Friluftsliv i förändring (Outdoor Recreation in Change) www.friluftsforskning.se – an interdisciplinary research program for the study of outdoor recreation and nature-based tourism supported by the Swedish Environmental Protection Agency. The program is a network involving 15 researchers from seven universities and colleges; Mid-Sweden University, University of Gothenburg, Karlstad University, Örebro University, Umeå University, Blekinge Institute of Technology, and the Swedish University of Agricultural Sciences.

The sixth MMV program covers a broad range of topics related to outdoor recreation and nature-based tourism. Different aspects of visitor monitoring and management of recreational areas are at the core of the conference, but the spectra of subjects in the papers clearly indicates a supply of related research which goes beyond these central themes. Each paper in this proceeding has been reviewed by the program committee and we hope you find this publication a useful overview of this field of research. A special thanks to Mrs. Hanna Liljendahl who edited all the submissions during the summer months, to Dr. Daniel Laven who improved the language and Ms. Lusine Margaryan who assisted in the proof reading.

Peter Fredman
Marie Stenseke
Benchmarking for visitor management in parks

Ross Taplin, Curtin University of Technology, Australia, r.taplin@curtin.edu.au;
Susan Moore, Murdoch University, Australia

Managing visitors in parks

The future of parks is as much a political and social outcome as it is an ecological one. Political success, particularly where the resources are in public ownership, as is the case with many of the world’s parks, depends on public support. Such support is increasingly based on being able to show value for money and the accrual of benefits to the public. Being able to report on the successes (and failures) of visitor management is part of this accountability.

Benchmarking

Benchmarking – ‘a systematic procedure of comparative measurement with the objective to achieve continuous improvement’ (Wober, 2002, 2) – offers promise as a means of reporting on and comparing performance. It has been widely used by business but limited use has been made of it in tourism and virtually none in park management, with several notable exceptions. A recent review of visitor attractions identified benchmarking as a way of better understanding the factors contributing to the success or otherwise of management (Leak, 2010). Benchmarking within a particular park system has benefits in terms of difficult management decisions regarding resource allocation and to identify areas of poor and best practice so the latter can drive improvements in the former.

Importance-performance analysis as a benchmarking tool

Importance-performance analysis, which measures and compares visitor’s perceptions regarding the importance of, and satisfaction with, attributes such as the friendliness of staff, cleanliness of toilets, and usefulness of maps, can provide data for benchmarking. It provides a visual representation of how well an agency or company is meeting its customers’ needs by placing attribute mean importance (performance) along the vertical (horizontal) axis of a two-dimensional plot (Fig. 1). Traditionally, cross-hairs are placed either at mid-scale or at grand means for importance and performance, creating four quadrants. For example, an attribute falling in the high importance and low performance quadrant suggests management action to ‘concentrate here’ (Tonge et al., 2011).

Benchmarking for parks in practice

Few examples exist in the peer-reviewed literature of benchmarking across park systems. Wade and Eagles (2003) come the closest with their study of Tanzanian national parks where they segmented visitors into southern circuit users, northern circuit users and climbers and compared the IPA results. Three examples from current practice and performance quadrant suggests management action to ‘concentrate here’ (Tonge et al., 2011).

Yardstick Parkcheck is a New Zealand based survey of visitors to parks managed by 16 councils in New Zealand and Australia. Visitors are asked to rate the importance and performance of specific park services and amenities (e.g., park gardens and trees, toilets) using a 5-point scale. The most recent report (Yardstick Board, 2010) illustrates the gaps between performance and importance for 10 attributes using bar graphs. For example, for cleanliness, all councils had a negative gap and for several councils this gap appeared relatively large. These graphs are easy to read and interpret.

The United States Forest Service NVUM (National Visitor Use Monitoring) Program provides results from visitor surveys across its national forests (USDA FS, 2012). Importance performance analyses cover 14 attributes including restroom cleanliness, employee helpfulness and signage adequacy. Results are provided for individual national forests, forest regions and the national system. Although tables provide results for each attribute in each park, benchmarking across parks is not explicitly performed.

Recently data collected from visitor surveys conducted in 13 parks and reserves in Western Australia has been used to undertake a Statewide park benchmarking exercise. The combined area of the parks managed by the WA Department of Environment and Conservation is 275,000 sq km (an area larger than Austria). Data have been collected for 23 attributes covering facilities provision and maintenance, information provision, staff performance, feelings of safety, and value for money. Several different approaches were investigated. Three are reported here, the first two relying on standard IPA and the third on a modified form – B-IPA.

1. Comparison of performance of parks across the system using standard IPA, with the cross hairs placed at the grand means for the parks. Two of the 13 parks appear in the ‘concentrate management attention’ quadrant, one a remote, but increasingly busy park and the other a peri-urban park with a long history of disruptive visitors in large numbers over public holidays (Karijini National Park and Land-Poole Reserve respectively).

2. Comparison of the performance of attributes across the system using standard IPA, with the cross hairs placed at the grand means for all the attributes. Usefulness of visitor guides was in the ‘concentrate management attention here’ quadrant and friendly, responsive staff was in the ‘overkill’ quadrant. This is similar to other analyses in the literature where data on attributes are aggregated for all parks in the system. It suffers from potential bias through benchmarking attributes to other attributes.

3. Modified approach called B-IPA (Benchmarking IPA) where the importance and performance of individual attributes are compared with the means of that attribute for all parks in the system. Such an
analysis allows direct benchmarking of an attribute with itself across the whole system. For example, B-IPA in the WA study suggested that at Karijini, road signs, road condition and maps and guides required attention relative to the performance of these attributes across the whole park system.

**Benchmarking issues and opportunities**

These examples provide a promising basis for further developing benchmarking. Future issues include who to benchmark against and the ongoing issue of achieving standardization (or even consistency) in survey questions asked of visitors. A promising opportunity is to further develop and apply B-IPA given the important insights it provides for managers in allocating resources across a park system, through identifying poorly and highly performing attributes at one park relative to other parks.

**Acknowledgments**

This research was supported under Australian Research Council's Linkage Projects funding scheme (project number LP100200014). The provision of visitor data by the Department of Environment and Conservation is acknowledged as is the associated assistance and advice provided by their staff, especially Michael Tuffin and Amanda Smith.

---

**Figure 1. Importance-performance grid (Source: Tonge et al., 2011)**

<table>
<thead>
<tr>
<th>Importance</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrate here</td>
<td>Keep up the good work</td>
</tr>
<tr>
<td>Low priority</td>
<td>Possible overkill</td>
</tr>
</tbody>
</table>


