

## Call for Proposals

No. 114

15 December 2021

### **Infrastructure Priority Programme “Exploratories for Large-Scale and Long-Term Functional Biodiversity Research” (SPP 1374)**

In the framework of the Infrastructure Priority Programme „Exploratories for Large-Scale and Long-Term Functional Biodiversity Research“ (SPP 1374), established in 2006, the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) invites the submission of research grant proposals.

Research in the Biodiversity Exploratories encompasses comparative, experimental and theoretical approaches, as well as scientific syntheses, addressing the following themes:

- relationships of land use and land-use intensity with all facets of biodiversity, from the genetic to the community level;
- consequences of changes in land use, land-use intensity and biodiversity for the functioning of ecosystems, communities, populations and for ecosystem services;
- the social-ecological context of the relations between land use, biodiversity and ecosystem services.

The first fifteen years of Biodiversity Exploratories research have contributed to an in-depth understanding of land use – biodiversity – ecosystem functioning relationships. It revealed strong effects of land-use intensity on many facets of biodiversity and ecosystem functioning in grasslands and forests and many similarities, but also pronounced differences, between study regions (see links below for further information).

A more mechanistic understanding of land use – biodiversity – ecosystem functioning relationships is an important ambition for the new phase. The common research design and joint efforts of all involved projects provided an unprecedented density of information, samples, data and time series, which is all available to create added value with further research. Moreover, joint multi-site experiments in grasslands and forests are available for work toward further mechanistic insights.

In addition to projects from the fields of the life sciences and natural sciences working on all aspects of the two first themes mentioned above, research is also welcome on the social-ecological context in which the relations between land use, biodiversity and ecosystem services are embedded. Such social-ecological research (e.g. on, but not limited to, social, economic, or governance aspects) should specifically address the context of the forest and grassland sites of the Biodiversity Exploratories.

This call is addressing research groups with expertise in the research areas described above. The DFG will fund empirical projects addressing these topics using comparative, experimental or social-ecological approaches. Projects using theoretical approaches and projects aiming to create added value by scientific synthesis of existing data and information are encouraged, too. All projects should clearly relate to and use existing Biodiversity Exploratories' data, and aim at conceptual, causal and mechanistic advances. All proposals, i.e. new proposals as well as renewal proposals for Biodiversity Exploratories projects, must clearly describe how they will contribute to a causal and mechanistic understanding of the studied processes, how the planned research fits to the Biodiversity Exploratories conceptually, uses the common design, and complements existing research.

To create added value, it is essential that all research projects make use of the common research design (see link to the research design below). This involves three study regions, the so-called Exploratories. In each Exploratory, 500 plots in forests and 500 plots in grasslands were initially surveyed, and their land use, soil, and vegetation were inventoried. Out of these 3,000 plots, 50 forest plots and 50 grassland plots were selected in each Exploratory (150 grassland plots and 150 forest plots overall) and established for intensive research. These so-called Experimental Plots represent the gradient of land-use intensities in the study regions. To contribute added value to the joint data base, all proposed research projects need to use all experimental plots in grasslands, or in forests, or both. For particularly labour-intensive investigations, the use of a predefined subset of plots (3 x 25 or 3 x 9 of the 150 grassland or forest plots; see website) may be planned. Proposed research may also make use of more than 300 of the initially inventoried 3,000 plots.

Large manipulative multi-plot experiments (called REX, LUX and FOX) set-up in 2020 are also available, both in forests and in grasslands, and are open for joint use by all new projects. The rationale and design of these new experiments is detailed on the website (see link to the design of REX, LUX and FOX below). As the control plots of REX, LUX and FOX coincide with subsets of the Experimental Plots, it is very well possible to work on the large experiments as well as on the Experimental Plots. However, if the workload of working on all Experimental Plots and working on one or several of the large experiments would become unfeasible, projects may also work on either the Experimental Plots or one or more of the large experiments REX, LUX and FOX.

Of course, further smaller-scale experiments are also welcome. These should be replicated in as many plots along the land-use intensity gradient as possible, to reveal how experimental treatment effects differ between regions and among sites of different land use and biodiversity.

Before writing a proposal, investigators should consult Fischer et al. (2010), *Basic and Applied Ecology*, 11: 473–485, for a detailed description of the rationale and the design of the Exploratories, and the Exploratories' website for further information (link see below). New projects are strongly encouraged to take advantage of the large amount of data collected in the Exploratories over the last fifteen years. These data are managed in the Biodiversity Exploratories Information System (BExIS). Many data sets are publicly available there. Moreover, upon registration at BExIS, the metadata of not yet public datasets can also be explored (see link to BExIS below).

