

Taxonomy at the intersection of Indigenous knowledge and natural sciences



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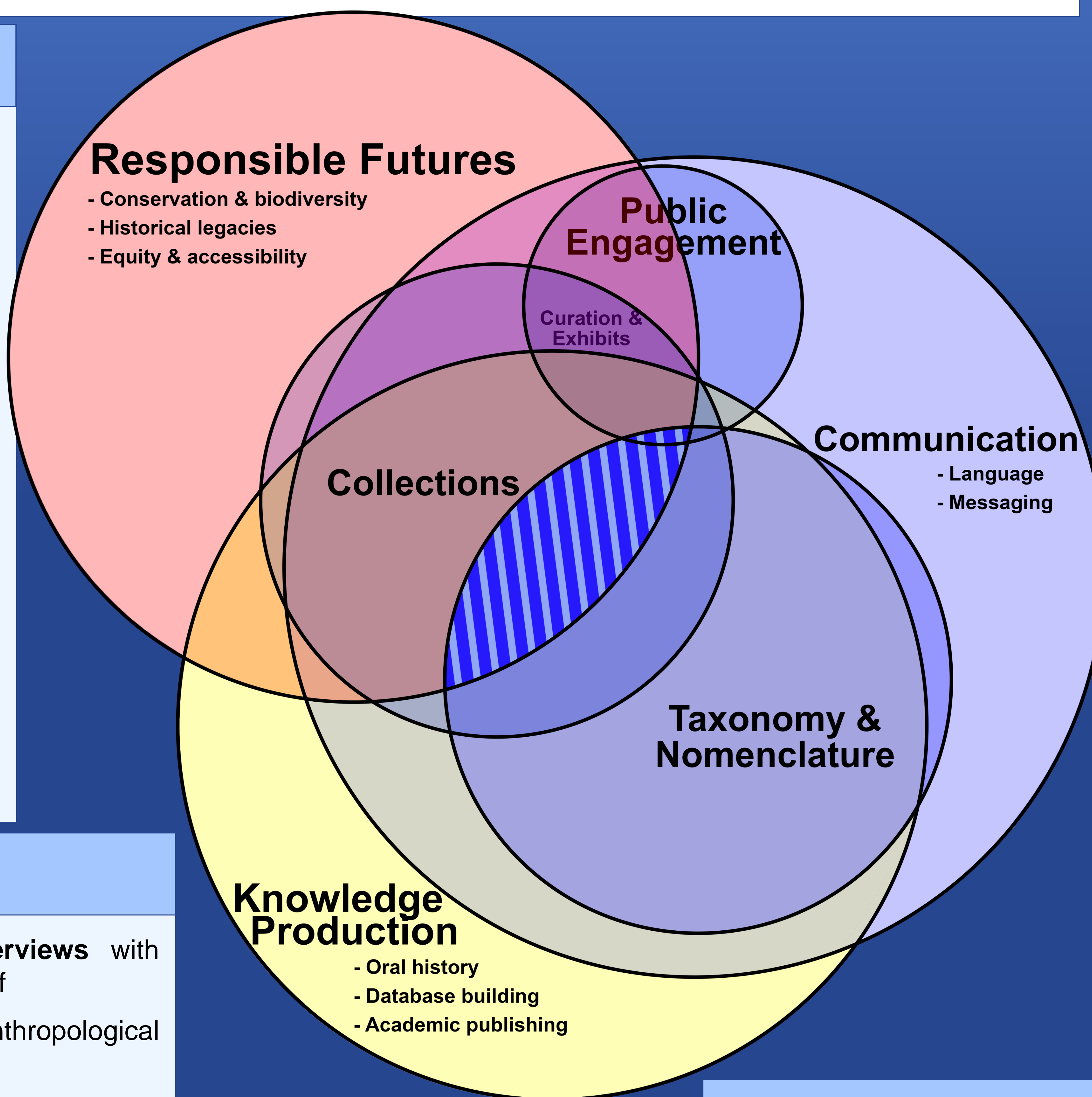


Research Questions

- To what extent and **in what ways does taxonomy shape the natural sciences** in museums?
- How can comparisons across disciplines give insight to the nature of taxonomy and naming practices as a whole?
- How can integrating Indigenous knowledges and taxonomic practices contribute to more resilient futures?

Context & Motivation

- “**Taxonomy is at a crossroads...** Many people think it’s old fashioned, but it could be changed, or navigated differently, to be at the cutting edge of science.” (Jun Wen)
- By bridging **understandings between the social and natural sciences**, taxonomy can be a lens to explore wider knowledge dynamics
 - Colonial legacies are being explored within the museum, including honorifics, but to varying extents in each department
 - Taxonomy is a unit by which science is done within academia, but it also holds potential as a tool for publicly **accessible conversations about the nature of science**



Methods

Informal **group and individual interviews** with National Museum of Natural History staff

Qualitative analysis, informed by anthropological methods of collaborative ethnography

Discussion

Taxonomy differs across departments, but its intersections provide insight for how to **meaningfully integrate multiple knowledge systems (including Indigenous knowledge)**.

Key themes emerged in interviews:

- Taxonomy is fundamental** to communication and biodiversity efforts
 - “All of naming and language is taxonomy, in one form or another.” (Kevin de Queiroz)
 - “As our understanding of taxonomic boundaries grows, so does our chances of conserving and protecting that biodiversity.” (John Pfeiffer)
- These **dynamics vary widely** across departments
 - Tensions exist between knowledge systems, but “when two sets of data conflict, we should be driven to look at *why* they conflict.” (Kevin de Queiroz)
- “Including Indigenous names [and other context] is a way of **connecting biodiversity and cultural diversity**” in integrated knowledge systems. (Floyd Shockley)
- Clear need to **integrate systems, institutions, and communities**
 - Ex: Utilizing existing databases like EMu, and exploring new applications for **relational knowledge links**, because “no one institution can do something like this on their own.” (Hans Sues)

Application & Next steps

- “Having power and importance means we also have the responsibility to convene these larger conversations” about taxonomy as shaping the future of science. (Floyd Shockley)
- Integrating multiple knowledge systems, including naming practices, will lead to **more robust, interconnected science and knowledge**
 - Potential exhibit and other public engagement about how taxonomy shapes understanding
 - Joint written paper to communicate findings

Acknowledgements

Thank you to all those who contributed their thoughts to this project, including NMNH’s CHAT Committee, Kevin de Queiroz, Steve Gotte, Logan Kistler, Amanda Lawrence, Tim McCoy, Lynne Parenti, John Pfeiffer, Diane Pitassy, Floyd Shockley, Hans Sues, and Jun Wen. This research was also made possible through invaluable guidance from Elizabeth Cottrell, Gene Hunt, and Virginia Power, as well as through funding from the National Science Foundation, REU Site OCE-1560088.

Figure 1 Venn diagram showing intersections of key knowledge communities at the National Museum of Natural History. **Taxonomic research is at the nexus of communication, knowledge production and responsible futures**, providing a common lens for understanding knowledge dynamics in the museum. (courtesy of Asher Thye)