

## **Natural Resources Management in Mountainous Areas II - Forest Protection** **(VZ, 916.314, 2 h), summer semester 2011**

**Lecturers:** Thomas Kirisits (thomas.kirisits@boku.ac.at) and Christian Stauffer (christian.stauffer@boku.ac.at), Institute of Forest Entomology, Forest Pathology and Forest Protection (IFFF), Department of Forest and Soil Sciences, University of Natural Resources and Applied Life Sciences, Vienna (BOKU), Hasenauerstraße 38, A-1190 Vienna.

**Venue:** Seminar room of the Institute of Forest Entomology, Forest Pathology and Forest Protection, Hasenauerstraße 38, 1190 Vienna.

**Dates of the lectures (13:15 - 14:45):**

March 8<sup>th</sup>, 11<sup>th</sup>, 15<sup>th</sup>, 18<sup>th</sup>, 22<sup>nd</sup>, 25<sup>th</sup>, 29<sup>th</sup>

April 1<sup>st</sup>, 5<sup>th</sup>, 8<sup>th</sup>, 12<sup>th</sup>

May 10<sup>th</sup>, 13<sup>th</sup> (13:15-15:00! Guest lecture by Jean-Claude Grégoire), 17<sup>th</sup>

**Date of the excursion (voluntary!):** May 20<sup>th</sup>, 2011 (9:00 to approximately 16:00); the excursion will be conducted somewhere in the Vienna woods in the Western part of Vienna; the meeting point can be reached with public transport (tram or bus); details will be announced.

**Suggested dates for the seminar presentations and the written examination (to be discussed!):** June 29<sup>th</sup>, 2011 (9:00-12:00 and 13:00-15:00) and June 30<sup>th</sup>, 2011 (9:00-12:00 and 13:00-15:00)

**Marking** of students is based on the oral seminar presentation (50 %) and on the written examination (50 %); for successful completion of the course the written examination needs to be positive (more than 50 % of the total points), otherwise it is necessary to repeat the test.

**Course home page:** <http://www.wabo.boku.ac.at/7380.html?&L=0> (password for opening the files will be announced!)

**Objectives of the course:** This course aims to provide an overview of abiotic risks, insect pests and forest tree diseases in mountain forests and afforestations at high altitudes. Examples of forest health problems in plantation forests will also be reviewed. The students shall develop skills to understand specific disease symptoms, pathogenesis and host-pathogen/pest-environment-relationships, to develop strategies of disease/pest prevention and management and to appraise the global importance of pests, pathogens and abiotic damaging factors in forest and natural resource management.

**Contents of the course:** This course reviews the biology and ecology of selected forest insects and their role as pests or natural enemies in mountain forests as well as the role of diseases in mountain forests and afforestations at high altitudes. Examples of forest health problems in plantation forests will also be reviewed and the global importance of pests, pathogens and abiotic damaging factors in forest and natural resource management will be highlighted. The students shall attain skills for determination and evaluation of abiotic damages and frequent and/or important insect pests and tree diseases in mountain forests and afforestations at high altitudes. Specimens will be examined macroscopically and microscopically and students will be trained in differential diagnosis of forest damages based on symptoms and signs. The course also introduces to methods of monitoring, prognosis, risk assessment as well as pest and disease management in mountain forests, to the importance of predisposing factors for disease development and insect damage, to the role of provenances and to the risks of growing exotic tree species. The field component of the course will consist of a one-day excursion. In addition, students will be asked to work on a specific forest protection problem (e. g. from their home country) as part of their semester project, which will be presented in a seminar to the other students.