Abstract

Recreation management of natural forests is a component of sustainable regional development. After investigating five test areas, the following successes for recreation management in alpine natural forest regions, can be derived:

1) The presence of qualitatively good ground-rules and related law-enforced ideal models and management concepts. Qualitatively good ground-rules and precisely coordinated strategies.
2) The presence of personnel and financial resources.
3) Realisation of an integrated management philosophy (forest areas as protection-worthy, regional cooperation with those involved in natural forest projects).
4) The conduction of a practical, scientifically-supported monitoring program (frequency, activities and leisure trends, impacts to the natural forest area and its associated regional economy).

Keywords: alpine natural forests, ecotourism, recreational use of natural forests, successes for recreation management, socio-economic monitoring, regional development.

1. Introduction

Ecotourism is a form of tourism whereby the main touristic motives are the observance and enjoyment of nature together with the major traditional cultures of the region involved. Ecotourism has the potential to make useful contribution to sustainable regional development in many parts of Europe. Various studies and policies foresee above-average growth in Ecotourism in the coming decades (LEUTHOLD 2002; SECO 2003; WTO 2002). With the creation of new wide-area protected regions, local sources can more successfully develop and market suitable touristic ideas.

In most of these broad protected alpine regions, as well as in areas with enhanced natural worth – but not yet counting as protected regions – forests are the main form of vegetation. Their high natural value contributes substantially to the attractiveness of landscapes, thus providing a useful base for ecotourism. We can assume a direct relationship between the hemerobic-level of natural forests and their ecotouristic value. Thus natural forests represent in principal, a useful base for development in peripheral regions.

However, this ecotouristic potential has its risks and problems as well as its advantages. Without suitable management and with a growing number of visitors, these sensitive forests will be suffering under an increasing pressure. (MUHAR/ARNBERGER/BRANDENBURG 2002). This applies particularly to the sports activities and typical trends of these regions. Thus while promoting ecotourism, those locally responsible should also install systems of monitoring and management of visitors.

With the background of increasing economic value of natural forests for tourist purposes, the following questions will be discussed in this paper:

- What are the most important conflict situations for recreational usage in natural Alpine forests?
- What direct and indirect methods are proposed for recreational management in natural Alpine forests?
- What experience has management gained so far with current methods? What is the most frequent success/failure rate to date?
- Where do future challenges for successful recreation management lie in natural alpine forests?

2. Materials and methods
The above questions were examined, based on five alpine test-regions in Austria and Switzerland. The choice of these regions was dictated by the variety of natural alpine forests available (see Table 1). The investigation was based on semi-standardised telephone interviews with experts representing the five test regions. Subsequently, the collected data has been systemised and analysed by considering qualitative aspects. (Thanks to Harald Kremser, National Park Hohe Tauern (Austria) <http://www.nationalpark.at>, Christoph Leditznig, Dürrenstein Wilderness Area (Austria) <http://www.wildnisgebiet.at>, Paul Métry, Regional Natural Park Pfyn-Finges (Switzerland) <http://www.phyn-finges.ch>, Othmar Reichmuth, virgin forest of Bödmeren (Switzerland), Theo Schneider, Biosphere Reservation Entlebuch (Switzerland) <http://www.biosphaere.ch>.

Table 1. Characterization of the test areas

<table>
<thead>
<tr>
<th>Test area</th>
<th>Type of recreational usage</th>
<th>Recreational activities</th>
<th>Tourist infrastructure</th>
<th>Protected area categories (selection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dürrenstein/Rothwald Niederösterreich Austrian Alps</td>
<td>day tourism extended (summer and winter)</td>
<td>mountain hiking skitouring</td>
<td>hiking paths skitouring routes mountain huts</td>
<td>wilderness area</td>
</tr>
<tr>
<td>Rauriser Urwald Rauristal Hohe Tauern Salzburg Austrian Alps</td>
<td>long-term tourism extended-intensive (summer) extended (winter)</td>
<td>hiking walking picknicking</td>
<td>hiking and nature learning paths feeder road carpark shuttle bus cross-country track (planned)</td>
<td>national park, environment zone</td>
</tr>
<tr>
<td>Bödmeren-Urwald Schwyz Swiss Alps</td>
<td>day and holiday tourism extended</td>
<td>hiking snowshoe dog sledding</td>
<td>hiking paths alpine restaurants</td>
<td>swiss landscape protection area (BLN-Gebiet)</td>
</tr>
<tr>
<td>Moorlandschaft Habkern-Sörenberg Entlebuch Luzern Swiss Alps</td>
<td>day and long-term tourism intensive (summer and winter)</td>
<td>hiking mountaine bike alpine skiing cross country ski snowshoe</td>
<td>skilifts cross-country tracks hiking paths restaurants</td>
<td>protected landscape of moorland biosphere reservation swiss landscape protection area (BLN-Gebiet)</td>
</tr>
<tr>
<td>Pfyn-Finges Rhonetal Wallis Swiss Alps</td>
<td>day and long-term tourism extended-intensive (summer) extended (winter)</td>
<td>hiking walking picknicking cycling canoe/rafting</td>
<td>camping site hiking paths cycling paths bathing facilities shuttle bus</td>
<td>regional natural park (planned) swiss landscape protection area (BLN-Gebiet)</td>
</tr>
</tbody>
</table>

