

# Advancing the Catalogue of the World's Natural History Collections

*An international low-carbon consultation for SYNTHESYS+*

Preparatory webinars - Thursday, 12 March 2020, 06:00 UTC / Session #2 Friday, 13 March 2020, 15:00 UTC



Specimen detail, Trinidad National Herbarium. [Photo](#) 2019 by Maheva Bagard Laursen | GBIF, licensed under [CC BY 2.0](#).



alliance for biodiversity knowledge



# Agenda for webinar

- Welcome
  - Does anyone object to us recording the webinar?
- Presentation
  - Goals for consultation
  - Process
  - Topics (from Ideas Paper)
- Issues and gaps
  - Should we add any extra topics?
  - Are there suggestions for ways to improve the process?
- Contributing to the consultation process
  - Submit documents (or slide sets, videos, etc.)
  - Assist with translation of selected materials
  - Publicise the consultation through relevant networks
- Summary of action points

## Consultation Coordination Team

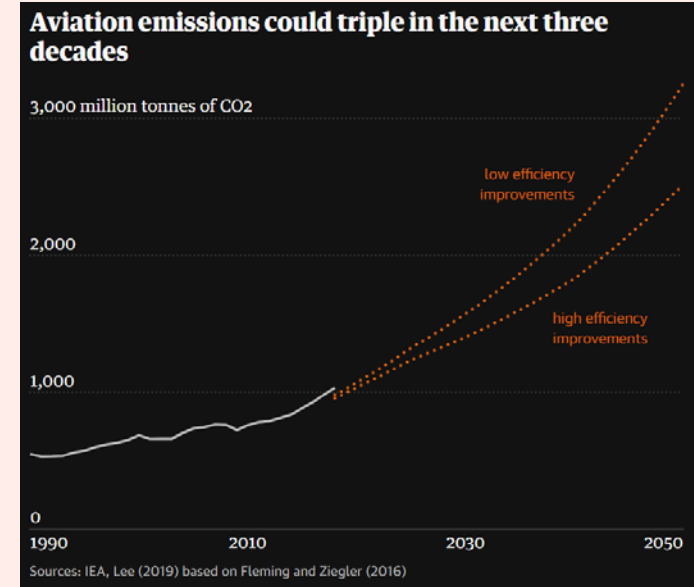
- **Donald Hobern**, Catalogue of Life | International Barcode of Life
- **Alex Asase**, University of Ghana | GBIF Ghana
- **Quentin Groom**, Meise Botanic Garden
- **Deborah Paul**, iDigBio
- **Tim Robertson**, GBIF
- **Patrick Semal**, Royal Belgian Institute of Natural Sciences
- **Barbara Thiers**, New York Botanical Garden
- **Matt Woodburn**, Natural History Museum, London
- **Eliza Zschuschen**, National Herbarium of Suriname, Anton de Kom University of Suriname

[How your flight emits as much CO2 as many people do in a year](#), The Guardian, 19 July 2019  
[Map of museums all over the world](#), by Jkan997 - Own work, CC BY-SA 4.0



# Global collaboration and sustainability

- We rely heavily on conferences and workshops
- Advantages:
  - Opportunities to focus on a shared topic or problem
  - Excellent for networking and relationship-building
- Disadvantages:
  - Significant CO<sub>2</sub> emissions
  - Bias towards participants with access to travel funds
  - Need to set aside several days to participate
- We need a better alternative:
  - Open to everyone with an interest in a topic
  - Build consensus and develop truly international plans
  - Use the earth's CO<sub>2</sub> budget wisely



