Research in Alpine protected areas: importance and issues of international co-operations

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Abstract

Current international projects and co-operations of Alpine protected areas are focusing on three main issues: Visitor information and management, management of biological ressources, and global change issues. Exampels of successful international co-operation are WebPark, Habitalp, WWF-Programme "Biodiversity in the Alps", Glochamore, Gloria, as well as MMV-Conferences and some ALPARC working groups. In future, alpine protected areas should help to build up frameworks favorable for research co-operations such as common monitoring programs, databases publishing current research projects, regular scientific meetings and a new journal specialised on research in mountain protected areas.

Keywords

research co-operation, protected areas, management, biological resources, tourism, global change, European Alps

Protected areas are part of "learning regions" striving for sustainable development and land management. Scientific research is an important partner for them, to initiate, to promote and to implement knowledge-driven processes. International research co-operation among protected areas can provide access to recent knowledge and to new methods, and tools for information and management.

Topics of current international research co-operations

Current international projects and co-operations of alpine protected areas are focusing three main issues: (1) Visitor information and management, (2) management of biological resources, and (3) global change. Selected successful examples for international research co-operations are:

(1) Projects with a focus on the development of appropriate tools for visitor management and information: WEBPARK (Geographicallay relevant information for users in protected areas; 2001-2004) is an EU-funded project aiming at the development of software packages to provide information on a given area, place or topic at the visitors disposal by means of GPS and a pager.

The bi-annual Conference MMV (<u>Monitoring and Management of Visitors Flows in Recreational</u> and Protected Areas) – the frist has been held in 2002 in Vienna (Austria) – is aiming to develop methods and practices for visitor management in ecologically sensitive areas.

- (2) Projects developing strategies and for biological resource management: Such strategies need to be developed on a methodological rationale and a large scale view (larger than protected areas). Three current projects are progressing is such a direction:
 - The Programme "Biodiversity Vision for the Alps", leaded by a consortium of WWF, ALPARC, CIPRA and ISCAR, gathered in 2002 about 70 experts from all relevant disciplines and alpine areas to select priority areas for conservation of biodiversity (WWF, 2004). Finally, 23 areas have been selected all over the Alps, most of them including at least 1 protected area. In a next step an action plan has to be worked out for each priority area, which provides good opportunities for protected areas to integrate their management plans.
 - Ecological networks are crucial for preserving the biological integrity of protected areas. ALPARC recently published a study focusing networks among protected areas (ALPARC 2005). To establish ecological network all over the Alps, WWF, and ALPARC are coordinating a project to delimit potential connection areas inside the Alps as well as between the Alps and the neighboring lowlands and mountain ranges.

- ♦ With the INTERREG-Project HABITALP 11 alpine protected areas are designing a common typology and methodology for the inventarisation of habitats. This work will enable protected areas to install a common monitoring scheme for land cover and land use change.
- (3) In future, most of the mountain protected areas have to deal with the effects of global change. The Mountain Reserach Initative (MRI) and UNESCO initiated a EU-funded project GLOCHAMORE (Global Change in Mountain Regions; 2003-2005), which aims at the development of a research and monitoring strategy regarding the causes and consequences of global change in a selection of 28 UNESCO Mountain Biosphere Reserves (MBRs) around the world. Following GLOCHAMORE, protected areas should take an important role in the survey of the impacts of global change and in designing appropriate managment strategies to enhance the local adaptive capacity. The GLORIA project (Global Observation and Reserach in alpine Environments), a global network including an important number of protected areas aims at monitoring vegetation change on mountain summits that is tiggered by climate change.

Research co-operations among protected areas should pay more attention to topics like regional development integrating protection issues and encouraging the participation of local stakeholders, forest change and forest fires.

Enhance future research co-operations

For their own profit, alpine protected areas should engage in building up frameworks favorable for research co-operations. Some of suitable strategic orientations are:

- 1. The development and implementation of joint monitoring programs to generate comparable data sets and tools for data analysis
 - Co-operation in working groups of ALPARC (e.g. predators, springs, etc.) or in global programmes as GLORIA or as proposed by GLOCHAMORE.
 - Add existing monitoring data in the TEMS-Database: <u>http://www.fao.org/gtos/tems/mod_mou.jsp</u>
- To enable a co-ordinated research planning in each protected area, information on current research and monitoring projects in Alpine protected areas should be made available to everybody.
 - Provide information of current research projects to the database "European Mountain Pool" hosted by ALPARC: <u>http://www.alparc.org/europe/index.html</u>)
- 3. For better dissemination of scientific findings from protected areas, the creation of a new scientific journal specialised on issues from research in mountain protected areas, as proposed by ALPARC, should be reasoned. An appropriate example could be the American journal "Geology", which is publishing short articles of 4 pages.
- 4. Scientists which are leading projects in alpine protected areas should meet regularly for international and interdisciplinary exchange, such as at the Symposion for Research in Protected Areas organised by the Hohe Tauern National Park (Austria), at the Young Scientists International Meeting in Trafoi organised by the Stelvio National Park (Italy) or at the ForumAlpinum organised by ISCAR.
- 5. Alpine protected areas should promote research projects related to the multi-annual working programme 2005-2010 of the Alpine Convention, to profit from research networks throughout the Alps.

Protected areas have to play an active role in promoting international research co-operation. The importance of such co-operations will increase in future, as both, economic development and environmental issues in mountain areas will necessitate common databases and analysis for the development of successful management and protection startegies.

References

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WWF 2004: The Alps: a unique natural heritage. A common vision for the conservation of their biodiversity. WWF-Germany, Frankfurt Main

Web-Links

WebPark:	http://www.webparkservices.info/
MMV3:	http://www.wsl.ch/mmv-3
Habitalp:	http://www.habitalp.de
Glochamore:	http://mri.scnatweb.ch/content/category/3/10/31/
Gloria:	http://www.gloria.ac.at
Research:	http://www.alparc.org/europe/index.html

Acronyms of Institutions

- WWF: World Wildlife Found
- CIPRA: International Commission for the Protection of the Alps
- ALPARC: Network of Alpine Protected Areas
- ISCAR: International Scientific Committee on Alpine Research
- TEMS: Terrestrial Ecosystem Monitoring Sites
- GPS: global-positioning system

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ZOBODAT - www.zobodat.at

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