

Assessing recreation in the Danish nature – present Experiences, towards a future Monitoring System

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Danish Forest and Landscape Research Institute (DFLRI) and its predecessor organisations have a long tradition for collection nation-wide information about the recreational use of the Danish nature.

Among the most prominent activities are four investigations:

1. Two national assessments of the populations present recreational use of the nature. The surveys were conducted in 1975/76 and 1993/94. In each campaign 3000 households were surveyed using questionnaires.
2. Two national investigations of the publics preferences and attitudes to a number of nature characteristics. 1977/78 and 1993/94. Both campaigns were household-based.
3. The actual number of visiting cars was assessed in two regional investigations of specific forest and natures areas. In 1976/77 329 forest areas were investigated, whereas 592 nature- and forest areas were investigated in 1997.
4. In four localities the number of visiting cars are monitored continuously.

Due to the massive extent of the investigations, it has not been possible to repeat them at a higher frequency. To enable a higher repetition-rate and to enable a higher degree of comparability over time, DFLRI is presently preparing a proposal for the future setting of a national monitoring system. It is the intention of the system to ensure continuous standardised and updated data, useful in a wide spectrum of situations relevant to recreational planning and management.

In the context of such a future monitoring system, key issues to assess includes:

1. The type of indicators to compile,
2. the frequency and spatial distribution of the involved surveys and
3. the techniques to apply.

The method will include:

1. Dialog with potential users of collected data,
2. appraisal of the present international knowledge and experience and
3. further, development of the present methods and techniques developed by DFLRI (including use of GIS).

One possibility considered is to introduce and maintain a number of permanent measuring or sampling sites, which can be reused for returning surveys. On the destination side the sites can be stratified to e.g. cover different nature and landscape types and different levels of potential visitor pressure. On the origin side – where the visitor's dwell – sampling sites can be stratified to cover different social groups and areas facilitated differently with respect to natural resources. An option could be to configured sampling sites as square grid cells – e.g. of 500x500 m. This would provide measurement units stable over time and compatible with a

variety of other relevant data sources based on square grids. On the origin side, this could include personal and social data from Statistics Denmark. On the destination side, measures could be used together with data obtained from the Danish National Forest Inventory (NFI).

The presentation will focus on the experiences obtain from the campaigns of the past and on how a future monitoring system can be designed.