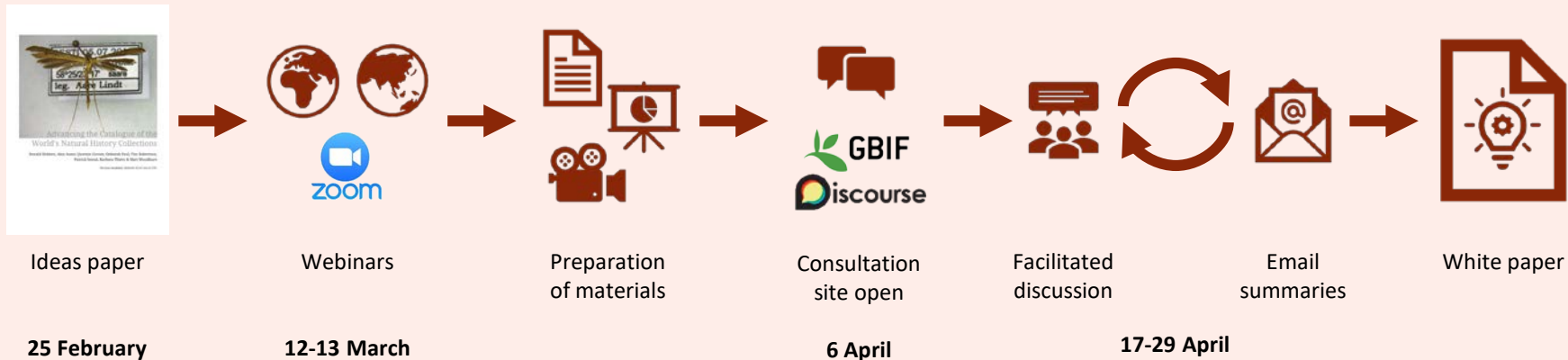
[How your flight emits as much CO<sub>2</sub> as many people do in a year](#), The Guardian, 19 July 2019  
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# An international low-carbon consultation

- Experimenting with a different model
  - Develop a white paper representing a shared vision
  - Avoid need for international (or national) travel
  - Avoid need to join late night calls (mostly)
  - Minimise technical requirements (low bandwidth)
  - Find ways to maximise international participation
  - Learn what could be improved in future



Arctic tern (*Sterna paradisaea*), Svalbard. Photo by Donna Pomeroy via iNaturalist Research-grade Observations, licensed under CC BY-NC 4.0.



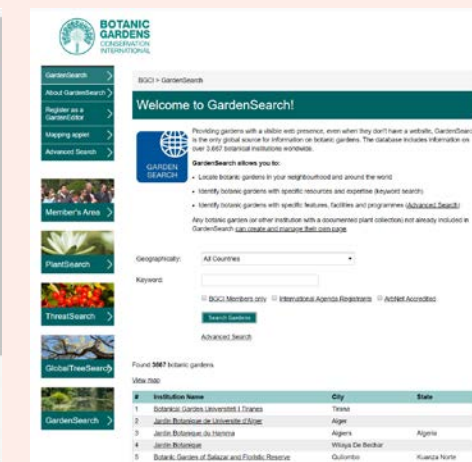
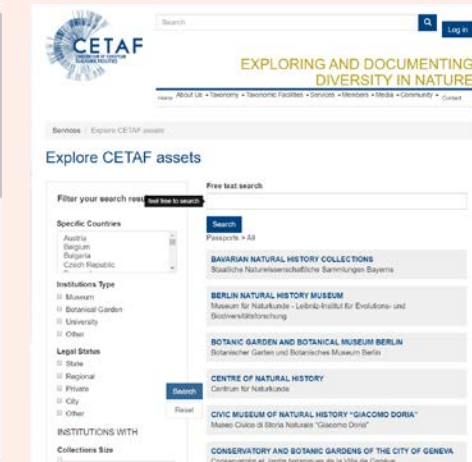
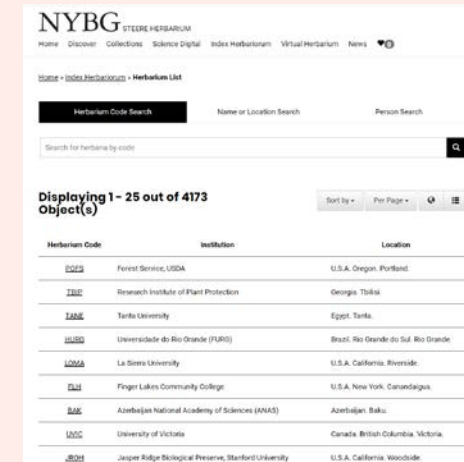
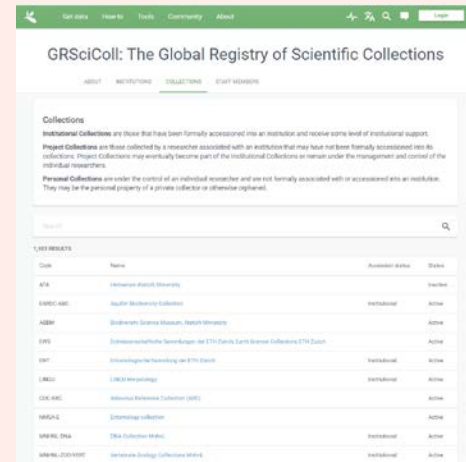
# Structure for consultation site

