Consortium of European Taxonomic Facilities

VIENNA STATEMENT

ON THE IMPORTANCE OF RESEARCH IN NATURAL HISTORY COLLECTIONS

29 NOVEMBER 2023

CETAF
CONSORTIUM OF EUROPEAN TAXONOMIC FACILITIES



ONECOMMUNITY25+COUNTRIES75+INSTITUTIONS5000+SCIENTISTS1.5BILLIONSPECIMENS

Signatories

AUSTRIA
Biology Centre of Upper Austria State Museums
Natural History Museum Vienna

BELGIUM
Meise Botanic Garden
Royal Belgian Institute of Natural Sciences
Royal Museum for Central Africa

BULGARIA
Bulgarian Consortium: Bulgarian Academy of Sciences,
Institute of Biodiversity and Ecosystem Research
Bulgarian Consortium: National Museum of Natural History

CZECH REPUBLIC
Czech Consortium: Faculty of Science, Charles University in Prague
Czech Consortium: Institute of Botany, The Czech Academy of Sciences
Czech Consortium: National Museum, Prague

DENMARK
Natural History Museum of Denmark

ESTONIA
Estonian Consortium: Estonian Museum of Natural History
Estonian Consortium: Estonian University of Life Sciences
Estonian Consortium: Tallinn University of Technology
Estonian Consortium: University of Tartu Natural
History Museum and Botanical Garden

FINLAND
Finnish Museum of Natural History – LUOMUS

FRANCE
National Museum of Natural History

GERMANY
Bavarian Natural History Collections
Natural History Museum Berlin
Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin
Senckenberg Society for Nature Research
Stuttgart State Museum of Natural History
NORe Consortium: Haus der Natur - Cismar
NORe Consortium: LIB Leibniz Institute for Analysis of Biodiversity Change
NORe Consortium: German Oceanographic Museum Stralsund
NORe Consortium: Müritzeum
NORe Consortium: Museum of Nature and Environment Lübeck
NORe Consortium: Natural History Museum Namu Bielefeld
NORe Consortium: State Museum of Natural History Braunschweig
NORe Consortium: State Museum Nature and Man Oldenburg
NORe Consortium: Übersee – Museum of Bremen
NORe Consortium: Zoological Collection of the University of Rostock
NORe Consortium: Zoological Institute and Museum Greifswald
NORe Consortium: Zoological Museum Kiel

GREECE
Natural History Museum - University of Crete, Greece

HUNGARY
Hungarian Natural History Museum

ICELAND
Natural Science Museum of Iceland

ISRAEL
The Hebrew University of Jerusalem, National Natural History Collections
The Steinhardt Museum of Natural History, Israel

ITALY
Italian Consortium: Natural History Museum, University of Florence
Italian Consortium: Natural History Museum of Genova
Museum and Botanical Garden of the University of Pisa

LUXEMBOURG
Natural History Museum of Luxembourg

NETHERLANDS
Naturalis Biodiversity Center

NORWAY
Natural History Museum - University of Oslo

POLAND
Museum and Institute of Zoology - Polish Academy of Sciences

SLOVAKIA
Slovakian Consortium: Comenius University- Faculty of Natural
Sciences - Botany & Zoology
Slovakian Consortium: Pavol Jozef Šafárik, University in Košice - Faculty of Science
Slovakian Consortium: Plant Science and Biodiversity Centre,
Slovak Academy of Sciences, Institute of Botany
Slovakian Consortium: Slovak Academy of Sciences - Institute of Zoology
Slovakian Consortium: Slovak National Museum-Museum of
National History

SPAIN
CSIC. National Museum of Natural Sciences
CSIC. Royal Botanic Garden of Madrid

SWEDEN
Swedish Museum of Natural History
Gothenburg Consortium: Department of Biology and Environmental
Sciences, Gothenburg University
Gothenburg Consortium: Gothenburg Botanic Garden
Gothenburg Consortium: Gothenburg Natural History Museum

SWITZERLAND
Geneva Consortium: Conservatory and Botanical Gardens of Geneva
Geneva Consortium: Natural History Museum of Geneva
Natural History Museum of Bern

UNITED KINGDOM
Bristol Museum & Art Gallery
London Natural History Museum
Manchester Museum- The University of Manchester
Natural History | National Museum Wales
British Geological Survey | National Geological Repository
National Museums Liverpool
National Museums NI
National Museums Scotland
NHM Oxford University
Royal Botanic Garden Edinburgh
Royal Botanic Gardens, Kew
The Hunterian – University of Glasgow

DRAFTED BY *the CETAF Executive Committee: Michelle Price, Ana Casino, Eva Häffner, Gila Kahila Bar-Gal, Gergely Babocsay and Erik Smets*

The **CETAF community**, with 44 members from 25 European countries and Associated states that represent 77 natural history institutions, manages over 1.5 billion natural history specimens. This long-standing association embodies a distributed network of scientific facilities that encompass the geological and biological collections held in natural history museums, science centres and botanical gardens as well as their associated research scientists and research infrastructures. CETAF forms a cohesive and well-structured research community and provides an essential platform for exchange, collaboration and the development of joint initiatives in the natural sciences.

Natural history collections – a scientific asset that has been developed over the last 350 years – are an unparalleled source of diverse types of data on species, the evolution of life on Earth and the geological processes at work over deep time. The analysis, interpretation and synthesis of the scientific data contained in the diverse objects in natural history collections, and the transmission of scientific knowledge derived from research conducted on them, are core activities of natural history institutions and other research institutes that focus on **understanding biodiversity and geodiversity**. Unlocking data on biological and geological entities, the interpretation of the data derived from them, the creation of biodiversity and geodiversity knowledge and ensuring its equitable accessibility are essential components for our understanding of biological species, communities and habitats, in an evolutionary context, and on the geological entities and processes that have contributed to shaping our planet. Scientific discovery and innovation in the domains of biodiversity and geodiversity science are inseparable from natural history specimens, research infrastructures and the competencies of the institutions that house them.

