

Editorial by Jean-Jacques Brun



The international target on halting biodiversity loss failed to be met in 2010, the International Year of Biodiversity. Nevertheless, 2011, the International Year of Forests, opens new ambitious targets for 2020 in reversing biodiversity loss in forest landscapes and reducing the climate change impact on humans and biodiversity by implementing mitigation and adaptation measures and policies.

Protected mountain areas always include forests as they provide important sources of wood and other forest products that reflect their high biodiversity (endemic species). They also fulfil many environmental services, including protection against natural hazards and absorption of greenhouse gases from the atmosphere, as well as offering landscapes for tourism and recreation.

The role of mountain biosphere reserves is crucial as they handle the issue of sustainable ecosystem management, combined with conservation, scientific research, education and sustainable local development. Complex demands are being made of the management of such areas: halting biodiversity loss, adaptation to climate change, sustainable and attractive tourist activities.... So the challenge for biosphere reserves and other protected areas is to answer such a complex task with a more target-oriented, structured but still flexible, approach with active, skilled and collaborative people, institutions and authorities involved.

The articles in this issue reflect all of that. In fact, biodiversity management evolves between two extreme approaches: passive management versus active management, and their linkages to a range of ecosystem services, including existence values (Z. Kun).

Passive management is needed for example in the Dürrenstein wilderness area where we find the largest remnant of primeval mountain forest in the Alps (I. Kohl & R. Pekny). Protection measures will be of particular importance for endemic species like Macedonian pine with limited distribution (V. Antonovski & N. Velkovski). For Lepidoptera, pseudo-endemism may be much more widespread than expected and a transnational Barcode of Life project is providing strong evidence of much higher levels of cryptic diversity than hitherto known (P. Huemer).

Active management is needed to rapidly seek and test solutions, for example adaptation measures for climate change, as well as monitoring the changes as part of a global network. Biosphere reserves are of particular interest in such cases as the adaptation measures for natural and human systems can be piloted in these areas, assisting the development of resilience strategies and practices (T. Yashina).

But the best planning intentions can take off in unpredictable directions if local stakeholders perceive the process of development in a different way from what the planning regime was meant to do. Proper participation is also crucial for the success of a biosphere reserve (Jungmeier et al.). In general, the bottom-up development of protected areas and the strong involvement of local land owners and user groups can be seen as key elements for effective conservation, especially in countries with insufficient environmental budgets (S. Lange).

For developed countries it became obvious that a protected area will benefit from the promotion of its environmentally friendly use by the residents. Acceptance will grow and behaviour that runs against the conservation aims will be reduced (T. Behnen). The demographic changes in these countries, such as the greater number and fitness of older people, have consequences for tourism as they are very much in favour of the park's management and emphasize that the rules are appropriate and should be enforced even more strictly (A. Trachsel & N. Backhaus).

The journal *eco.mont* is really a great tool for a large debate on conservation ecology and cultural landscape management in protected areas. Landscape management outside protected areas often oscillates between two extremes: artificial landscapes (Heidiland) and wilderness area. Both positions tend to forget that the cultural landscape also has an enormous value and should be protected because it is endangered from both sides, i.e. abandonment and over-exploitation. It's the specificity of *eco.mont* to permit a real debate on such important topics.

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At the editorial office of eco.mont we maintain the **European Mountain Pool** on research in European protected mountain areas.

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Related Projects in the **European Mountain Pool**:

The man from the biosphere – exploring the interaction between a protected cultural landscape and its residents by quantitative interviews: the case of the UNESCO Biosphere Reserve Rhön, Germany *by Tobias Behnen*

Pseudo-endemism and cryptic diversity in Lepidoptera – case studies from the Alps and the Abruzzi *by Peter Huemer*

Biosphere reserves as a long-term intervention in a region – strategies, processes, topics and principles of different participative planning and management regimes of biosphere reserves *by Michael Jungmeier, Ina Paul-Horn, Daniel Zollner, Falk Borsdorf, Karin Grasenick, Sigrun Lange & Birgit Reutz-Hornsteiner*

Effect of Alpine karst on the hydrology of the Berchtesgadener Ache basin: a comprehensive summary of karst research in the Berchtesgaden Alps *by Gabriele Kraller, Ulrich Strasser & Helmut Franz*

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Backhaus Norman: The attitude of the local population towards the Swiss National Park, CH-4238

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Hammer Thomas: Mitwirkungs- und Agenda-21-Prozesse im Biosphärenreservat Entlebuch, CH-3273

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