3. Results

3.1. Recreational activities in alpine natural forest regions
Tourist activities in the five test areas usually consist of a short intensive period in summer, plus a longer extended period in winter. All regions were mainly visited by individuals and groups, all inclusive tourism being an exception. As far as the tourist situation in these test-regions is concerned, one case contained quantitative data, the remaining four, qualitative data.

The natural forest areas investigated form, on the one hand, part of traditional tourist destinations (2 test areas), on the other hand regions little touched by tourism (3 test areas). In most test areas, one-day tourism dominated over longer-term visits (3 test areas). In all test areas, the recreational usage by the local population was substantially significant.
The recreational usage of the natural forest areas investigated is confined to the warmer half of the year. In most regions seasonal peaks occur during the summer months and at weekends. In some regions heavy, short-term tourist activity was experienced (3 test areas). All test areas are used by tourists during the winter season. This led to heavy use in one case – in the other cases to prolonged usage.

The most important activity in all five test-regions is hiking (5 test areas), followed by walking/picknicking (3), mountain-bike/cycling (3), skitouring (2), cross-country skiing (2), downhill-skiing (1), snowshoe hiking (1) and dog sledding (1 test areas). Hunting and fishing are either allowed by permit (3) or forbidden (2). In one area, off-road-vehicle (ORV) traffic was (illegally) observed. Increasing use was noted, particularly with mountain-bikes, cycling and snowshoe hiking.

Guided excursions are offered in all natural forest regions, with rising tendency and participation. In most areas learn- and experience-paths exist or are planned. In some areas nature-related experiences are commercially marketed (3 test areas). In many areas nature-study schools for children and youngsters are already established or planned (3 test areas). Only isolated huts, accommodation and hotels are available in these test areas. With one exception, the building of large infrastructures like roads, mountain railways, hotels etc. is avoided.

3.2. Conflicts, problems and trends
The conflicts and problems most frequently occurring in the test areas due to tourist involvement are:
- Seasonally related and varied disturbancies through guests and the forcing of game into remote areas of natural forests (forest/game problem).
- Seasonally varied disturbance of game through tourists, particularly in winter with ski-touring and snowshoe hiking.
- Upsetting the forests ecobalance by large-scale tourist usage like skiing on or near moorland, i.e. ski-route preparation and artificial-snow machines.
- Pollution of the air and ground, plus noise on peak days due to off-road-vehicles (quads, motor sledges, motocross).
- Safety risks for guests on leaving standard routes – particularly with winter sports.
- Conflicts and problems due to hunting and fishing requirements.

Future trends: In most of the alpine natural forest areas investigated, marketing and information efforts for potential guests and visitors will be stepped up. This in turn could lead to an increasing number of visitors. Again, this could tend toward an increase in the conflicts and problems outlined above. This applies in particular to the above-average increase in one-day tourism with its attendant increase in individual traffic. Further future potential conflict and problem areas involve off-road-traffic and nature related sports (especially in winter). However, the likelihood of large-scale technical development and its attendant dangers in these areas is small, viewed in the framework of todays political and economic situation.

3.3. Methods for recreation management
Most of the test areas possess good rules and methods for recreation management. One must differentiate between two methods:

A) Touristic management methods.
B) Spatial planning related and protected area related methods for recreation management.

A) Prime-examples, infrastructures, the development of offers, marketing and information all belong to the touristic methods for recreation management. Offer-development and information are of special importance to guide recreation efforts. Most alpine natural forest areas inform their guests with locally printed material (4 test areas). In addition, they also are named in regional tourist pamphlets (5 test areas). Most test areas have their own websites and are seen on the regional tourist homepage as well (4).

