

belonging to 7 families were captured. Specimens from family Lycosidae were the most abundant ($D > 90\%$). In total 31 species were recorded. Of the identified species, 6 species are listed in the Red List of Spiders of Slovakia in different category of threat (*Hilaira tatrica*, *Lepthyphantes varians*, *Micrargus georgescuae*, *Rhaebothorax morulus*, *Trichoncoides piscator* and *Xysticus luctuosus*. Species *Pardosa saltuaria* from family Lycosidae was eudominant in all study sites. The invertebrates are a very important part of the alpine grassland ecosystem, due not only to a high number of species, but also to a huge number of individuals. Complex and multilateral relationships between different invertebrate groups, species and changes of their environment are reflected in composition of their communities. The influence of increased N and P supply on the composition of invertebrates with accent on spider communities was analysed and evaluated. Higher concentration nitrogen input has influence on diversity and abundance of some taxonomic groups.

Models of Sustainable Touristical Practices in Bulgarian Mountain Region

GEORGI GEORGIEV

Mountain tourism is one of the most dynamic economical activities in Bulgaria last five years. There is a real opportunities for optimization of the structure and development of this type of business. The presentation shows some of the most popular mountain touristical destination in Bulgaria like Bansko in the Pirin mountain (Southwest Bulgaria), Borovets in Rila mountain (Southwest Bulgaria), Pamporovo in Rodopi mountain (South Bulgaria). The investigation gives the frame of the general problems of these regions and looks for decisions for rational nature use and sustainable development of these regions.

Development of Europe-Wide Guidelines for Ecological Restoration in Mountain Environments

WILHELM GRAISS

During the last decades, the increasing opening of mountain regions for summer and winter tourism caused hundreds of square-kilometres of affected and partly devastated areas in semi-natural mountain environments all over Europe. On the one hand, the improvements in infrastructure like ski lifts, ski

slopes, accommodation facility and roads cause extensive interferences each year. On the other hand, expensive protections of the new infrastructure against torrents, land slides and avalanches are necessary. Since the joining of several new EU member states, an increasing investment in tourist infrastructure in mountain environments has been taken place (e.g. Slovakia, Bulgaria) and further measurements can be expected. A lot of bad experiences were made with the use of simple and cheap but unsatisfactory and ecologically questionable restoration activities, causing numberless follow up problems and leading to the spending of additional money for expensive subsequent improvement. Especially in the extreme and climatic disadvantaged mountain environments all over Europe, the existing state of the art of restoration and rehabilitation is still insufficient. Above all, due to the manifested prohibitions, mostly given in nature-protection laws, the use of vegetation alien to the site is in practice often ignored due to a lack of the knowledge of alternatives. However, during the same period, impressive progress has been achieved with the development of ecological restoration techniques in Austria, Switzerland and parts of Italy. This was rendered possible with the help of regional and EU-funded projects (e.g. ALPEROS - CT-98-4024, SURE - INTERREG IIIB/CADSES) that were carried out between 1997 and 2006, in order to create a new state of the art in restoration of semi-natural environments. The results of the projects clearly showed that the use of ecological restoration methods, combining indigenous vegetation/seeds with improved application techniques, lead to multiple economic and ecological advantages. Looking at the pan-European situation, the current awareness of technology for the ecological restoration of semi-natural ecosystems in mountain environments is defined very differently and the knowledge of special restoration methods is still insufficient in most affected countries. The legal sphere dedicated to extensive restoration methods strongly lacks uniformity. What is common in some countries is strictly forbidden in others. In almost all of the affected states, nature-protection permission for building projects in climatic disadvantaged mountain environments is obligatory, but realization of laws are not or less than strictly controlled. There is also a lack of information concerning what is technically possible. The development of binding guidelines for site-specific restoration in European mountain environments, which reflect the latest awareness of technological and ecological advance and the binding requirements permitted to the authorities are urgently needed.