Germany
This report provides a series of summary charts, statistics and other details about the mobilization and use of open-access species data through the GBIF network, relating to users and participating institutions in Germany. These metrics show status at the time of report generation, unless otherwise noted. Taken together, the elements of this report can help guide and measure progress toward the information needs for biodiversity research, as well as for national commitments on biodiversity and sustainable development.

▶ Access and usage

Researchers from Germany contributed to 147 peer-reviewed articles citing GBIF use during 2023 and a total of 902 articles since 2008.

▶ Data availability in Germany

Animalia: 22,078,782 occurrences
Plantae: 31,440,471 occurrences
Fungi: 879,605 occurrences
Unknown: 268,475 occurrences
Protozoa: 32,733 occurrences
Bacteria: 797,759 occurrences
Virus: 14,298 occurrences
Chromista: 137,807 occurrences
Archaea: 7,805 occurrences

▶ Data mobilization

Institutions from Germany published -1,586,092 new occurrence records during 2023 out of a total of 355,993,458 occurrence records added globally to GBIF.org

Number of records published by institutions in Germany, categorized by kingdom.
Access and usage

Data downloads on GBIF.org from users in Germany

Users from Germany made 6,442 download requests representing 1.0% of all downloads during 2023.

Recent peer-reviewed articles using GBIF-mediated data by co-authors based in Germany

The GBIF Secretariat maintains and reports on an ongoing literature tracking programme, giving priority to substantive uses of GBIF-mediated data in peer-reviewed literature while identifying the countries or areas of the authors’ institutional affiliations. The citations below represent the five most recent journal articles with at least one co-author from Germany.

Those interested in assisting the Secretariat in identifying additional peer-reviewed uses of GBIF-mediated data may forward relevant citations to comms@gbif.org.

Lanuza, Collado, Sayol et al. (2023) Brain size predicts bees' tolerance to urban environments. *Biology Letters.*
https://doi.org/10.1098/rsbl.2023.0296

Lloyd, Leontyev, Moreno et al. (2023) Tasmaniomyxa umbilicata, a new genus and new species of myxomycete from Tasmania. *Mycologia.*
https://doi.org/10.1080/00275514.2023.2274252

Seah. (2023) Paying it forward: Crowdsourcing the harmonisation and linking of taxon names and biodiversity identifiers. *Biodiversity Data Journal.*
https://doi.org/10.3897/bdj.11.e114076

https://doi.org/10.3897/jhr.96.111550

Rashid, Wessely, Moser et al. (2023) Threatened European butterflies concentrate in areas of strong climatic change and atmospheric deposition pressure. *Biological Conservation.*
https://doi.org/10.1016/j.biocon.2023.110352

See all research from this country or area gbif.org/country/DE/publications/from
Data availability

Total data available for selected taxonomic groups in Germany

- **Mammals**: 472,829 occurrences
- **Birds**: 14,151,312 occurrences
- **Bony fish**: 283,980 occurrences
- **Amphibians**: 154,633 occurrences
- **Insects**: 5,668,258 occurrences
- **Reptiles**: 84,138 occurrences
- **Molluscs**: 279,467 occurrences
- **Arachnids**: 416,668 occurrences
- **Flowering plants**: 30,079,891 occurrences
- **Ferns**: 613,856 occurrences
- **Gymnosperms**: 368,735 occurrences
- **Mosses**: 208,499 occurrences
- **Sac fungi**: 373,650 occurrences
- **Basidiomycota**: 478,774 occurrences

**WHY MIGHT THE AMOUNT OF MOBILIZED DATA DECREASE?**

Datasets are sometimes removed by publishers, but more often decreases in the number of records are due to the removal of duplicate records and datasets.

