

## ***Swiss Natural History Collections Network - SwissCollNet<sup>1</sup>***

### **Harnessing the potential of natural history collections for tomorrow's research**

More than 60 million specimens are housed in natural history collections in the museums, universities and botanical gardens of Switzerland. Together, these collections form an entity whose scientific value is incomparable, based on the local, linguistic, historical and cultural richness of Switzerland. The collections may originate from Switzerland, providing a record through time and space, of the minerals, rocks and living organisms found in the county, or from all around the globe, based on the connections and historical activities of the institutions themselves. Swiss collections thus have international recognition for their contribution to scientific research. The *Swiss Natural History Collections Network* aims to unite Swiss natural history collections under a common vision, with a common strategy to promote the collections themselves and to harness the scientific and educational potential of these collections for science and society.

The goals of the initiative are:

- To develop a long-term Natural History Collections Strategy that includes collection management and the securing of funding for maintaining and developing them further.
- To digitise, mobilise and publish specimen information as part of a de-centralised research infrastructure for Swiss natural history collections that will lead to the creation of a virtual Swiss natural history museum and collaborative research platform.
- To promote the scientific and educational use of Swiss natural history collections nationally and internationally via the development of a Natural History Collections Research Agenda, as well as to encourage the training needed for the array of taxonomic or technical jobs related to natural history collections.
- To integrate the scientifically valuable natural history collections, via the research infrastructure for Swiss natural history collections, into international efforts to mobilize biodiversity and geodiversity data in a coordinated way to benefit Swiss research.

With its large network of experts and coordinating competences The Swiss Academy of Sciences (SCNAT), in collaboration with musnatcoll (Verband der naturwissenschaftlichen Museen und Sammlungen der Schweiz und Liechtenstein), the Swiss Systematics Society, GBIF.ch and Info Species, forms a competent body to develop and oversee a national initiative for natural history collections in Switzerland (*Swiss Natural History Collections Network*).

The initiative will be divided into 3 phases:

- a) **A preparatory phase** (2018-2020), where regional investment plans for infrastructure building will be made. A shared approach will be developed to ensure open access to collections and specimen data. Shared common practices will be put in place to facilitate full integration of and interoperability between institutions. The long-term goal will be to reach international compatibility and proof of connection / integration into international initiatives to benefit Swiss research. Furthermore, a joint research agenda will be developed including research, innovation, education and training, data policy harmonisation and consolidation programmes.

- b) **A construction/integration phase** (2021-2024), where natural history collections will be supported in the integration of specimens into their collections, the determination, re-determination or revision of specimens, and the digitisation / imaging of specimens. Priorities will be set, based on a national inventory of natural history collections that has been conducted by GBIF.ch. Furthermore, training for technical skills in collections management will be developed. The continuing education for professionals and academics in taxonomy will be enhanced through work with the collections themselves as well as via the increased accessibility of data that will be promoted by this joint and collaborative approach.
- c) **An operational phase** (2025-2028), where natural history collections in Switzerland will be recognised as a national research infrastructure with a consolidated research agenda. A training network for collections and collections staff will be created. Participation in European initiatives will be established. One of the priorities during this phase is the integration of Switzerland in the ESFRI Distributed System of Scientific Collections initiative (DiSSCo), a pan-European collaborative approach which aims at uniting European natural history collections in an integrated European infrastructure which unifies access to information, provides new linked data associated with collections, promotes scientific research, and drives policy and process harmonization.

The overall *Swiss Natural History Collections Network* initiative, with the associated development of a national natural history collections strategy and natural history collections research agenda, will:

- promote the management and curation of collections in Swiss institutions;
- unify physical and virtual access to biodiversity and geodiversity information;
- provide new, linked and open access to data associated with collections;
- create a platform to encourage and support the scientific use of natural history collections.

The development of an agreed strategy and research priorities on a national scale will allow fluent, fluid and permanent collaboration across all Swiss natural history collections by promoting interoperability and unified access to collections as well as creating opportunities for scientific collaboration and innovation. This national approach will create an internationally compatible research infrastructure, while respecting and integrating regional and decentralized conditions and requirements, thus maximizing the impact for science, policy and society.

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