

Editorial by Petra Sterl



As I am working in the Department of Nature and Environmental Education of Gesäuse National Park, the majority of papers in this issue are of interest for me and of relevance for the management of our national park. Given my work in nature and environmental education, the articles on integrative approaches, which consider and combine ecological and social issues, are particularly pertinent and useful for me.

The second issue of *eco.mont* in 2015, with an emphasis on protected areas in Central Europe, covers geographical regions from the Andes to the Taurus Mountains and from the Caucasus to the Carpathians and Alps. Most of the presented papers combine social and ecological research, following the current need for integrative and interdisciplinary approaches (Mirtl 2010).

Uzay Karahalil, Emin Zeki Başkent & Selahattin Köse present characteristics and preferences of visitors in Köprülü Canyon National Park, Turkey. This national park is the most visited national park in Turkey, situated closely to Antalya and is known for its archaeological monuments and remarkable natural features. The authors also discuss the importance of integrating the results of the visitor monitoring into the forest management plan.

A new habitat distribution map is introduced by Michael Kuttner, Franz Essl, Johannes Peterseil, Stefan Dullinger, Wolfgang Rabitsch, Stefan Schindler, Karl Hülber, Andreas Gattringer & Dietmar Moser. The map covers Austria, Liechtenstein, southern Germany, South Tyrol and Switzerland, is applicable to ecological research and spatial planning and can be used for local case studies as well as for trans-national analyses.

The forest wilderness of Kalkalpen National Park in Austria, one of Austria's largest distinct forest areas, is assessed by Simone Mayrhofer, Hanns Kirchmeir, Erich Weigand & Erich Mayrhofer. By analysing four different aspects of wilderness (naturalness, undisturbedness, undevelopedness and scale), they describe the state of forest wilderness after 20 years of national park management, raising the question if the national park is efficient in preserving forest wilderness.

Markus Noack, Johannes Ortlepp & Silke Wieprecht present advances in modelling spawning habitats of the brown trout, which take into account not only hydraulic conditions and the dominant substratum, but also multiple variables representing sediment characteristics. Study site is the River Spoel in the Swiss National Park, a mountain stream with a regulated flow throughout the year managed by a hydropower plant.

In their paper, Cesar Augusto Ruiz-Agudelo, Oscar David Bonilla-Urbe & Carlos Andres Páez analyse the vulnerability of agricultural and livestock systems to climate change in Colombia, using dynamic models. The study area of Rancheria River is situated in Sierra Nevada de Santa Marta Biosphere Reserve. This region is influenced by frequent droughts, high climate variability and recent changes in the farming system.

Radoslav Považan, Michael Getzner & Juraj Švajda put a value on ecosystem services of Muránska Planina National Park in Slovakia, situated in the Muránska karst plateau. The value of ecosystem services in this area amounts to EUR 10 million per year. The authors discuss the relevance of ecosystem services evaluation in order to secure funding for biodiversity and nature conservation.

This issue's Case in Point by Marika Kavtarishvili introduces Tusheti Protected Areas in Georgia, situated in the central part of the Caucasus, one of the biologically richest places on earth. Snowy peaks, deep rivers and old villages attract more and more tourists. The Tushetian people manage the Tusheti Protected Landscape, one of the Tusheti Protected Areas, by themselves through the local self-governmental body of the municipality.

Wienerwald Biosphere Reserve in Austria, the largest continuous deciduous forest in Central Europe, is situated in close vicinity to the city of Vienna. Therefore the biosphere reserve management faces high visitor pressure and visitor conflicts as well as habitat fragmentation. In their paper Günter Köck & Harald Brenner describe the participatory process of creating rules and suggestions for appropriate behaviour.

Riding Mountain Biosphere Reserve in Canada has a challenging history. Christoph Stadel describes it as an *island of natural vegetation in a sea of human-altered environments*, as Riding Mountain arises steeply from the prairies. For some ethnic groups, Riding Mountain is a sanctuary. Nowadays, Riding Mountain National Park forms the core zone of Riding Mountain Biosphere Reserve. Main challenges and prospects of this area are discussed.

