# Job announcement ref. #11-25019

The **Senckenberg Biodiversity and Climate Research Centre** (SBiK-F), which is part of the the Senckenberg – Leibniz Institution for Biodiversity and Earth System Research (SGN), is seeking to fill the following position at its location in Frankfurt am Main, ideally starting as soon as possible:

## Postdoc in vegetation modelling (m/f/d)

**(Full time / part time options available)**

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| **Location:** | **Frankfurt am Main** |
| **Employment scope:** | **Full-time; part time options are available (min. 75%)** |
| **Type of contract:** | **contract for 2 years, to be started as soon as possible** |
| **Remuneration:** | **Collective agreement of the state Hesse (TV-H) / E13** |

Founded in 1817, the Senckenberg Research Institute and Natural History Museum in Frankfurt am Main is one of the world's leading research institutions in the field of biodiversity and Earth System Research, with eight research institutes across Germany and scientists from over 40 nations. Our headquarter is located in the thriving commercial metropolis of Frankfurt (Mainhattan) in the heart of Germany, which also hosts one of our most famous facilities, the Senckenberg Natural History Museum. The mission of the Senckenberg Biodiversity and Climate Research Centre is to study the complex interactions between biodiversity and climate change.

The postdoctoral position is embedded in the the collaborative project Past to Future: towards fully paleo-informed future climate projections (P2F; https://past2future.org) with 24 partners. It has recently been funded by the EU horizon program. The aim of the position's subproject here is to use latest spatially downscaled climate model results for the past (mainly since the Last Glacial Maximum but also for the Pliocene) to simulate the effects of climate change on vegetation and ecosystem processes with the Lund-Potsdam-Jena General Ecosystem Simulator (LPJ-GUESS) vegetation model (the European and the global version). The vegetation model results should be compared with pollen-based reconstructions of vegetation dynamics and charcoal records to reconstruct wildfire dynamics, in particular for very large fires. A special focus lies on extreme events and rapid changes. We want to test if our current climate and vegetation modelling tools can reproduce the past reconstructions and develop them further to improve climate impact modelling. We also collaborate with archeologists to better understand how past environmental changes have influenced human societies.

## Your tasks

- Run LPJ-GUESS with the latest climate model output, which will be downscaled in the project to a spatial resolution of about 9 km for the Holocene. The European version of LPJ-GUESS, with main tree genera, should be used for the European simulations, the global version of the model for global model runs
- Compare the vegetation model outputs with pollen and charcoal records together with experts on such reconstructions
- Run LPJ-GUESS with latest climate model outputs for the Pliocene to estimate how the global vegetation might look like in a slightly warmer climate than today
- Further develop crucial components of the model or their parameterization based on the results from the model-data comparisons
- Publish results in scientific journals with highest scientific standards

## Your Profile

- PhD degree in Ecology, Environmental Modelling, Geography, Environmental Physics or related fields
- A strong interest in plant ecology, ecosystem research and climate change
- Strong Programming skills in C++, the language of the LPJ-GUESS code, or another fundamental programming language such as C or Fortran
- Strong expertise in data analyses and statistics
- Experience in ecological or environmental modelling
- Documented ability to publish scientific papers in international journals
- Research experience in interdisciplinary working environments is beneficial
- Excellent written and oral communication skills in English

## What We Offer

- Opportunity to work closely with leading experts in climate and Earth System Research as well as paleoenvironmental reconstructions.
- Access to an international network of scientists, policymakers, and research organizations.
- A dynamic work environment in Frankfurt, a diverse and vibrant city offering a high quality of life.
- Flexible working hours – mobile working options – Support with childcare or caring for family members (certified by the "audit berufundfamilie") – employee ID card with free admission to municipal museums – annual special payment – collectively agreed vacation entitlement – company pension plan (ZVK)

Senckenberg is committed to diversity. We benefit from the different expertise, perspectives and personalities of our staff and welcome every application from qualified candidates, irrespective of age, gender, ethnic or cultural origin, religion and ideology, sexual orientation and identity or disability. Applicants with a severe disability will be given special consideration in case of equal suitability. Senckenberg actively supports the compatibility of work and family and places great emphasis on an equal and inclusive work culture.

## How to apply?

Please send us your complete and comprehensive application documents combined in one pdf:

- A statement of interest outlining relevant expertise and motivation;
- A CV, including a complete publication list and details about your programming and modelling experience
- Scan copy of academic certificates and credentials;
- And contact details for two potential references.

electronically (as a single PDF file) **quoting reference #11-25019 by 4th of January 2026** to recruiting@senckenberg.de or apply directly on our website.

**Senckenberg Gesellschaft für Naturforschung**
**Senckenberganlage 25**
**60325 Frankfurt a.M.**
**E-Mail: recruiting@senckenberg.de**

Zertifikat seit 2012
audit berufundfamilie

For any job-related inquiries, Professor Dr. Thomas Hickler will be happy to assist you at thomas.hickler@senckenberg.de

For data protection information on the processing of personal data as part of the application and selection process, please refer to the privacy policy on our homepage at https://www.senckenberg.de/en/imprint/