



Editorial by Günter Köck – The Year of Biodiversity

The International Year of Biodiversity is slowly coming to an end. Our journal has taken note of this international effort aimed at making the public aware of the significance of biodiversity. The first issue of 2010 included several articles related to this topic. The current issue again focuses on biodiversity in protected mountain areas.

The impact of global change on biodiversity in mountain regions has emerged as a major theme, not least at the recent conference 'Global Change and the World's Mountains' in Perth, Scotland, and there particularly at the associated

conference of the international research network GLORIA (Global Observation Research Initiative in Alpine Environments). Alpine regions are still among the most untouched areas of the world and direct human impact on flora and fauna (e.g. through land use) is fairly low. At the same time, the warming climate exerts a growing influence on species composition. At higher elevations in particular, where cold-adapted and endemic animal and plant species live, the rising temperatures change habitat conditions and can lead to immigration of species from lower altitudes and / or the upward migration or even extinction of the original species. The majority of contributions to this theme comes from botany, while zoological research is scarce. With the exception of Ulli Vilsmaier's piece on the possibilities of transdisciplinary research in protected areas, the articles in this issue redress the imbalance between botany and zoology. Duda et al. investigate the habitat needs of two alpine land snail species in the North-Eastern Limestone Alps. Their work contributes to an improved assessment of possible changes in the population structure (living conditions) as a result of climate impact. In their article on collembolans, Querner et al. help us to improve our understanding the long-term effects of forest fires on the fauna in the soil. Fleury et al. explore the redwood ant populations in the Swiss National Park using molecular-genetic and behaviour-biological methods. The study by Komposch et al. on endemic arachnids in Gesäuse National Park indicates that these populations are also under threat from global warming and underlines the urgency of protective measures in these regions. Morand & Commenville present Mercantour National Park as this issue's Case in Point and stress the necessity of cooperating with the local population and incorporating local stakeholders in both the design and the implementation of appropriate protection measures.

Preserving species diversity certainly is a key task of protected areas. In order to assess any impact of global change on species diversity, however, we need to know the composition of biocoenoses and the role of individual members within the ecosystem. Today there is a blatant shortage of taxonomic experts across the globe, not only at universities but also in natural history museums and schools. In short: there is a dire need for experts capable of identifying known species, discovering and describing new species and for looking after biological collections. Concrete research projects, e.g. in Austrian national parks and biosphere reserves, increasingly have to rely on the expertise of specialists beyond retirement age. Knowledge on indigenous animal and plant species is disappearing at an alarming rate, especially if these species are not particularly striking or attractive.

As this global problem has also become virulent in Austria, the Austrian National Committee of the UNESCO Programme Man and the Biosphere (MAB) has initiated a declaration in support of the research area taxonomy/systematics. At first this initiative only aimed at the Austrian science community but soon found a strong response across the German-speaking countries and has to date been signed by over 270 renowned scientists, institutions and networks. We may hope that this broad support will have an effect on the relevant ministries and governing bodies of the universities in the medium term and lead to a rethink in budgeting and for advertizing and filling posts. I very much hope that by publishing the declaration in this journal we will encourage similar initiatives in other countries.

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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://www.alparc.org/our-actions/research-platform/european-mountain-pool>

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

Behavioural species discrimination in red wood ants (*Formica rufa* group) by *Matthieu Fleury, Christian Bernasconi, Anne Freitag, Pekka Pamilo & Daniel Cherix*

Cherix Daniel: Genetic structure of red wood ant (*Formica rufa* group), PN-3440

Schütz Martin: Do wood ants play an important role in carbon and nutrient dynamics in subalpine conifer forests?, PN: CH-2193

Transdisciplinarity and protected areas: A matter of research horizon by *Ulli Vilsmaier*

Hurni Hans: NCCR North-South: Research Partnerships for Mitigating Syndromes of Global Change. NCCR Nord-Süd: Forschungspartnerschaften zur Linderung von Syndromen des Globalen Wandels, PN: 5005-067375