

The Biodiversity Exploratories: a Long-term and Large-scale Project for Functional Biodiversity Research

(Dr. Kirsten Reichel-Jung, University Ulm)

<http://www.biodiversity-exploratories.de>

Foto: Ilka May



ulm university universität
uulm



FUNDED BY

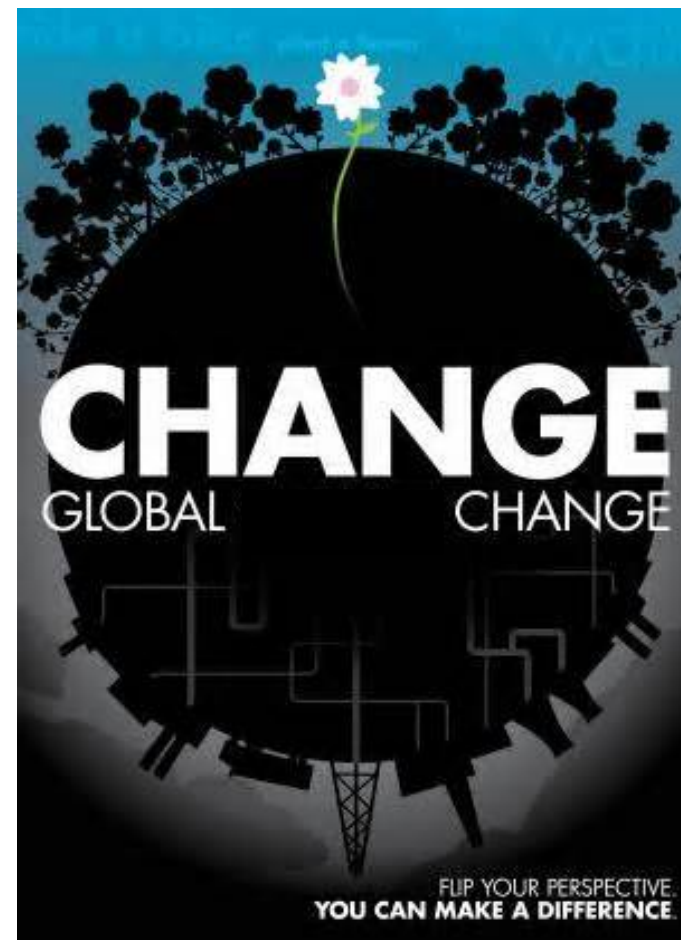
DFG

Globally, land use change and intensification is the greatest cause of biodiversity loss.

Sala et al. (2000)

Land use change is a non-linear, dynamic and transformative process, having multiple dimensions in space and time. Thus consequences of land-use change are hard to predict.

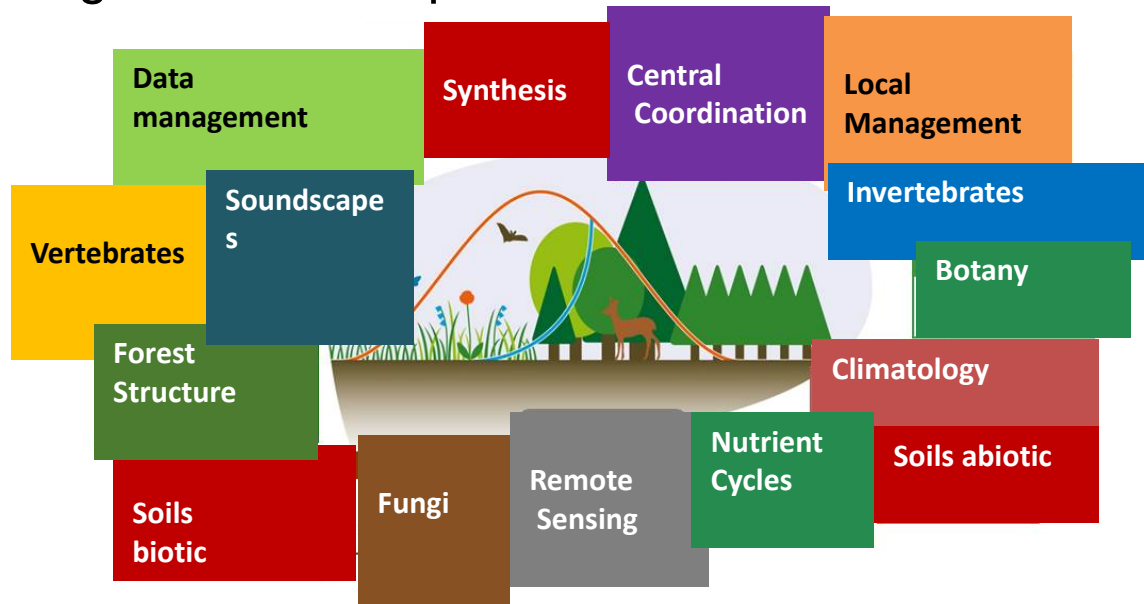
German National Committee on
Global Change Research
(NKGCF)2008



