

# Status of, issues with, and manager attitudes toward visitor monitoring in Japan's national parks

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## Introduction

Monitoring of visitor behavior and attitude is indispensable for management of protected areas, including national parks, and accurate information regarding such is thought to lead to prudent management (Cessford & Muhar, 2003). It is essential to know the number of visitors and their trends, motivation, and satisfaction. That information is useful for making decisions concerning the planning and management of parks and is essential for sustainable and appropriate use of these protected areas (Hornback & Eagles, 1999).

The number of visitors in Japanese national parks has been compiled and published since 1951. It just has added tourist statistics reported by municipalities. It is known that park managers and person charge of municipalities have doubted the information. In recent years, infrared traffic counters have been installed in the national parks. However, a few problems remain concerning reliability, usability, software, and durability.

This study aimed to clarify the current condition of visitor monitoring in Japanese national parks and to understand the issues and attitudes of park managers.

## Method

In January 2013, we distributed survey forms regarding visitor monitoring in the national park to the regional offices and management offices of the national parks. By March of the same year, 65 managers replied by e-mail, with 64 of these responses considered valid. We queried the method of visitor monitoring in each park, devices, data utilization, the error correction method, and problems with monitoring. Besides, we asked the recognition of the importance of visitor monitoring and the desirable research items that park managers considered.

## Results

More than 70% of park management offices were surveying the number of visitors. Whereas the most popular method was using infrared counters, direct observation was still conducted in some parks. Half of the parks corrected counting errors, such as double counting or midnight counting of infrared counters. The data on the number of visitors were beneficial for analyzing trends, planning for facility improvement, and examining management measures.

Infrared counters were installed in 41 locations, and 90% of them were "LR counters," which were developed in Japan. Managers reported many problems concerning the infrared counters, including overcounting, unlikely counting, the difficulty of access to installation locations, difficulty in obtaining power supply, and a shortage of staff who maintain the counters and collect the data.

Most park managers realized the importance of visitor counting and periodical questionnaire surveying to their park. However, they were concerned with the lack of budget and personnel, low reliability of survey methods, noncooperation with other agencies, and lack of research and analysis skills (Figure 1). In addition to the number of visitors, more than

70% of park managers considered it desirable to survey the motivation, behavior, and satisfaction/dissatisfaction of visitors.

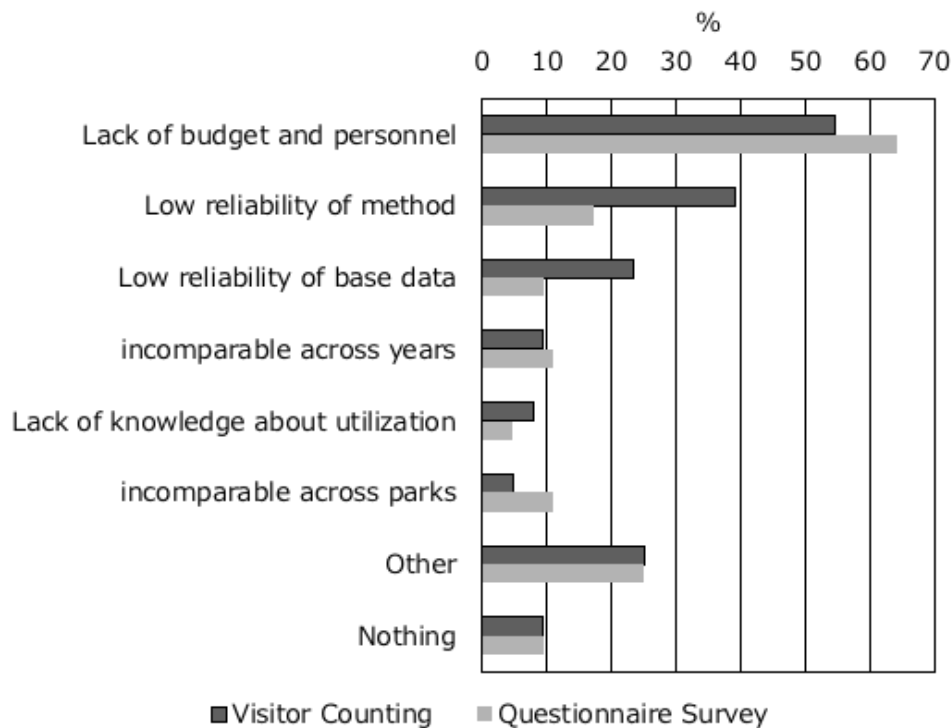


Figure 1. Concerns about monitoring by park managers

## Conclusion

The number of infrared counters installed in Japanese national parks has been increasing. Thus, it is necessary to develop and supply devices that can obtain stable data and learn device mechanisms and correction methods. Furthermore, because questionnaire surveying is occasionally conducted as a data collection method, uniform questions and formatting for such should be adopted nationwide.

Requests for the implementation of visitor monitoring in each national park will likely increase, owing to an increasing number of visitors. Like in Nordic countries, it is necessary to develop manuals for monitoring (Kajala et al., 2007), promoting cooperation among experts and research institutes, hiring social scientists, and increasing training opportunities for park managers.

## References

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