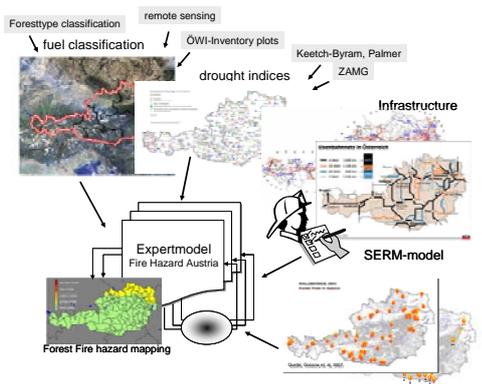


## Open PhD position at the Institute of Silviculture

The Austrian Forest Fire Research Initiative (AFFRI) supported by the Austrian Science Fund (FWF) encompasses two major objectives (i) to identify Forest Fire “hot spots” in Austria in dependence of vegetation, climate and location, and (ii) to develop a fire-vegetation simulator for Austrian conditions. It is planned to find out where and why there exist potential forest fire “hot spots” in Austria, and if there is an increase of the probability for expansion under the consideration of the effects of global warming. Austrian forests do not fulfil the characteristics of fire prone ecosystems, nor were they heavily fire-impacted so far. Due to the debate on likely climate change it is hypothesized, that the risk of forest fires as potential disturbance agent will increase in coming years and decades here too. In parts of Lower Austria (Black Pine *Pinus nigra* forests), Carinthia and Tyrol forest fires have already taken place after long dry periods in spring and summer in combination with low precipitation in the winter term. In that context a PhD position at the Institute of Silviculture for the analysis of the forest fire hazard in AFFRI is offered for a period of three years (30h/week) and founded by the FWF.

### Description of the position:

Forest fires at any location are a result of complex interactions between fuel, forest structure, topography, ignitions and weather conditions. The PhD thesis „**Development of a forest fire hazard model in Austria**“ should analyse the reasons and circumstances for forest fires in the mountainous terrain of Austria and develop a forest fire hazard model. Based on comparable international approaches the forest fire hazard model will combine a socio-economic risk model, drought indices and a fuel classification approach. This includes the consideration of fire weather options and topoclimatological aspects, importance of human influences as well as different forest types. The analysis of field data and forest fire records, the combination of meteorological data with the fuel classification for Austrian conditions should help to derive the major factors for forest fires. The expert model to be developed and applied should describe the risk of forest fires for current conditions based on ecological variables (weather, fuel type, topography), and on socio-economic variables (e.g. outdoor housing density, infrastructure, tourism activities).



### Application:

Applicants should have conducted a master program/master thesis with relation to described field, experiences with statistical methods, spatial GIS analysis and handling of digital databases. It is expected that in the course of the position the PhD thesis is finalized. Please send your application (in German or English) including a curriculum vitae, description of the recent scientific work and a letter of motivation for the above mentioned study until the 30<sup>st</sup> of Oktober 2008 to Hr. Harald Vacik at the Institute of Silviculture.



### More information:

Ao.Univ.Prof. Dr. Harald Vacik  
Institute of Silviculture - Department of Forst and Soil Sciences  
University of Natural Resources and Applied Life Sciences  
A-1190 Vienna, Peter Jordanstr. 82  
Tel.: 0043 / 1/47654/4052 / Fax.: 0043 / 1/47654/4092  
e-mail: harald.vacik@boku.ac.at / web: <http://waldbau.boku.ac.at/vacik.htm>