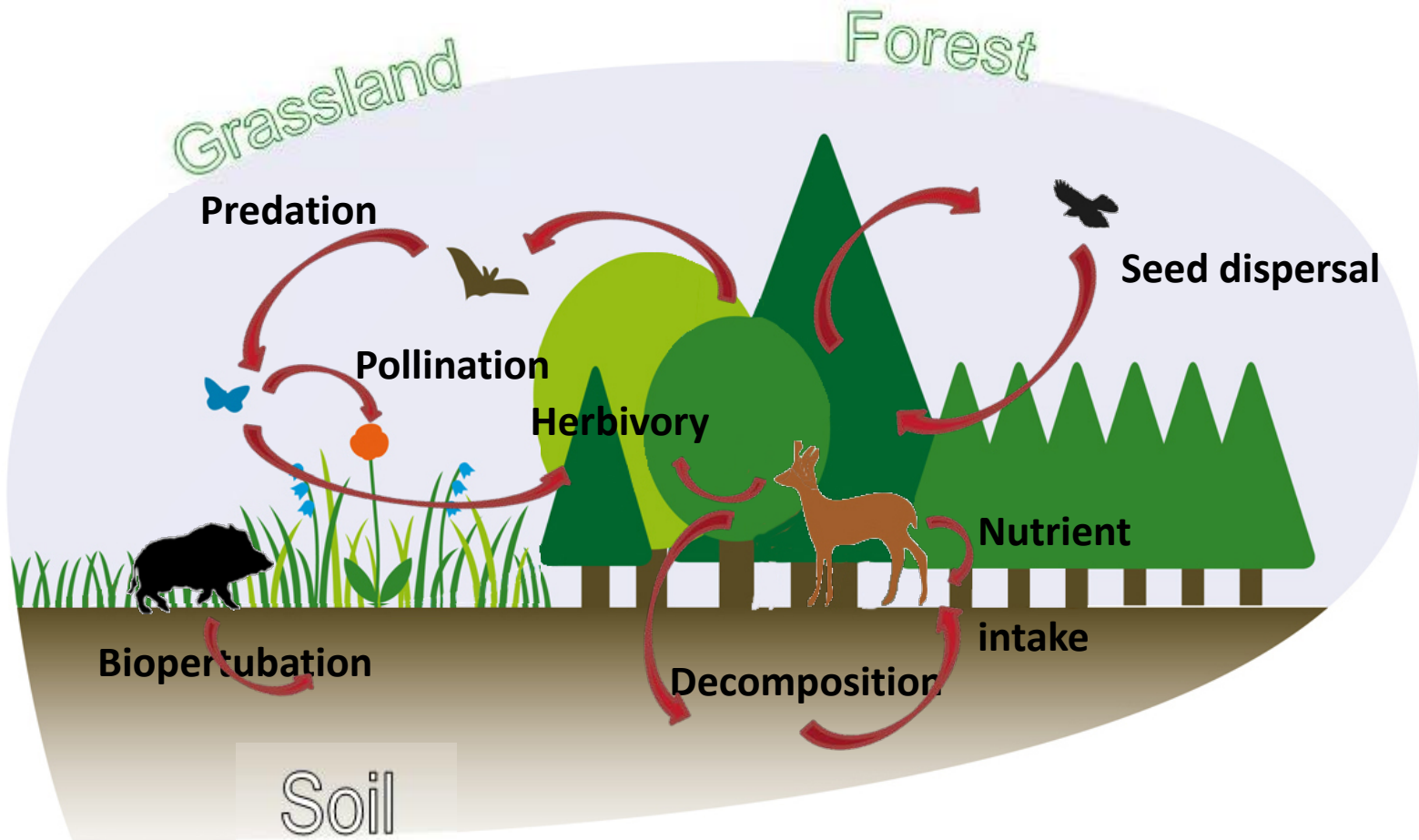
The Biodiversity Exploratories



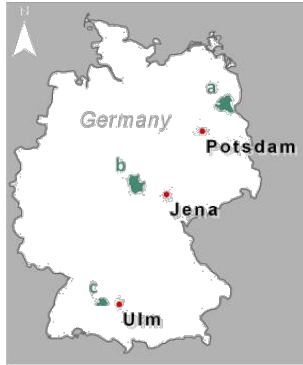
In the Biodiversits-Exploratories project scientists from various fields of biology are investigating the cause-and-effect relations of land-use on biodiversity, species interactions and resulting ecosystem services, both by monitoring as well as experiments.