Mimi Urbanc reviewed *Managing Cultural Heritage Sites in Southeastern Europe*, a new publication by CHERPLAN (Enhancement of Cultural Heritage through Environmental Planning and Management). Valerie Braun reviewed a publication by the Swiss National Park Wissen schaffen – 100 Jahre Forschung im Schweizerischen Nationalpark, which highlights the importance of long-term processes in nature and emphasizes research on long-term processes.

I would like to take the opportunity to draw your attention to one of our latest publications, *Gesäuse – Landschaft im Wandel*, which is reviewed in this issue of *eco.mont* by Kurt Scharr. The book illustrates the development of the landscape in the Gesäuse region before it was declared a national park, presenting a variety of illustrations from historic sources. Today's management of the national park is still strongly influenced by the region's long history of exploitation and utilization.

Environmental history is an important part of socio-ecological research, which plays a major role in LTSEER (Long Term Socio-Ecological Research) Platform Eisenwurzen. Within this platform, Gesäuse National Park supports communication between researchers and regional actors (Mirtl et al. 2015).

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Mirtl et al. 2015. Research for the Future – LTER-Austria White Paper 2015 – On the status and orientation of process oriented ecosystem research, biodiversity and conservation research and socio-ecological research in Austria. LTER-Austria Series, Vol. 2. Available at: http://www.uibk.ac.at/geographie/personal/borsdorf/pdfs/lter_austria_white_paper_2015_engl_printversion.pdf (accessed 02/06/2015)

Mirtl, M. 2010. Introducing the next generation of ecosystem research in Europe: LTER-Europe's multi-functional and multi-scale approach. In: Muller, F, C. Baessler, H. Schubert & S. Klotz (eds.), *Long-term ecological research: between theory and application*. 75–93.

Related projects according to the **European Mountain Pool**

At the editorial office of eco.mont, we maintain the **European Mountain Pool** on research in European protected mountain areas. http://4dweb.proclim.ch/4dcgi/ProtAreas/en/BuildSearch_ProtArea

eco.mont – Volume 7, Number 2, July 2015

Integrating visitor characteristics and preferences into forest management plans in protected areas: A case study in Köprülü Canyon National Park by Uzay Karahalil, Emin Zeki Başkent & Selahattin Köse

Assessment of forest wilderness in Kalkalpen National Park by Simone Mayrhofer, Hanns Kirchmeir, Erich Weigand & Erich Mayrhofer

Simulations of spawning habitats for brown trout in an Alpine river reach using a two-stage multivariate fuzzy-logical approach by Markus Noack, Johannes Ortlepp & Silke Wieprecht

The vulnerability of agricultural and livestock systems to climate variability: using dynamic system models in the Rancheria upper basin (Sierra Nevada de Santa Marta) by Cesar Augusto Ruiz-Agudelo, Oscar David Bonilla-Urbe & Carlos Andres Páez

On the valuation of ecosystem services in Muránska Planina National Park (Slovakia) by Radoslav Považan, Michael Getzner & Juraj Švajda

Related projects in the **European Mountain Pool**

Arne Arnberger: Urban sprawl and protected areas: How effective are buffer zones in reducing recreation impacts on an urban national park? CH-5029

Sevgi Öztürk: Management alternatives in national park areas. CH-5373

Siegrist Dominik: VISIMAN. Entwicklung einer flexiblen Management-Plattform für das Besuchermonitoring in Parks. CH-3789

Nicole Bauer: Attitude towards wilderness. CH-1947.

Kohl Ingrid: Management in the Dürrenstein Wilderness Area – How much human intervention can the wilderness tolerate? CH-5484

Nikolaus Medgyesy: Monitoring of autochthonous brown trout (*Salmo trutta f. fario* L.) populations in different brooks of the National Park Hohe Tauern. CH-5550

Carla Marchant: Protected areas in Northern Colombia. CH-5403

Grunewald Karsten: Climate change and related management issues in the mountains of Southeastern Europe. CH-5423

Ingold Karin: Ecosystem Services provided by the Wildnispark Zürich. CH-4562