# Beckett Sterner

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## Research Interests

I use interdisciplinary methods to study **how knowledge systems can better address wicked problems**. My projects advance pluralistic approaches to biodiversity data sharing, modeling, and governance.

## Employment

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|---|---|---|
| **Arizona State University** | 2023–Present | Associate Professor |
| **Arizona State University** | 2016–2023 | Assistant Professor |
| **University of Michigan** | 2014–2016 | Society of Fellows, Department of Philosophy |
| **Field Museum** | 2012–2014 | NSF Postdoctoral Fellow, Philosophy of Biology |

## Education

**University of Chicago**

2012 PhD, Committee on Conceptual and Historical Studies of Science
Thesis: "The Practice of Theorizing in Computational Biology"
Committee: William Wimsatt, Robert Richards, C. Kenneth Waters

2011 M.Sc., Statistics

2009 M.A., Philosophy

**Massachusetts Institute of Technology**

2006 B.S., Mathematics

## Honors and Awards

| | | |
|---|---|---|
| 2021 | Inclusive Teaching Fellowship, Research for Inclusive STEM Education Center | Arizona State University |
| 2020–2021 | Graduate College Teaching Innovation Fellowship | Arizona State University |
| 2020 | Ideas Challenge winner (ranked #4 out of 250 nationally) | Templeton Foundation |
| 2014–2016 | Postdoctoral Fellowship, Society of Fellows | University of Michigan |
| 2011–2012 | Mellon Foundation Dissertation-Year Fellowship | University of Chicago |
| 2006–2008 | University Fellowship | University of Chicago |
| 2006 | Pogosyants Award for Outstanding Undergrad Research, Dept. of Electrical Engineering and Computer Science | MIT |

## Research Support

### Awarded External ($3.8M total, $1.8M active)

2024–2025 Effective Design of Institutions and Data Sharing Platforms in International Environmental Agreements

| | | | | | |
|---|---|---|---|---|---|
| | PI | 40% REC | $392k | NSF Law & Science | Co-PI Ute Brady, Zoe Nyssa (Purdue) |
| 2023–2028 | DMS/NIGMS 2: Spatial, Multi-Host Petri Net Models for Zoonotic Disease Forecasting | | | | |
| | PI | 40% REC | $1.1M | NIH R01 (NIGMS) | Co-PI Petar Jevtic, Nate Upham |
| 2023–2025 | Debating the Who, What, and Where of the National Ecological Observatory Network | | | | |
| | PI | 60% REC | $240k | Sloan Foundation | Co-PI Ute Brady, Zoe Nyssa (Purdue) |
| 2023–2025 | DDRIG: Boundary Speak: Science and Traditional Ecological Knowledge in Dinétah | | | | |
| | PI | 50% REC | $14k | NSF Science and Technology Studies | Co-PI Myla Vicenti Carpio |
| 2022–2027 | CAREER: Knowledge Infrastructure in the Red List of Threatened Species | | | | |
| | PI | 100% REC | $439k | NSF CAREER | |
| 2022–2023 | Alliance for Biodiversity Knowledge Governance Models | | | | |
| | PI | 33% REC | $26k | Global Biodiversity Information Facility | Co-PI Ute Brady, Zoe Nyssa (Purdue) |
| 2021–2024 | Dynamic Linear Modeling to Unlock New Tests of Directionality in Fossil Lineages | | | | |
| | PI | 60% REC | $250k | Templeton Fdn | Co-PI John Fricks |
| 2021–2023 | Intelligently predicting viral spillover risks from bats and other wild mammals | | | | |
| | Co-PI | 25% REC | $475k | NIH R21 | PI Nathan Upham, Co-PI Nico Franz, Atriya Sen (Univ. of New Orleans), DeeAnn Reader (Bucknell) |
| 2021–2023 | Explaining Differential Success in Biodiversity Knowledge Commons | | | | |
| | PI | 67% REC | $396k | NSF Science of Science | Co-PI Steve Elliott, Zoe Nyssa (Purdue) |
| 2019–2020 | Essays on Emerging Ecological Risk | | | | |
| | Co-PI | 50% REC | $9.2k | Society of Actuaries | PI: Petar Jevtic |
| 2018–2021 | Productive Ambiguity in Classification | | | | |
| | PI | 55% REC | $160k | NSF Science and Technology Studies | Co-PIs: Nico Franz, Manfred Laubichler, Liz Lerman, Joeri Witteveen |
| 2012–2014 | The Impact of Mathematics on Inferring Classifications and Phylogenies | | | | |
| | Co-PI | 50% REC | $120k | NSF Postdoctoral Fellowship | PI: Scott Lidgard (Field Museum) |
| 2008–2011 | Implications of the History of Computers in Biology for the Unity of Science | | | | |
| | PI | 100% REC | $150k | NSF Graduate Research Fellowship | |