- Welcome and orientation page
  - Where to start
  - Latest updates (also sent as email summaries)
- Contributed materials (each with discussion thread)
  - Ideas paper
  - Contributions from key stakeholders
- Topic pages (each with discussion thread)
  - Page for each topic
  - Scope and opening questions
  - Summary when consensus is reached
- Email summaries of progress
  - Regular updates to keep participants up to date
  - Pointers to discussion threads
  - Translations if possible
- Outline/Draft of White Paper
  - If appropriate, beginning of community-edited (co-authored) paper



# Cataloguing the world's collections

- Multiple catalogues
  - Variable focus and content
  - Incomplete coverage
  - Disconnected effort
- 
- Opportunity to collaborate
  - Standardise data
  - Share updates
  - Highlight value of NHCs



# Ideas paper

- Four topic areas including 22 topics
  1. Uses for the catalogue (seven topics)
  2. Information in the catalogue (four topics)
  3. Technology for the catalogue (five topics)
  4. Governance of the catalogue (six topics)
- Consultation based around these topics
  - Scope and questions in Ideas Paper
  - Discussion threads in Discourse forum
  - Email updates to summarise agreement and open issues
  - Seek consensus and document alternative viewpoints



Advancing the Catalogue of the  
World's Natural History Collections

Donald Hobern, Alex Asase, Quentin Groom, Deborah Paul, Tim Robertson,  
Patrick Semal, Barbara Thiers & Matt Woodburn

Version 4ea8de8, 2020-02-25 07:19:22 UTC

## 1. Uses for the catalogue

The [TDWG Collection Description Interest Group](#) has collected use cases for natural history collection information from several major stakeholders.

### 1.1. A directory to support the collections community

Collections staff and taxonomists collaborate as a truly global community. Valuable specimens are distributed between institutions in all parts of the world. Researchers visit these collections or borrow specimens as part of their work. Index Herbariorum (IH) is the directory of information on the world's herbaria (addresses, contacts, specialties, size, etc.). It is a well-managed resource and highly regarded as a tool by the botanical community. No full equivalent exists globally for other natural history collections, although national/regional infrastructures such as the ALA collections pages, the iDigBio US Collections List, and the CETAF profiles serve similar roles. GBIF has recently integrated the Global Registry of Scientific Collections (GRSciColl) into its registry as a framework that can be extended with richer information curated by collections communities.

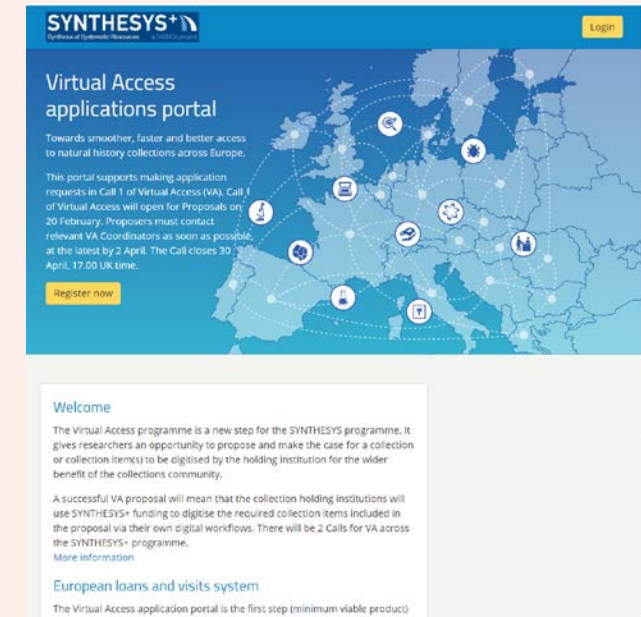
Q1. Would the collections community benefit from a comprehensive directory of all natural history collections? Who would make use of such a directory? (The focus here is on the catalogue as a directory of known institutions and information required to contact them.)