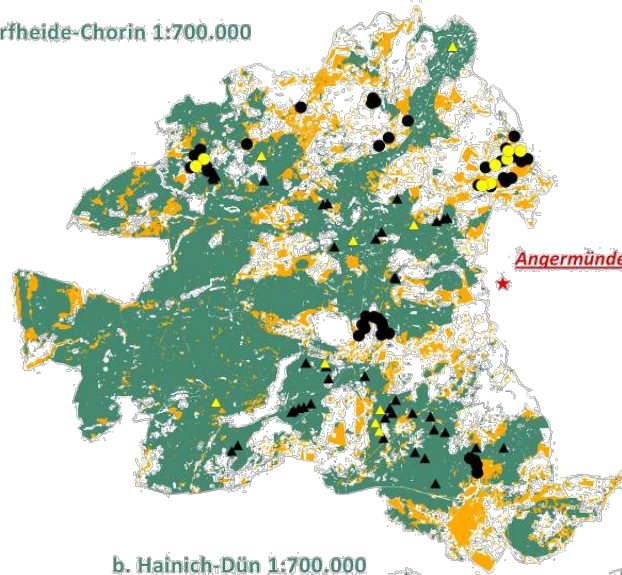
The Biodiversity Exploratories



Three research areas for functional biodiversity research in Germany



a. Schorfheide-Chorin 1:700,000



Legend

★ Field station

□ Area setting

■ Grassland

■ Forest

Plot types

Very Intensive Plots (VIP)

● VIP-Grassland

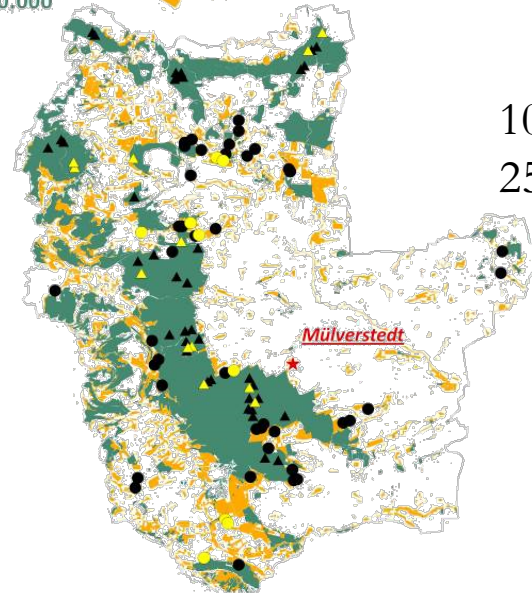
▲ VIP-Forest

Experimental Plots (EP)