The starting date proposed for all new projects is **1 March 2023**. The duration of the projects should be 36 months, and cannot exceed this period. To foster collaboration and synergy success-

ful applicants and their team members are expected to collaborate according to the rules of procedure of the Biodiversity Exploratories, to attend the annual assembly, and to actively participate in relevant workshops and thematic group discussions of the Biodiversity Exploratories.

We ask you to send a very short summary of the intended research (applicant(s), preliminary title, plus a maximum of 5 lines of text) no later than **10 February 2022** by email to the speaker and the scientific coordinator of the Biodiversity Exploratories (see contacts below). To allow for mutual information and coordination among applicants these short summaries will be compiled and, in one password-protected file, made available to all applicants named in these summaries.

On **23 February 2022**, there will be an **information event open to all potential applicants**. This event will take place from 2 pm to 4 pm as a video conference. To register for this event please send an email to the scientific coordinator (see contact below). Presentations on the rationale, design and research of the Biodiversity Exploratories will be followed by a discussion of open questions. A summary of important information points from this event will be available on the project website soon after the event.

Proposals must be written in English and submitted to the DFG by **27 April 2022**. Please note that proposals can only be submitted via elan, the DFG's electronic proposal processing system.

Applicants must be registered in elan prior to submitting a proposal to the DFG. If you have not yet registered, please note that you must do so by **6 April 2022** to submit a proposal under this call. You will normally receive confirmation of your registration by the next working day. Note that you will be asked to select the appropriate Priority Programme call during both the registration and the proposal process.

If you would like to submit a proposal for a new project within the existing Priority Programme, please go to Proposal Submission – New Project – Priority Programmes and select “SPP 1374” from the current list of calls. Previous applicants can submit a proposal for the renewal of an existing project under Proposal Submission – Proposal Overview/Renewal Proposal.

In preparing your proposal, please review the programme guidelines (form 50.05, section B) and follow the proposal preparation instructions (form 54.01). These forms can either be downloaded from our website or accessed through the elan portal. **Please note that there is a new application template compared to the last application phase. Applications based on the old template cannot be accepted.**

The review colloquium for the Priority Programme will be held from 27 to 30 June 2022, attendance of applicants is envisaged for the 29 June 2022.

### Further Information

Further information about research infrastructure and current activities in the Biodiversity Exploratories Schorfheide-Chorin, Hainich and Schwäbische Alb can be found at:

[www.biodiversity-exploratories.de/en](http://www.biodiversity-exploratories.de/en)

[www.biodiversity-exploratories.de/en/public-releases/publications](http://www.biodiversity-exploratories.de/en/public-releases/publications)

[www.biodiversity-exploratories.de/en/about-us/research-design/#section-comparative-approach](http://www.biodiversity-exploratories.de/en/about-us/research-design/#section-comparative-approach)

[www.biodiversity-exploratories.de/en/about-us/research-design/#section-large-scale-experiments#section-large-scale-experiments](http://www.biodiversity-exploratories.de/en/about-us/research-design/#section-large-scale-experiments#section-large-scale-experiments)  
[www.biodiversity-exploratories.de/wp-content/uploads/infrastructure-information-services-provided-by-core-projects.pdf](http://www.biodiversity-exploratories.de/wp-content/uploads/infrastructure-information-services-provided-by-core-projects.pdf)  
[www.bexis.uni-jena.de](http://www.bexis.uni-jena.de)

The elan system can be accessed at:  
<https://elan.dfg.de/en>

The **latest** DFG forms 50.05 and 54.01 can be downloaded at:  
[www.dfg.de/formulare/50\\_05](http://www.dfg.de/formulare/50_05)  
[www.dfg.de/formulare/54\\_01](http://www.dfg.de/formulare/54_01)

Questions with regard to scientific contents should be directed to the speaker and scientific coordinator of the Biodiversity Exploratories:

Prof. Dr. Markus Fischer, Universität Bern, [markus.fischer@ips.unibe.ch](mailto:markus.fischer@ips.unibe.ch)  
and

Dr. Victoria Griessmeier, Senckenberg Biodiversität und Klima Forschungszentrum Frankfurt,  
[victoria.griessmeier@senckenberg.de](mailto:victoria.griessmeier@senckenberg.de)

Questions on the DFG proposal process can be directed to:

Programme contact: Dr. Meike Teschke, phone +49 228 885-2336, [meike.teschke@dfg.de](mailto:meike.teschke@dfg.de)

Administrative contact: Tanja Zdebel, phone +49 228 885-3105, [tanja.zdebel@dfg.de](mailto:tanja.zdebel@dfg.de)