**SPECIES COUNTS** represent the number of binomial scientific names for which GBIF has received data records, organized as far as possible using synonyms recorded in key databases like the Catalogue of Life.
Most recent datasets from publishers in Germany

Rodents composition of urban and forested areas in Potsdam, Germany. Published by Staatliche Naturwissenschaftliche Sammlungen Bayerns
https://doi.org/10.15468/ygzvjr

Neuropteren Deutschlands (Neuropterida of Germany). Published by Rote-Liste-Zentrum
https://doi.org/10.15468/rqkkkj

ZMH Ichthyology collection. Published by Leibniz Institute for the Analysis of Biodiversity Change (LiB)
https://doi.org/10.15468/q2sy3f

Taxon list of pest organisms for IPM at natural history collections compiled at the SNSB. Published by Staatliche Naturwissenschaftliche Sammlungen Bayerns
https://doi.org/10.15468/eanrzt

Biodiversity data of gravel pit lakes in Northern Germany. Published by BioFresh
https://doi.org/10.15468/snyq2x

Checklist of carnid flies from Germany (Diptera: Carnidae). Published by Leibniz Institute for the Analysis of Biodiversity Change (LiB)
https://doi.org/10.20363/cdg.carnidae.taxa-list.2023.iv.21

See all datasets from this country or area: gbif.org/dataset/search?publishing_country=DE

Newest publishers from Germany

Rote-Liste-Zentrum

Botanischer Garten, TU Dresden

German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Independent Institute for environmental issues UfU e.V.

Herbarium Haussknecht

See all publishers from this country or area gbif.org/publisher/search?country=DE

Occurrence records downloaded from GBIF.org, published by institutions in Germany

Number of occurrence records downloaded via GBIF.org published by institutions in Germany
Data mobilization
Data sharing with country or area of origin by national institutions in Germany

The chart above shows the number of records shared over time by publishers within Germany, with separate colours for records about species occurring within undefined and those occurring elsewhere.

Top data contributors about biodiversity in Germany

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country or area</th>
<th>No. of occurrences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Germany</td>
<td>46,069,198</td>
</tr>
<tr>
<td>2</td>
<td>Netherlands</td>
<td>3,177,253</td>
</tr>
<tr>
<td>3</td>
<td>United States of America</td>
<td>1,967,381</td>
</tr>
<tr>
<td>4</td>
<td>France</td>
<td>1,853,213</td>
</tr>
<tr>
<td>5</td>
<td>United Kingdom</td>
<td>1,029,465</td>
</tr>
<tr>
<td>6</td>
<td>Belgium</td>
<td>499,597</td>
</tr>
<tr>
<td>7</td>
<td>International organization or unknown country</td>
<td>253,872</td>
</tr>
<tr>
<td>8</td>
<td>Switzerland</td>
<td>170,466</td>
</tr>
<tr>
<td>9</td>
<td>Estonia</td>
<td>117,084</td>
</tr>
<tr>
<td>10</td>
<td>Austria</td>
<td>106,764</td>
</tr>
</tbody>
</table>

Table 1. Ranking of countries or areas contributing data about Germany

Top datasets contributing data about Germany

- Naturgucker. 12,980,402 occurrences in Germany. (Last updated 18 Aug 2016)
- Flora von Deutschland (Phanerogamen). 9,283,055 occurrences in Germany. (Last updated 9 Aug 2021)
- Floristic records from survey studies of the Bayerisches Landesamt für Umwelt. 7,549,012 occurrences in Germany. (Last updated 21 Dec 2023)
- Occurrence Data of Vascular Plants collected or compiled for the Flora of Bavaria. 7,200,169 occurrences in Germany. (Last updated 16 Mar 2021)
- EOD – eBird Observation Dataset. 3,851,257 occurrences in Germany. (Last updated 20 Aug 2023)

See all contributing countries and areas or datasets: gbif.org/country/DE/about
Germany participates in the following projects coordinated by GBIF

International Living Atlases workshop
*Capacity Enhancement Support Programme, 2017–2018*
This project will support and strengthen the growing international community of practice around open-source software developed by the Atlas of Living Australia.
https://www.gbif.org/project/83337

European training hackathon on species checklists using GBIF data
*Capacity Enhancement Support Programme, 2014–2015*
This regional collaboration supports a hackathon for European nodes, aiming to enhance their capacity to produce national checklists.
https://www.gbif.org/project/82221