

# Prognosis on the Expected Landscape Changes in Mueritz National Park (Germany) and Landscape Perception of both Residents and Tourists

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## Introduction

Mueritz National Park is situated in the north east of Germany, half way between the cities of Berlin and Rostock. At present, over 70% of the area is covered by trees, with a large number of lakes located scattered throughout the huge forests. The national park also hosts peatlands, meadows, fields and a couple of small villages.

The national park authorities plan a variety of actions that will have effects on the landscape. Currently it is dominated by vast pine forests shaped by intensive silviculture. Agriculture and forestry will be reduced, drainage measures and water pumps will be shut down and the peatlands restored. In the surrounding areas, socio-economic changes are on the way. Employment in traditional sectors diminishes, while tourism is set to increase and become one of the main economic factors in the region.

Given these management plans, changes to the landscape in the coming years are unavoidable. However, impacts of these plans on the scenery have not yet been analysed in any detail. Nor has any study of the preferences of either visitors or residents for a certain type of scenery ever been undertaken.

## Research questions

- Which sceneries in Mueritz National Park are considered the most attractive by tourists and residents?
- What changes in landscape can be expected in the coming years?

## Aims

The objective is to determine the kinds of scenery with which the visitor will be confronted in the future. The analysis of both the tourists' and the residents' perception of the landscape will provide a framework for the park authority to identify scenic attractiveness of the National Park. By bringing together these two steps, the national park authorities will be able to identify potential conflict areas and initiate dialogue with the stakeholders.

## Methods

Different steps will be employed, each adapted to meeting the needs of the various aspects contained within the study. These include:

1. Present state and management objectives described in the national park plan (Nationalparkplan 2003)
  - using Forest Inventory data from 1999,
  - analysing agricultural land based on the method described in Strobel and Pulkenat (1995).
2. Prognosis
  - using Delphi-method for the agricultural land
  - simulating forest growth with "SILVA 2.2", developed at the Institute for Forest Growth at Munich University
3. Analysis of scenic preferences and their perception by interviewing passing persons at 5 different spots inside the park. Landscape preferences are identified in three different ways:
  - general impression

- on-site scenery
- using photographs

### First results

Over 70% of the national park area is covered by forests. Such large proportions of woodland are often sceptically perceived (e.g. Arbeitskreis Forstliche Landespflege 1991). The few existing open spaces inside the park often represent a richly structured, traditionally maintained cultural landscape with a great deal of local variation. Although this type of scenery does not really fit in with the goals of a national park, landscape planning theory claims these open places to be 'very precious' and an important component of landscape aesthetics.

According to an analysis carried out in 1993 and 1994 (Strobel & Pulkenat 1995), many of the open spaces within the national park still exist and are kept open.

The research work carried out in the summer of 2005 focused on landscape perception. People encountered on the hiking and bicycle trails were interviewed, as were tourists canoeing on the River Havel. First results indicate visitors' preferences for lakes. Peatland is also favoured by many, but is also disliked by some. The most unpopular feature are the man-made pine forests. The visitors' means of discovering nature are also interesting. The majority want to discover nature by bike. Canoeing, on the other hand, is most popular amongst the well educated, young visitors.

### First conclusions and Outlook

The first results of the comparison of the landscape analysis of 2004 with that of 1993/1994 reveal that the maintained meadows play an important role from an aesthetics perspective. Apart from their own intrinsic aesthetic value they also facilitate open views of the lakes, which are the most preferred landscape feature. Peatland may also play a more important role, as those who have seen it often found it very attractive.

Broadleaf forests with beech are considered quite interesting, much more so than the pine stands.

In 2006, research work will focus on simulation with SILVA 2.2 and Delphi interviews.

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### References

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