

SMNS – State Museum of Natural History Stuttgart

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About the Institution

The [State Museum of Natural History Stuttgart](#) is one of two State museums in Baden-Württemberg, southern Germany. With its important zoological, paleontological and mineralogical collections and herbarium containing more than 11 million specimens (fossils, minerals, plants, insects, molluscs, and vertebrates) the museum does possess an excellent foundation for biosystematic research. Due to its diverse international scientific contacts and relations, the natural history museum significantly contributes to the identity of the State Baden-Württemberg.

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About the Data Center

Research at the SMNS is based on our scientific collections of fossils, plants, insects, molluscs and vertebrates. Taxonomic research, through which organisms are identified, described, named and classified, is a central element of our daily work. The SMNS has a strong interest in collection and observational data as well as in genomic research data.

Data archiving for research projects focusing on botanical, zoological and paleontological data:

- Collection data, together with the deposit of physical objects, referenced multimedia objects.
- Observation and occurrence data, species monitoring projects, referenced multimedia objects.
- Taxon reference list data and checklist data.



[Contact SMNS at NFDI4Biodiversity](#)

Data Center Profile

Name	SMNS – State Museum of Natural History Stuttgart
URL	https://www.naturkundemuseum-bw.de/

Description	The SMNS used the inventory and information system IMDAS (Integrated Museum Documentation and Administration System) to manage its collections, as it was designated by the State Baden-Württemberg in 1999/2000 for all State collections. The information system SYNTAX was used as a data portal for GBIF, when the SMNS was one of the former six GBIF nodes. As BiNHum (Biodiversity Network of the Humboldt-Ring, which is coordinated by SMNS) and GFBio started, the Diversity Workbench (DWB) was introduced at SMNS and has replaced IMDAS in 2015. The DWB is the core system for the GFBio Data Center SMNS. Scientific data curation services (incl. taxonomic services) The taxonomic expertise and interest is that of the SMNS (see https://www.naturkundemuseum-bw.de/en/research). Research at the SMNS is based on our scientific collections of fossils, plants, insects, molluscs and vertebrates. Taxonomic research, through which organisms are identified, described, named and classified, is a central element of our daily work. Our research is outlined by the following frame topics: Biosystematics and taxonomy: Discovery, registration, description, and classification of organisms. Research on evolution and phylogenetics: Origin, modification, and phylogeny of organisms. (Palaeo-)biogeography and stratigraphy: Analysis of the patterns of distribution of organisms in space and time. Ecology and ecosystem research: Analysis and comprehension of habitats and biocoenoses. Biodiversity-Informatics: digital availability, integration and computational analysis of basic scientific data about the diversity of life. Applied research: accumulation of basic knowledge for problem solving, support for the utilisation of scientific data, and implementation of results The SMNS has a special interest in (meta-)data related to its taxonomic and other focussed research areas like the botanical field mapping of Baden-Württemberg and Germany but also in molecular data.									
Data domains (scope)	The SMNS has a strong interest in collection and observational data as well as in genomic research data.									
Target group										
Service Description	Data archiving for research projects focusing on botanical, zoological and paleontological data. The data archiving includes management processes with Diversity Workbench (DWB) databases. The data publication is done via the DWB network at the SMNS (SMNS - extended profile). <table><tr><td>Type 1a</td><td>Collection data, together with the deposit of physical objects, referenced multimedia objects.</td></tr><tr><td>Type 1b</td><td>Observation and occurrence data, species monitoring projects, referenced multimedia objects.</td></tr><tr><td>Type 2</td><td>Taxon reference list data and checklist data.</td></tr></table> IT services <u>Data submission and accession</u> • ImportWizard for DiversityCollection • DWB data replication (exports) to ABCD(EFG)-structured xml files for portals like GFBio, GBIF and GeoCase • Recorder software 6 D for central data entry of floristic data, subsequent data processing for botanical field mapping and provision of the field mapping portal (migration to a new system is planned for the near future). <u>Data integration and management</u> • Services done with DWB databases and repositories (12 databases) • Several DWB SQL database installations; remote data management by researchers possible; various types of user interfaces and rich clients • Installation for open data and general access of taxon names and terms (=TNT) through either DWB networks "cloud" or web services • Repositories for multimedia data and original raw data files (contextual data management in DWB) <u>Data backup and archiving</u> • Backup and archiving facilities for data and multimedia files <u>Data publication</u> • Services for user-guided export of data, provided by DWB export wizards • Data provider for GeoCase, BioCase, GeoRef, GBIF • Services provided by BioCASE Provider Software (BPS) installations at SMNS; e. g., export in various content standards • Stable Specimen Identifier (GUIDs) Portal <u>User services</u> • DWB Workshops in cooperation with SNSB				Type 1a	Collection data, together with the deposit of physical objects, referenced multimedia objects.	Type 1b	Observation and occurrence data, species monitoring projects, referenced multimedia objects.	Type 2	Taxon reference list data and checklist data.
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Service Levels	Data Set x	Data Package x	Data management x	Research Objects x						
Data Formats										
Data Submission Formats	Data	(a) Export files from external installations of DiversityCollection, DiversityTaxonNames (b) any spreadsheets (CSV, excel-files), structured according existing DWB import schemes (see SMNS GitHub , SNSB GitHub and ZFMK GitHub) (c) spreadsheets and databases appropriate to create new DWB import schemes); Image formats have to be agreed for submission Example templates for data submission can be found in the GFBio collection of recommended data submission templates								
	Metadata	EML, ABCD								
Data Accessibility	Public access points	GFBio , BioCASE Data Access Services at the SMNS , BioCASE , GBIF , DTN Taxon List Services and others								

	Standardised exchange formats	XML-files in ABCD, LIDO, EML standard; Web services of the DWB platform
	Data formats	Text, CSV, XML; Agreed image data formats
	Long-term availability	Unlimited (minimum guaranteed time period of 10 years)
Data Publication Services	Data Citation	Yes (DOI and citation for each individual data set)
	DOI	via GBIF publication via ZB MED/DataCite publication
Archiving (RAW-data ingest, data, media)		
Licenses / Terms of Use	Metadata	
	Data	
Documentation		
Computing center, external service provider name of the associated computing center (s), (commercial) service provider(s) and services provided		
Backup		

Your contact persons at SMNS

Data curator

- [Carlos Monje](#)

Technical contact

- [Wiebke Walbaum](#)

NFDI contact persons

- [Joachim Holstein](#), [Carlos Monje](#)



Do you have questions, feedback or need help?

[Contact our Helpdesk](#) for direct support.

