1.4. Assessing the scale and value of collections (USE)

dhobern #1 March 27, 2020, 9:58am

> This is topic 1.4. in the *Uses* section of the ***Advancing the Catalogue of the World's Natural History Collections*** consultation. Use this topic to discuss the questions listed below.

Background
Estimates of the number of specimens held by collections run into billions, but no definitive number exists. A catalogue could help to narrow these estimates and to assess the economic value of these irreplaceable holdings. This information may help to justify the scale of effort and funding needed to digitise collections and make their data accessible for universal, reliable and persistent use.

Other materials

The following contributed materials are particularly relevant to this topic:

- **Presentation: Index Herbariorum - Perspectives of a Long-Standing Collection Catalog**
- **Presentation: CETAF and DiSSCo Collections Registry**

Questions

- Would more accurate estimates of the scale and value of collections be useful?
- How might these be used and by whom?

Presentation: Index Herbariorum - Perspectives of a Long-Standing Collection Catalog

Faire Avancer le Catalogue des Collections d'Histoire Naturelle du Monde

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Advancing the Catalogue of the World's Natural History Collections

Presentation: CETAF and DiSSCo Collections Registry

1.9. Support for national and regional needs and applications (USE)

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Document: GBIF Services and Support for the Collections Catalogue

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dhobern #4 April 20, 2020, 11:43pm

@vsmithuk **commented on this topic here**.

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sharif.islam #5 April 23, 2020, 3:52pm

> dhobern:
>
> A catalogue could help to narrow these estimates and to assess the economic value of these irreplaceable holdings

Besides economic value, we should also include wider societal value. Another potential use case might be alternative (next-generation) metrics for measuring societal impact and relevance (looking beyond journal citations).

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elyw #6 April 24, 2020, 7:59am

Valuation of collections is completed regularly in Australian museums, using a standardised methodology. See this publication by the Council of Australasian Museum Directors from 2018 **https://camd.org.au/files/2018/11/CAMD-Collections-Valuation-Framework-1-Nov-2018.pdf**
and general readership article **https://www.intheblack.com/articles/2019/12/01/can-you-put-a-price-tag-on-heritage-assets**
Valuation of scientific collections is often based on the 'cost of recollecting' - a contested methodology but used for practical purposes as there is often no market value (palaeontology and geology collections being the exception to this).
Museums are also often required to have at least a back of the envelope calculation of how many specimens / objects they hold. These numbers are often reported (at least in Australia) in Annual Reports published by the institution.
My point is that the data may already be collected by the institution but not added to the collection registry. Although making an assessment about whether valuations are comparable across varying methodologies, regularity of collecting the data, etc could make the inclusion of such figures dubious at best.

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pzermoglio #7 April 24, 2020, 2:48pm

@elyw I think you raise a good point about how comparable could the assessments of value be if left for each collection/institution to provide.
I would expect that in an integrated catalogue such indicators of scale and value would be calculated somewhat automatically given some objective input parameters (such as number of specimens, number of type specimens, number of species, number of endemic species for the country, etc. -held in the collection). An agreed upon algorithm would not only make the indicators clearer, but would even help collections to focus on getting those numbers, which in many cases are difficult or too much effort consuming to estimate. Of course, relative weight of each parameter is not going to be easy to decide upon… I imagine "rankings" could be made by different criteria, and different indexes could be provided (e.g., value in region, scale by (higher) taxa, etc.).
How scale and value are calculated and ***presented*** should, however, be handled with care. Small collections, and relatively new collections, would probably be at a disadvantage if e.g. a funding agency (gov or non-gov) was lightly looking at these indicators to decide resources allocation. That would be sad, and counter this full initiative… we should make sure that the indicators, while honest, don't end up undermining opportunities for the collections.

Anabela #8 April 25, 2020, 3:19am

I'm curious about the One World Collection initative, its results and this topic.Between 2017 and 2018, the staff dedicated to working with collections (at the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia") were asked to estimate the number of specimens in the collections (according to certain taxonomic criteria). I am sure that many people present here went through the same process. Can we use this information for this Collections Catalogue initiative? Do we have any lessons learned with the OWC? Or maybe we need to use a different kind of scale?

1 Like

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Debbie #9 April 28, 2020, 5:22am

Hi @Anabela , great question. Certainly, we are already in the process (as part of building the TDWG Collection Descriptions standard) of gathering collections metadata to test the data model and data fields to see if the standard expresses the data accurately. And @mtrekels is using the magic of wikibase and his mad (wonderful) skills to visualize these metadata. We are already using "real" data to test, and will be gathering more (from various sources). It would be fantastic if OWC might share a copy of their data to test the data model. Meanwhile, we have some data, gathered in GRSciColl, IH, iDigBio, other collections, like the Field Museum, the Natural History Museum in London, Meise Botanic Garden, Naturalis, etc, that we can (and will use) to test and further develop the model.

You can see the kinds of data we are currently thinking we need / want to collect in the TDWG Collection Descriptions github website. We'd be happy to walk you through it and get your input too! https://github.com/tdwg/cd

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pzermoglio #10 April 29, 2020, 7:52pm

From @ErikaSalazar in this Spanish thread

Having estimates would be very important, for example for governmental decision makers. A collection that shows its value could more easily access economic resources.

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bsterner #11 April 29, 2020, 9:46pm

I would support making the minimum metadata standard for describing a collection support a range of commonly used evaluative metrics rather than deciding to build in one particular metric (of a given type). Arriving at a shared metadata standard does not imply or require agreeing on a shared definition or algorithm for generating evaluative metrics, at least to the extent that these metrics represent different ways of combining the same underlying factors. A minimum information standard in this spirit could be determined by identifying "common denominators" needed to calculate reported values in a range of different policy/economic contexts for collections. In short, we should consider whether reporting on the value/state of collections is best served by coordinating our metadata categories without having to arrive at a consensus metric.

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pzermoglio #12 April 30, 2020, 8:03am

From @WUlate in this Spanish thread, probably related to:

> pzermoglio:
>
> How scale and value are calculated and ***presented*** should, however, be handled with care. Small collections, and relatively new collections, would probably be at a disadvantage if e.g. a funding agency (gov or non-gov) was lightly looking at these indicators to decide resources allocation. That would be sad, and counter this full initiative… we should make sure that the indicators, while honest, don't end up undermining opportunities for the collections.

Value may end up being a controversial term because it could be a disincentive for those in charge of a collection that is not considered as "valuable" as others. We should include some incentives related to attention, support and opportunities for the collections that don't "qualify" as valuable.