Employee (m/w/d) for the project

„USING ARTIFICIAL INTELLIGENCE AND REMOTE SENSING TO MONITOR FOREST HEALTH UNDER CLIMATE CHANGE“

For over 50 years, the forest ecosystems in the Bavarian Forest National Park have been able to develop without direct human intervention. The national park, therefore represents an important outdoor laboratory for researching natural forest development and plays a major role as a reference area for environmental observation because only here can the effects of environmental changes be observed without forest development being influenced by management measures. Due to the inaccessibility of the area, primarily remote sensing data is used to monitor the forest ecosystems of the national park.

Climate change leads to gradual and sudden changes in forest cover. Declines in vitality can be detected using remote sensing methods, and the degree of risk can be determined using artificial intelligence. Our project aims to assess the health of the forest, identify the most endangered stands and suggest suitable management measures. The threats are assessed based on trends in phenology, tree species composition, biomass and the condition of the stands. For this purpose, field measurements are combined with remote sensing data and artificial intelligence algorithms. The project is carried out in cooperation with the University of South Bohemia and the University of Munich.

The sought-after employee is responsible for the planning, implementation and coordination of the project, analyzes the data, publishes the research results in international journals and presents them at conferences. Supervision of bachelor's and master's students is also part of the range of tasks.

Your profile:

Remote sensing scientist, forest scientist, geographer, forest scientist, landscape ecologist or related training:

- Excellent Master’s degree
- Excellent background in the analysis of remote sensing data, especially Satellite and LiDAR data
- Excellent knowledge in the handling of large data sets with R and/or Python
- Excellent knowledge of English and scientific writing
• Willingness to work in the field for extended periods and under difficult conditions
• Driving license

**We offer:**
Competent and close supervision in a project striving to understand basic ecological principles within an already established broad spectrum of scientific disciplines. The positions are at the Bavarian Forest National Park Administration. Open to applicants is a 65% position according to the collective agreement of the federal states for public service (TV-L) in pay group 13. Depending on funding the position could be increased to 100%. The position offers the opportunity to do PhD thesis at the University of Freiburg. The position is limited to the duration of the project, 36 months.

The workplace is generally suitable for people with severe disabilities. Otherwise, equal applicants with severe disabilities will be given preference. To achieve equality between women and men, women are particularly encouraged to apply. The National Park Administration actively promotes equality for all employees. We therefore welcome applications from everyone, regardless of their cultural and social background, age, religion, belief, disability or sexual identity.

Please send your application (CV, motivation letter and your earliest possible starting date as well as certificates including academic records) as one PDF file at the latest by Mai 26th 2024 via e-mail with the subject “Remote Sensing Scientist” to personal@npv-bw.bayern.de.

Further information: Prof. Dr. Marco Heurich marco.heurich@npv-bw.bayern.de.