

Conference Abstract

Lessons Learned From SISRIS, a US Based Initiative to Support Inclusive and Sustainable Collections-Based Research Infrastructure for Systematics

Andrea Weeks[‡], Elizabeth Collins[‡], Twanelle W. Majors[§], Zack Murrell[|], Deborah L. Paul[¶], Matthew Sheik[#], David Peter Shorthouse[□], Shawn E. Krosnick^{«»}

‡ George Mason University, Fairfax, United States of America

§ Tennessee Tech University, Cookeville, United States of America

| Appalachian State University, Boone, United States of America

¶ University of Illinois Urbana Champaign, Champaign, United States of America

Denver Botanic Gardens, Denver, United States of America

□ Independent, Gatineau, QC, Canada

« Tennessee Technological University, Cookeville, United States of America

» Associate Professor, Cookeville, United States of America

Corresponding author: Andrea Weeks (aweeks3@gmu.edu)

Received: 05 Dec 2024 | Published: 06 Dec 2024

Citation: Weeks A, Collins E, Majors TW, Murrell Z, Paul D, Sheik M, Shorthouse D, Krosnick SE (2024)

Lessons Learned From SISRIS, a US Based Initiative to Support Inclusive and Sustainable Collections-Based Research Infrastructure for Systematics. Biodiversity Information Science and Standards 8: e143669.

<https://doi.org/10.3897/biss.8.143669>

Abstract

Collections-based scientists have advocated for better measures of professional productivity to strengthen the foundation of human resources needed to conduct biodiversity research in the Anthropocene (e.g., McDade et al. 2011). A promising response to this challenge is using 21st century digital scholarship tools to quantify one's direct and indirect contributions to natural history collections, biodiversity informatics databases and published research. These tools include the web-based services provided by the [Open Researcher and Contributor ID initiative](#), [Wikidata](#), the [Global Biodiversity Information Facility](#), [Bionomia](#) and [Zenodo](#). However, there is a lack of awareness and understanding by collections-based scientists at all career stages about

these tools and their applications, which poses a barrier to reaching the critical mass of people necessary to start and sustain new community standards of practice that support new measures of professional contributions. To build capacity around this opportunity, we created and delivered a workshop and symposium series for botanists at all career stages in the United States, which focused on the skills and practices needed to sustain natural history specimen attribution and citation. While the series targeted participation by botanists, the structure of the initiative was designed to be adaptable by other domain groups. The name of the workshop and symposium series, "Supporting Inclusive and Sustainable Collections-Based Research Infrastructure for Systematics" (SISRIS) (Fig. 1), reflected our ultimate goal of effecting community-level change by sharing skills and practices. Central to the initiative was sharing how and why the use of unique identifiers for collectors and determiners can improve one's own professional recognition and advance biodiversity research at a community level. We report here the learning objectives for its participants, the longitudinal assessment of outcomes from workshops held in 2023 (Weeks et al. 2024) and in 2024, and our lessons learned from leading these events. We also reflect on why we believe SISRIS is an example of an effective strategy for building community capacity in biodiversity informatics, which could be adapted successfully by other groups of collections-based researchers.



Figure 1.

Promotional graphic for the SISRIS project used in online and print advertisements for the workshop and symposium. The QR-code leads to the SISRIS project site, <https://github.com/aweeks3/SISRIS/>. The graphic was created by Shawn Zeringue-Krosnick and Andrea Weeks and is shared under the Creative Commons licence [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/).

Keywords

Bionomia, Extended Specimen Concept, natural history collections

Presenting author

Andrea Weeks

Presented at

SPNHC-TDWG 2024

Acknowledgements

This material is based upon work supported by the US National Science Foundation under Grant No. 2247631 and 2247632.

Grant title

Collaborative Research: Conference: Supporting inclusive and sustainable research infrastructure for systematics (SISRIS) by connecting scientists and their specimens.

Conflicts of interest

Bionomia is a project developed and maintained by co-author David P. Shorthouse. It does not form part of his official duties as Biodiversity Data Manager with Agriculture and Agri-Food Canada.

References

- McDade L, Maddison D, Guralnick R, Piwowar H, Jameson ML, Helgen K, Herendeen P, Hill A, Vis M (2011) Biology Needs a Modern Assessment System for Professional Productivity. *BioScience* 61 (8): 619-625. <https://doi.org/10.1525/bio.2011.61.8.8>
- Weeks A, Collins E, Majors T, Murrell Z, Paul D, Sheik M, Shorthouse D, Zeringue-Krosnick S (2024) Workshop Report: Supporting inclusive and sustainable collections-based research infrastructure for systematics (SISRIS). *Research Ideas and Outcomes* 10 <https://doi.org/10.3897/rio.10.e126532>