

## Workshop regarding current issues with high mountain protection in Norway and the Slovak Republic

Workshop on current problems of high mountains protection in Norway and the Slovak Republic, Bø, 27.4.2015 - 1.5.2015

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IHMB Tatranská Javorina researchers and scientists from TUC in Bø (Norway) organized the workshop from April 27<sup>th</sup> to May 3<sup>rd</sup> 2015, financed by EEA and Norwegian grants. The main objective of the project was to strengthen and further develop bilateral relations between IHMB and TUC. For the first two days the participants were in the Bø campus, where experts gave presentations on various subjects. A third day of presentations continued in Stavem, a seaside town on the south coast of Norway. During the last two days experts carried out field work

monitoring avian diversity on the coast near Stavem.

On Tuesday 28<sup>th</sup> of April Anette Staaland and Anette Norheim Fredly spoke about a Joint master program from a Norwegian perspective. Expected to start in autumn 2016, the study will take place in both Slovakia and Norway. The purpose of this project is to establish a master's program in ecology specializing in alpine ecology and to reinforce existing cooperation between the Department of Environmental and Health Studies and IHMB. The cooperation will concentrate on the study and research of mountain ecosystems that are exposed to a number of adverse environmental factors at present, financed by the Ministry of Education and the Norwegian Centre for International Cooperation on Education. Marián Janiga continued speaking about Joint Master accreditation from a Slovak viewpoint. Peter Mikoláš made a presentation about Alpine ecology study programs at other universities in the world. He focused on market awareness



Fig. 1. Economics in Slovak areas of nature conservation presentation.



**Fig. 2.** Geographic information system presentation.

that we will enter with master degrees and on our strong and weak points. He continued with another presentation about the current state of Slovakian nature protection economics in areas of nature conservation and went on to explain funding for nature conservation in the individual regions (including alpine habitats) of Slovakia (Fig. 1). The first day was brought to a close by Jaroslav Solár from IHMB, who spoke about geographic information system research and usage in ecological sciences (Fig. 2).

Wednesday started with a presentation about research activities at the IHMB department of Zoology. Martina Kufelová commented on various studies carried out in recent years, current research activity and potential future research using new equipment (RTG, USG, gastroscope, microtome). The seminar continued with a botanical presentation by PhD student Shea Sundstøl. She talked about the ecology of lichens in the southern Norwegian mountains. Afterwards, a zoologist Øyvind Steifetten presented his ongoing research regarding dispersal behavior and population genetics of rock Ptarmigan and Willow Grouse. After lunch, Michal Némethy reviewed molecular tools in alpine biology used at IHMB in recent years, referring to PCR diagnostics, population genetics, plus Slovak and foreign research focused on bacterial communities in snow and water.

After moving to Stavern, we started the next day's seminar with two botanical presentations from Arvid Odland, a botanist from TUC. To begin with he spoke about the present day status of Alpine ecological studies at Telemark University College. The second presentation was about his

actual research topic - The Importance of soil and air temperature on alpine ecosystems. After that Mona Sæbo brought attention to the forensic methods at Telemark University College. The theoretical part of the workshop was finished by summarizing outputs and planned articles for public notification.

On Friday 1<sup>st</sup> may researchers went into the field to monitor avian diversity. They started in Stavern and continued along the coast to Brunvall Gard. They observed over 40 species of birds. On Saturday they stayed in the Stavern vicinity where there is a freshwater lake.

After several successful projects between TUC and IHMB, mutual cooperation continues to thrive. Young scientists were given the opportunity to meet more experienced colleagues, to look into their research, theoretically by presentations and practically by field work. At the workshop details of the joint master program were discussed. Experts from both institutions also debated a new project within the EHP Slovakia scholarship program - institutional cooperation between universities and secondary education to improve the methodology of Alpine ecology modern teaching, which is currently at the approval stage. Subject to approval, the IHMB and TUC can expand cooperation to universities in Iceland and Liechtenstein.

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