



NFDI4BioDiversity

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Biodiversity

- Diversity of
 - Species
 - Genomes
 - Functions
 - Interactions
 - Ecosystems

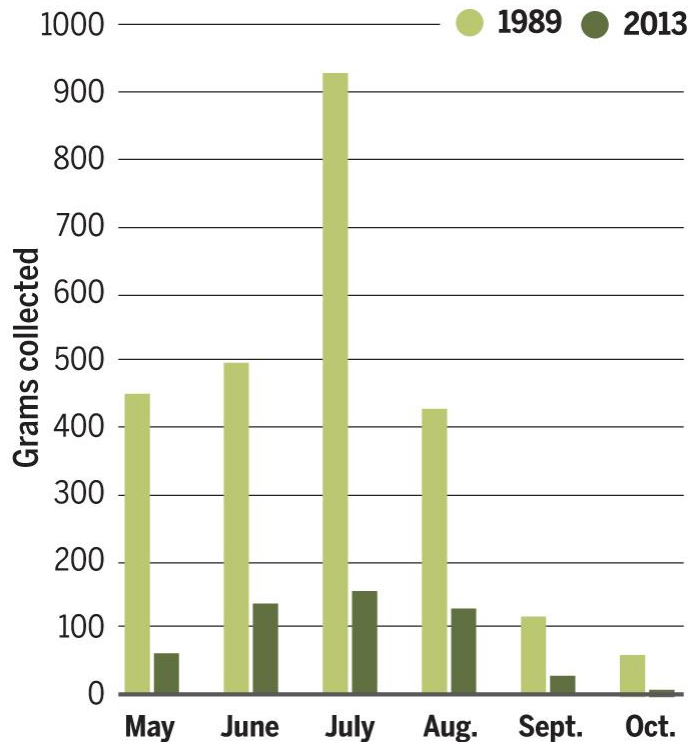


Image by C. Sardet

Where have all the insects gone?

Weighty disappearances

The mass of insects collected by monitoring traps in the Orbroicher Bruch nature reserve in northwest Germany dropped by 78% in 24 years.



Vogel 2017 Science, similar trends in more than 60 nature reserves in Germany (Hallmann et al. 2017 PLOS ONE)

Data is Needed...