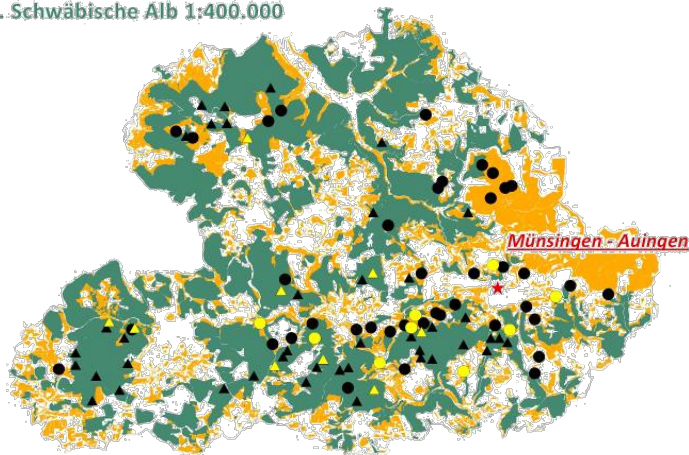
● EP-Grassland

▲ EP-Forest

b. Hainich-Dün 1:700,000

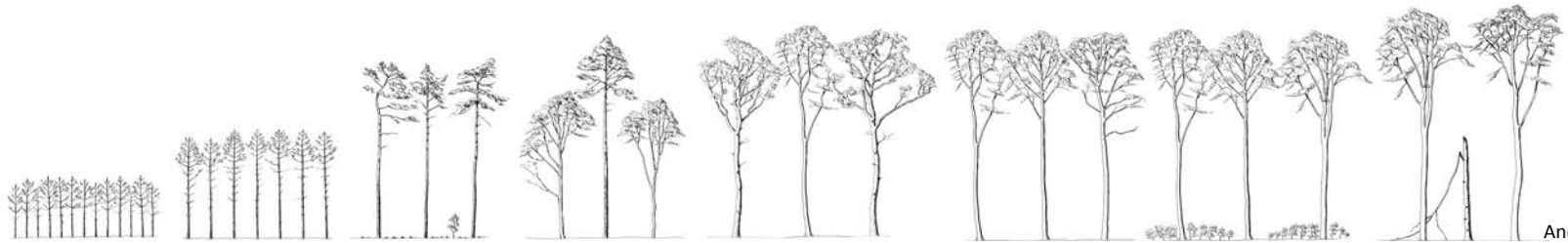


c. Schwäbische Alb 1:400,000

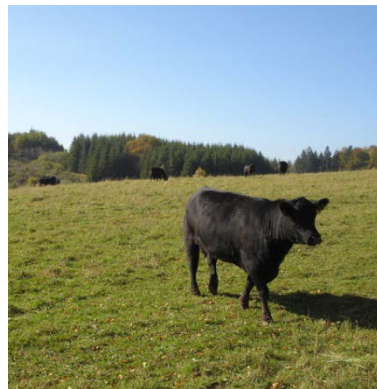


Each Exploratory
100 experimental sites
50 forest sites
50 grassland sites
10 very important plots (VIP)
25 middle intensive plots (MIP)

Research sites along a land use gradient



Land use intensity



Local management teams as main coordinators and collectors of Environmental variables



Climate stations
temperature, humidity

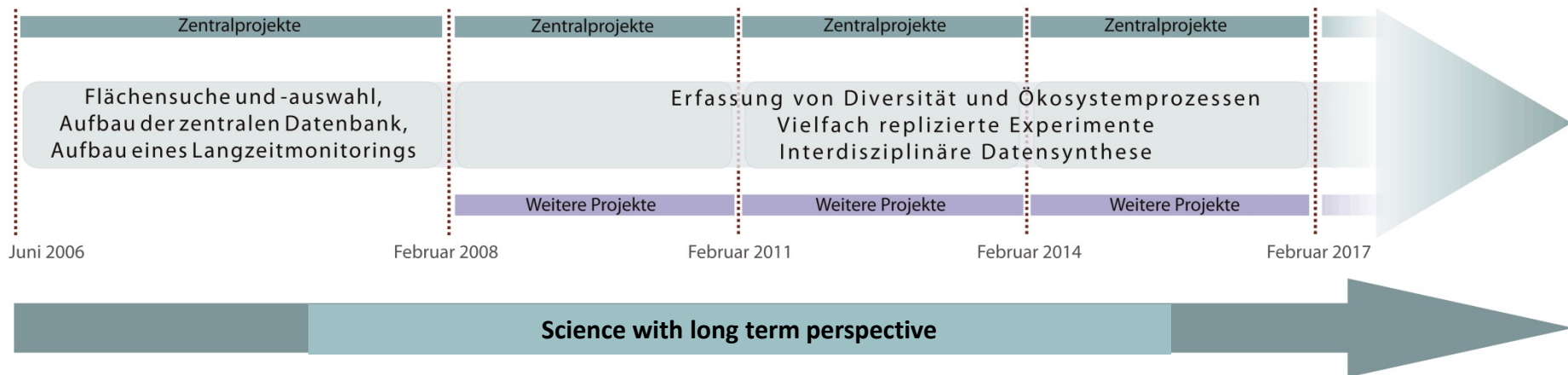
- wind speed and direction
- solar radiation
- precipitation



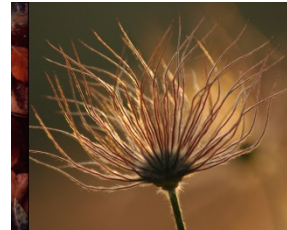
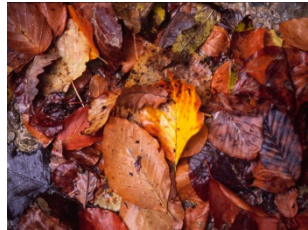
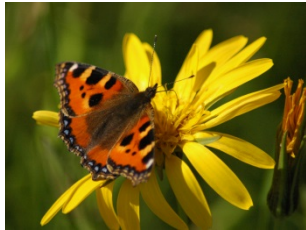
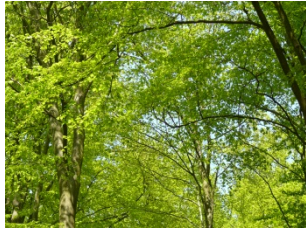
- land use (e.g., mowing, fertilization, grazing)
- tree harvesting (forests)
- dead wood

The Biodiversity Exploratories

- 2006:** granted by the German Science Foundation (DFG)
- 2007:** Implementation of the research areas („Exploratories“)
- 2008:** Implementation of 300 research sites and start of first projects



New phase of the project will start in March 2020 with potentially ~ 40 new projects



Thank you!

www.biodiversity-exploratories.de

<https://www.biodiversity-exploratories.de/1/open-positions/>

new funding period starting in March 2020