# 1 - Uses for the catalogue

- 1.1. A directory to support the collections community
- 1.2. Locating specimens and genetic materials
- 1.3. A first step towards databasing collections
- 1.4. Assessing the scale and value of collections
- 1.5. Increased value for data on specimens, taxonomic publications, etc.
- 1.6. Reducing duplication of effort
- 1.7. Foundation for new and enriched services





# 2 – Information in the catalogue

2.1. Definition of “natural history collection”

2.2. Description of a collection

2.3. Wider data linkages

2.4. Information services relating to collections

TDWG Standards Journal Community Conferences About News

## Natural Collections Descriptions (NCD)

Natural Collections Description (NCD) is a proposed data standard for describing collections of natural history materials at the collection level; one NCD record describes one entire collection.

[Find us on GitHub](#)

[technical specification](#) [draft standard](#)

Image by Curtis MacInnes

Standards / Natural Collections Descriptions (NCD) [Back this page](#)

NCD is a draft standard that was submitted for ratification in 2008. Personnel changes in several critical roles caused the ratification process to stall, so the specification has remained as a draft since. The in 2016 reestablished [Collection Descriptions Interest Group](#) has decided to discontinue the development of NCD in favour of a new TDWG Collections Description metadata standard. To follow the work of this group, visit [its repository](#).

### Header section

**Title**  
Natural Collections Descriptions (NCD)

**Date created**  
2008-06-12

**Status**  
Draft standard

**Category**  
Technical specification

**Permanent IRI**  
<http://www.tdwg.org/standards/312>



# 3 – Technology for the catalogue

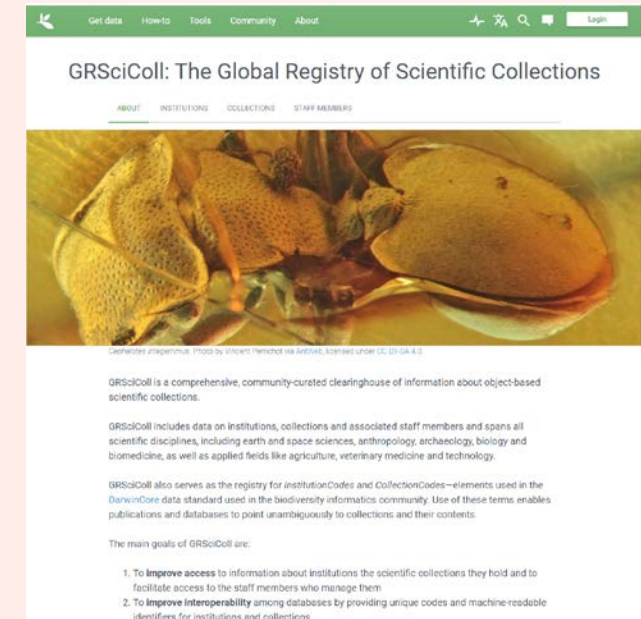
3.1. Pathways and tools for publishing collection records

3.2. Community catalogues

3.3. Integrated catalogue

3.4. Collection management systems

3.5. Interfaces, APIs and client modules



# 4 – Governance of the catalogue

4.1. Ownership of information for each collection

4.2. Communities of practice

4.3. Technical infrastructures

4.4. Governance arrangements

4.5. Incentives for contributors

4.6. Funding



# Issues and gaps

- Should we add any extra topics?
- Are there suggestions for ways to improve the process?





# Contributing to the consultation process

- Offer to prepare a document/slide sets/video
  - Respond to one or more topics
  - Present significant ideas, projects, tools or databases
  - Short (< 10 minute) items
  - Do not assume prior knowledge
- Assistance with translation of selected materials
  - Language remains a barrier for making this fully open
  - Help translate summary emails
- Publicising the consultation
  - Notify relevant networks



# Summary and final comments

- Any final suggestions?

Thank you for joining today's webinar  
We look forward to your contributions in April

