

Forest regeneration and biodiversity at the forest-steppe border of the Altay and Khangay Mountains under contrasting developments of livestock numbers in Kazakhstan and Mongolia

Initiative: Zwischen Europa und Orient - Mittelasien/Kaukasus im Fokus der Wissenschaft

Bewilligung: 31.03.2010

Laufzeit: 3 Jahre

For reasons of comparability, all studies are carried out in forests of Siberian larch (*Larix sibirica*) of the Altay-Khangay-Sayan ecoregion. With the help of tree-ring analyses, forest regeneration before and after the onset of the political and economic transformation process is studied at the forest-steppe borderlines of either country. Furthermore, plots varying in the distance to the forest line and in the mean of annual precipitation are included in the sampling design and examined both for forest regeneration and (with selected groups of organisms) for biodiversity. In addition, local gradients of goat densities and their effects on forest regeneration and biodiversity are studied. Connected to this work, tree-ring analysis is implemented as tool for teaching and research at Pavlodar State University, Kazakhstan. Since central Asia is subject to particularly severe late 20th century warming, tree-ring data are also used to detect regional climate trends and to assess the significance of climate for forest regeneration. Climate warming is included in the study, as changes caused by the transformation process cannot be correctly identified without knowing the climate influence.

Projektbeteiligte

Prof. Dr. Markus Hauck

Universität Göttingen
A.-v.-Haller-Institut für Pflanzenwissenschaften
Abt. Ökologie und Ökosystemforschung
Göttingen

Dr. Choimaa Dulamsuren

Universität Göttingen
Albrecht-von-Haller-Institut
für Pflanzenwissenschaften
Abt. Ökologie und Ökosystemforschung
Göttingen

Prof. Dr. Christoph Leuschner

Universität Göttingen
Albrecht-von-Haller-Institut für
Pflanzenwissenschaften, Abt. Ökologie und
Ökosystemforschung
Göttingen

Prof. Dr. Kaman Ulykpan

Pavlodar State University
Department of Ecology
Pavlodar
Kasachstan

Dr. Viktor Kamkin

Pavlodar State University
Department of Ecology
Pavlodar
Kasachstan

Prof. Dr. Badamdorj Bayartogtokh

National University of Mongolia
Department of Zoology
Ulaanbaatar
Mongolei

Prof. Dr. Nachin Baatarbileg

National University of Mongolia
Department of Forestry
Ulaanbaatar
Mongolei

Prof. Dr. Jamsran Tsogtbaatar

Mongolian Academy of Sciences
Institute of Geoecology
Ulaanbaatar
Mongolei

Prof. Dr. Gulnar Asylkhanova

Pavlodar State University
Pavlodar
Kasachstan

Prof. Dr. Chinbat Sanchir

Mongolian Academy of Sciences
Department of Botany
Ulaanbaatar
Mongolei