Our community is well-positioned to develop the **CETAF Research Agenda for Biodiversity and Geodiversity Sciences in Europe** (CETAF RA) as an outcome of the CETAF Strategy and Strategic Development Plan 2015-2025. It will represent the vision of experts in the biodiversity and geodiversity sciences on the questions we need to target in order to understand the Earth and the past, present and future biological life on it as well as those that are pertinent at the European level. The questions raised by the community will be addressed with scientific excellence with the aim of strengthening the European Research Area (ERA). Our endeavours are built on top of a long history of effective and efficient cooperation and collaboration that has been created within CETAF that reaches across borders and disciplines. CETAF RA activities are to be based on FAIR data and metadata principles, anchored in the mobility criteria that ensure skill and knowledge transfer, sharing and enhancement, and based on the adoption and implementation of common standards, best practices and guidelines that have been produced by CETAF as a community resource. These actions and resources ensure that understandable, reliable biodiversity and geodiversity knowledge is made available to a wide range of potential users, from professionals to policymakers and scientists to citizens, in a format that is both understandable and reproducible.

The CETAF RA provides **opportunities for the community to promote, coordinate and undertake research on natural history specimens** with the aim of contributing to the European Union's drive to promote scientific excellence, supporting its position as a world leader in science. The CETAF RA includes three key pillars, based on CETAF and its membership, of expertise, research facilities and data. These pillars contribute to the accomplishment of the ERA objectives of collaboration, innovation, and knowledge exchange across Europe. **Ten drivers for action** have been identified to be supported and implemented by 2030 through an array of activities undertaken by the CETAF community, based on FAIR data and metadata principles and scientific excellence. Jointly, outcomes will raise acknowledgement of the relevance of the natural history collections within Europe for research as well as their contribution to scientific advancement in the natural history sciences. More globally, research conducted in natural history institutions will have an **impact on societal challenges** and sustainability goals by unlocking the critical information needed to make informed decisions.

1. Integrate taxonomic knowledge into the **policy-science dialogue** in Europe to enable informed decision-making in the realms of biodiversity and geodiversity.

2. Enhance training and **capacity building in the natural sciences** through the maintenance and development of Europe's premier training platform, the CETAF Distributed European School for Taxonomy (DEST)

3. Accelerate **species discovery** and enable adequate monitoring and modelling of biodiversity across Europe through the support of taxonomy initiatives and funding mechanisms.

4. Increase **research capacity** in Europe to provide sustainable expertise in support of biodiversity and geodiversity research.

5. Promote **interdisciplinarity and integrative approaches** to improving the use of taxonomic information and knowledge, in an evolutionary or geological context, in related scientific fields.

6. Combat biodiversity and geodiversity **awareness disparity** through coordinated outreach activities, education programmes, exhibitions and social media campaigns.

7. Promote and channel the **integration** of specimen data and associated metadata into a harmonised system and distributed infrastructure.

8. Accelerate the study of the **evolution of European biodiversity** in order to predict the future impacts of human activities and climate change on species and ecosystems.

9. Explore opportunities with the **private sector** to identify potential innovation niches, focusing on sustainable technologies to reduce the negative impacts of human activities on biodiversity and geodiversity.

10. Implement **responsible research** principles and promote equality in research and research opportunities.

CETAF's active engagement at the science-policy interface and its provision of reliable and trusted information in the natural history domain to the user community provides a solid foundation for decision-making that in turn supports the transformative change needed to fulfil the Kunming-Montreal Global Biodiversity Framework (GBF) that was adopted at the 15th Conference of Parties to the United Nations Convention on Biological Diversity (CBD) in December 2022.

CETAF54, Vienna, AT, 29 November 2023

... hitting the GBF Targets for 2030...			The CETAF Research Agenda Actions are...									
			A1 Decision-making	A2 Training	A3 Species Discovery	A4 Taxonomic Expertise	A5 Interdisciplinarity	A6 Literacy	A7 Integration	A8 Evolution	A9 Industry	A10 Responsible Industry
Reduction of Biodiversity threats	1	Biodiversity Loss										
	2	Restoration										
	3	Management										
	4	Extinction										
	5	Wild species										
	6	IAS										
	7	Pollution										
	8	Climate Change										
Sustainable use and benefit-sharing	9	Environmental Impact										
	10	Sustainable&Friendly										
	11	Nature Contributions										
	12	Urbanization										
	13	ABS BPs										
Tools and solutions for implementation and streaming	14	Values and policies										
	15	Business										
	16	Consumpion										
	17	Biotechnology										
	18	Financial Measures										
	19	Resources										
	20	Capacity building										
	21	Data provisions & access										
	22	Responsible & participatory										
	23	Gender & Diversity										
		Contribution to Targets	1	6	4	6	4	3	1	2	1	3

... and moving forward towards the GBF 2050 goals

GOAL A Integrity, connectivity and resilience of ecosystems

GOAL B Sustainable use and management of biodiversity

GOAL C Fair and equitable benefit share from GR and DSI

GOAL D Secure and equitable accessible means of implementation

The CETAF Research Agenda for Biodiversity and Geodiversity Sciences in Europe will contribute to the achievement of 18 out of the 23 Global Biodiversity Framework targets by 2030, and more broadly to the recognition and accomplishment of the overarching four GBF goals for 2050



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