

Declaration on supporting taxonomy research in Austria

By declaring 2010 the International Year of Biodiversity, the UN has drawn attention to biological diversity, i.e. the diversity of life forms. The term 'biodiversity' covers three causally linked levels:

- the diversity of species
- genetic diversity within species
- the diversity of habitats

The extinction of plants and animals and the loss of knowledge about their occurrence, ecology and use means a cultural loss for us and following generations. In addition, the loss of 'services' provided by natural and near-natural ecosystems ('ecosystem services') can cause enormous economic losses and reduce our options for the future. But to notice such a loss in the first place, one needs to have a thorough knowledge of (still) existing diversity. The discovery of new species and deeper insights into the diversity of species and their biocoenoses expands our knowledge on ecosystems (e.g. the effects of global change), enables us to gauge better the risks of interventions and helps us use them sustainably (e.g. biological agents such as antibiotics in newly discovered species).

The relevant biology subject area is taxonomy, i.e. the study area of biology concerned with discovering, describing and labelling new species and integrating them plausibly into the system of known species. Correct identification of species is a vital precondition of scientific work on any organism. Only on this basis does it become clear which organism the findings relate to in order to compare and contrast them with existing research. The invention of PCR technology has provided taxonomy with a valuable instrument for studying species, but the 30 year boom in molecular biology has led to unfortunate priorities in filling university positions. The number of chairs and professorial posts in taxonomy, systematics and organism-oriented plant and animal ecology has fallen sharply, resulting in much reduced training of students in these areas. By now, there is a dearth of taxonomic expertise across the world, not only at universities but also in natural science museums and in schools. In other words: there is a severe shortage of experts capable of identifying known species, discovering unknown species and describing them scientifically as well as looking after biological collections. Within the framework of the International Convention on Biodiversity, Austria has committed itself to preserving biodiversity, but appreciating, researching and protecting biodiversity requires thorough knowledge of species. Regrettably, in Austria, too, the shortage of scientists with a wide knowledge of species has become an acute problem. We have too few taxonomists, system specialists, plant-, vegetation- and animal ecologists with experience in field studies and conservation practice. Knowledge of endemic animal and plant species is disappearing at universities, in schools and in the general population.

Therefore, the Austrian National Committee of the UNESCO programme 'Man and the Biosphere (MAB)', together with over 230 scientists, research institutions and networks, demands that top priority be accorded to training in taxonomy and systematics at universities and in natural science museums. Implementing this prioritization necessitates additional funds and the creation of additional posts at universities (e.g. through foundation chairs) and museums. The perspectives for the much needed next generations of scientists also require significant improvement.

Unless measures are put in place quickly to improve the basis for taxonomic research and teaching, Austria will very soon cease to be able to fulfil its obligations to protect biodiversity.