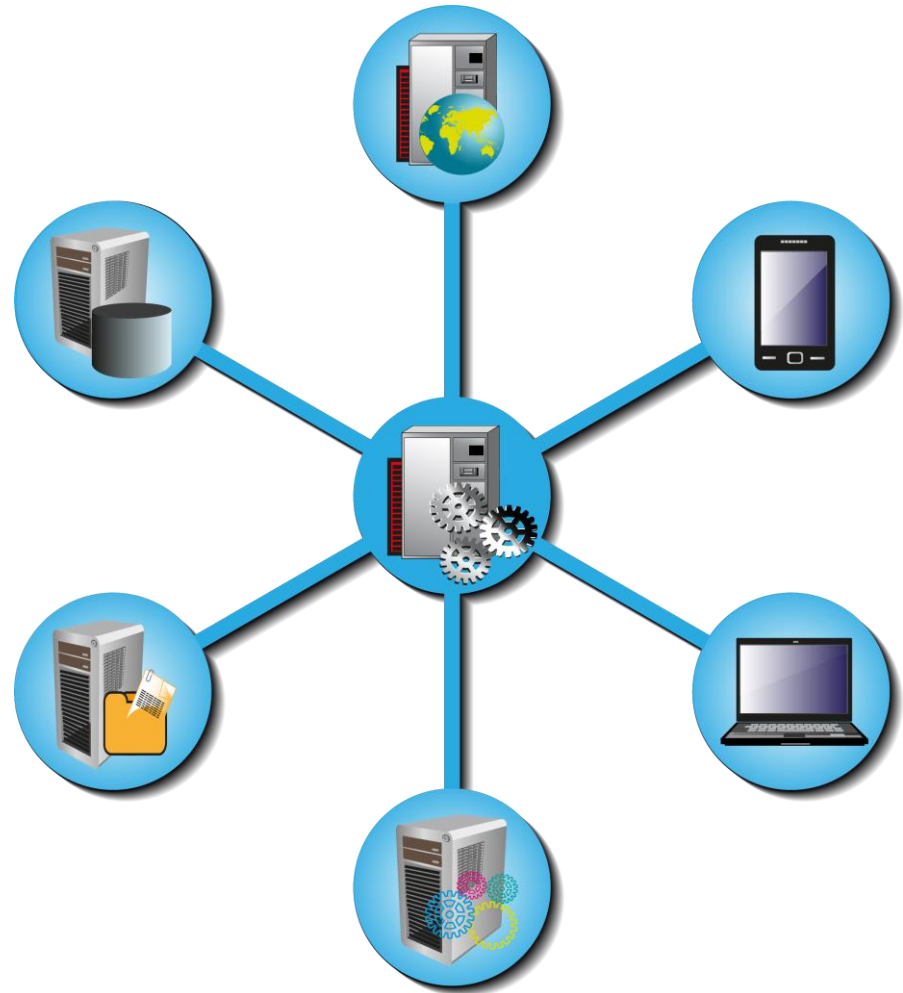
Diversity of Sources

- Spot measurements to Time series (days to decades)
- Local to Global data
- Observation data
- Experimental data
- Collected to Sensor data
- (Meta)data standards
- Vocabularies
- Taxonomy
- Molecular data
- Pictures
- Videos
- Sound files
- ...



Diversity of “Databases”

- Research projects
 - Lab book, Word, Excel, RDBMS
 - Harddisk, Dropbox, Clouds
- Repositories, Archives
 - Datagraves?
 - Long-term?
- Collections
- Authorities
- Non-Governmental Organisations (NGOs)
- Citizen Science
- Learned Societies
- ...



Summary

Current “data management”
does not match the scientific
needs of researchers, decision
makers and economy in the
digital age



Consolidation is Needed...

The German Federation for Biological Data

German Federation for Biological Data

www.gfbio.org

Sustainable, service oriented, national data infrastructure **facilitating data sharing** for **biological and environmental** research.

Established 2013

DFG Deutsche
Forschungsgemeinschaft

What is GFBio?



PLAN

Prepare a custom Data Management Plan (DMP).



SUBMIT

Submit your data to GFBio.



SEARCH

Search the GFBio data pool.



VISUALIZE & ANALYZE

Dynamically integrate, analyze and visualize GFBio datasets.



PUBLISH

Make your data citable.



TRAIN

Train your data management skills.



ARCHIVE

Deposit data and specimens in dedicated long-term archives.



ANNOTATE & CONNECT

Use the GFBio Terminology Service to describe your data and share terminologies with other researchers.

Transition



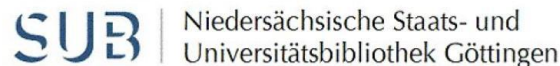
DFG funded “Research” project with 20 partners



Single legal entity, sustainable

GFBio e.V.

- Founded in May 2016 as a not-for-profit association
- Registered as a support association (Förderverein)
- Funded by DFG
- 29 members



Transition



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Single legal entity, sustainable



NFDI4BioDiversity

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- FAIR with emphasis on quality of data (instead of quantity)
- Expand our Community
 - Crop science – system plant
 - Farm animals – functional biodiversity
 - Systems Biology – model management
 - Citizen Science – monitoring
 - de.NBI network – catch the users by data analysis
- Pro-active user engagement at the universities/institutes
 - Front office/back office model
- Cross-community engagement to build ONE NFDI
 - NFDI4Earth, NFDI4Life, NFDI4Health, NFDI4Chem
 - Learned societies, authorities, organisations
 - GBIF, VBIO, GfÖ, GfBS, BfN, DZG, RDA, GoFAIR ...

Thank You

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