

The Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI), research group 'Terrestrial Environmental Systems' in Potsdam, Germany, invites applications for

3 PhDs /Post-docs

(Siberian vegetation ecology/genomics/ancient DNA)

starting 01.10.2017.

Position #1: Vegetation ecology at the Siberian treeline

Description: In the course of global warming, the boreal treeline is expected to move northward into tundra regions. However, a mechanistic understanding of the climate-vegetation relationships is still lacking for northern Siberia. In particular, the temporal characteristics of the vegetation response as well as the changes of key ecosystem characteristics (e.g. biomass) are still largely unknown. As part of this position, field-based vegetation analyses, vegetation data synthesis and linking field-data and remote sensing products will be applied to track ongoing vegetation change.

Position #2: (Palaeo-)genomics of Siberian tree taxa

Description: Siberian forests are unique. Most of the area is covered by pure *Larix* (larch) forests that can grow on permafrost. As part of this position, genetic/genomic analyses of modern plants and of DNA preserved in sediments will be applied to identify the long-term biogeographical pattern of the different *Larix* taxa (and other tree taxa) as well as their specific adaptations.

Position #3: Siberian ecosystem dynamics inferred from sedimentary ancient DNA

Description: Siberian ecosystems were characterized by strong changes during the Quaternary which has hitherto only partially been documented. As part of this position, past biodiversity and foodweb changes (e.g. herbivores-vegetation relationships) between glacial and interglacials will be analyzed using sedimentary ancient DNA, which allows a more complete view of past ecosystems than traditional proxies.

Questions will be answered by Prof. Dr. Ulrike Herzschuh (Ulrike.Herzschuh@awi.de) or Sigrun Gräning (Sigrun.Graening@awi.de).

Profiles of the Candidates: The successful candidates should hold a M.Sc. or PhD degree in biology, geoscience, or related fields. Practical experience with standard molecular genetic techniques (position#2,3), field ecological approaches (positions#1) and data analyses tools (R, bioinformatic programs) are mandatory. Good English language skills are a prerequisite. A willingness to participate in field campaigns in Siberia is a requirement.

The positions are limited to 3/2 years (PhDs/Postdocs). The salary will be paid in accordance with the German Tarifvertrag des öffentlichen Dienstes (TVöD Bund), salary level 13 (PhD: 66%/, Postdoc: 100%). The place of employment will be Potsdam where we offer you a multi-disciplinary, international, and fascinating professional environment with flexible working hours, state-of-the-art research equipment, and a first-rate infrastructure. As Ph.D. student at AWI you will be member of the Helmholtz Graduate School for Polar and Marine Research 'POLMAR' (<http://polmar.awi.de>) or another graduate school.

AWI aims to increase the number of women in the scientific staff and therefore encourages women to apply. Disabled applicants will be given preference when equal qualifications are present. The AWI fosters the compatibility of work and family through various means. Because of our engagement in the area of work-life compatibility we have been awarded the certificate "Career and Family".

Please send your application with the standard documentation (cover letter with motivation, CV, degree certificates, abstract of the Master thesis, names and addresses of two referees) quoting the reference number **91/D/Geo-P (position#1)**, number **92/D/Geo-P (position#2)** or number **93/D/Geo-P (position#3)** by **August, 20th, 2017** per e-mail (all documents merged into one PDF file) to Sigrun.Graening@awi.de.