Dissemination also occurs via background reporting on radio and television as well as in popular publications, i.e. nature, hiking and touring guides (5 test areas). Furthermore, most regions regard professional sources – Rangers, excursion-guides, etc – as important suppliers of information to their guests.

B) Based on law-enforcement decisions, spatial and landscape planning, guides to protected regions and
management plans, all come under the regional planning related and protected area related methods for recreation management. Most of the examined test areas are foreseen as protected areas (4 test areas). They possess the appropriate management methods with more or less detailed statements for recreation management (national park plans, protected region concepts, management plans). In one region, due to local opposition, no protection strategies are available.

The following points – all applying to the protected areas related to methods of recreation management in the test areas examined – were identified:
- Overall management, cooperation with other bodies (councils, tourism, land- and forestry authorities, nature protection, etc).
- Provision and maintenance of pathways, routes and sign-posts for visitors.
- Build up of targeted information and education services for specific groups. Organizing excursions and public works.
- Control of time and place of admittance for visitors (available pathways, path closings/sessional closings, bans on driving etc).
- Control of permitted and non-permitted activities (eg. mountain-biking, skiing, snowshoe hiking, swimming, lighting fires etc).
- Quality assurance, visitor information, organized guides (uniformed rangers, information centres plus media etc).
- Management of public and private transport (shuttle service, bus, the provision, protection and maintenance of feeder roads and parking areas, etc.).
- Provision and further development of ideal models, management plans and realization routines with the participation of all concerned.
- Establishment of scientific backup and control - visitor, bio- and landscape monitoring.

4. Discussion

In most of the alpine natural forests examined, the present methods of recreation management were classed as “sufficient”. In one instance the present methods were only rated “partly sufficient”. In this particular case the legal authorization of the protected area category “wilderness area” was missing at regional and national level. In another case the existing methods are insufficient to prevent the construction of high-lying tourist infrastructure (ski-track) in the range of a natural forest region.

Considerable difficulties arise when deploying existing methods of recreation management in the areas of private motorized traffic and nature sports. In all the investigated areas, measures to limit motorized private traffic in access regions to natural forests have been reviewed and in some places adopted. These preventive measures include roadblocks, duty-charges, free bus-services and limited parking. The problems in the field of nature sports appear two fold. On the one hand, the classical, route-limited recreational usage shows fixed problems, while on the other hand, changing trends in tourism continually create fresh problems. With agreements between tourist agencies and local authorities in one test area, rules are being established for nature-bound winter activities.

In some natural forest areas, not forming part of large, classical protected areas (national parks, biosphere reservations), the legal grounds are not effective enough. These areas should be legally covered, where possible at national level.

In most of the natural Alpine forests areas examined the creation of environmental awareness of local inhabitants and tourists is already an important element of the management strategies. It will however still need further re-enforcement in the future. Professional collaborators and rangers are regarded as essential factors in these natural forest strategies. To support this, further demands on financing and personal have been made. In those areas where no recognized management exists so far, efforts are being made to create a full-time managerial position. Regarding the planned extension of the protected perimeters in many areas, it can be assumed that pressure for the improvement of personnel and financial resources will increase.

5. Conclusions

After having investigated five test areas, the following successes for recreation management in Alpine natural forest regions, can be derived:
(1) The presence of qualitatively good ground-rules at national and/or regional level. The presence of related law-enforced ideal models and management concepts. Precisely coordinated strategies and methods for regional protection and development plans. Clear statements regarding relevant tourist regions and recreation areas.

(2) The presence of personnel and financial resources for the strategic and practical guidance of managements. These resources further support general activities for the local public and guest support (information, visitor guides, environmental awareness etc.). These resources also support quality control and the realization of protection and development plans.

(3) Realization of an integrated management philosophy. This would regard natural forest areas as protection-worthy, providing opportunity for permanent regional development. This philosophy would foster cooperation with those involved in natural forest projects (local authorities, tourism, land and forestry interests, environment, etc). This regards the above of central and paramount importance.

(4) The carrying out of a practical, scientifically-supported monitoring program. This program would include the frequency, activities and leisure trends in its frame of reference. These factors would be continuously measured as to impacts to the natural forest area and its associated regional economy.

To be successful, tourism-oriented monitoring and management of natural forests needs to incorporate the view and practice of tourism (touristic management). Sustainable touristic management could be part of integral, tourism-oriented management of natural forests. In the future, it is therefore recommended to pay further attention to the development of integrated methods and instruments used for that purpose.

6. References