**Awarded Internal ($702k total: $0k active)**

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|---|---|---|---|---|---|
| 2023 | Community visions of the Salt River: collaborative meaning-making through game play | | | | |
| | PI | NA | $5k | Seize the Moment Initiative, Humanities Lab | Co-PI Nancy Grimm, Jennifer Keahey |
| 2020–2021 | Biocollections DEI Research Fellowship: Facilitating Equity and Inclusivity in Human-Nature Connections | | | | |
| | Co-PI | NA | $10k | ASU Natural Sciences JEDI Seed Grant | PI: Kelsey Yule, Co-PI Nico Franz |
| 2019 | Workshop: Closing The Feedback Loop Between Decision-Making and Biodiversity Data | | | | |
| | PI | NA | $12k | Global Futures Initiative | Co-PI: Nico Franz |

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|---|---|---|---|---|---|
| 2019–2021 | Biodiversity Data Science Initiative | | | | |
| | PI | NA | $600k | ASU Presidential Strategic Initiative Fund | Co-PI: Nico Franz |
| 2017–2019 | Statistical Innovation, Models, and Complex Data Questions in Paleontology and Beyond | | | | |
| | Co-PI | 100% REC | $55k | Field Museum Science Innovation Award | PI: Scott Lidgard |
| 2017–2018 | When Does Taxonomy Matter: Linnaeus and Beyond | | | | |
| | PI | 33% REC | $20k | McDonnell Foundation, via Marine Biological Laboratory | Co-PIs: Nico Franz, David Remsen |

## Publications

*My research program is highly interdisciplinary and best suited to collaborative, co-authored research articles. Significance of author order: First authorship indicates the person who contributed the primary research effort to the publication, and corresponding authorship indicates the main project lead. Author order is determined by effort contributed.*

*Google Scholar Profile: https://scholar.google.com/citations?user=Visl4CkAAAAJ*
*Total citations: 660; h-index: 14; i10-index: 20; accessed January 21, 2026*

*Trainees: [u] undergraduate; [g] graduate; [p] postdoctoral or assistant research professor. The corresponding author is starred (*).*

### Works Forthcoming (10 total: 2 first author; 2 corresponding)

| | | |
|---|---|---|
| 10. | In Press | ***B Sterner**. "Kinds of Pluralism about Function." Book Chapter in *Philosophy of Biological Function*, Routledge. Edited by Zdenka Brzović, Justin Garson and Predrag Šustar. |
| 9. | In Press | T Reckell[g], **B Sterner**, *P Jevtić, R Davidrajuh. "A Numerical Comparison of Petri Net and Ordinary Differential Equation SIR Component Models." *IEEE Access.* https://arxiv.org/abs/2407.10019 |
| 7. | Revision | ***B Sterner**, Ute Brady[p], Zoe Nyssa, Steve Elliott, Krystal S. Tsosie. "Chartering a New Social Contract for Public Science: Relationholders and Shared Governance." *The ANNALS of the American Academy of Political and Social Science*. |
| 6. | Revision | J Ginos[g], **B Sterner**, *P Jevtić. "Spatial Point Pattern Analysis of Valley Fever in the Phoenix Metropolitan Area." *Infectious Disease Modeling.* Pre-Print: https://www.medrxiv.org/content/10.1101/2025.07.14.25331482v3 |
| 5. | Submitted | *Z Nyssa, U Brady[p], **B Sterner**. "Collected Resources or Resourceful Collectives? Reimagining the Social Experience of Open Data Portals." *BioSocieties*. |
| 4. | Submitted | *U Brady[p], Z Nyssa, **B Sterner**. "Curating knowledge commons: Institutional arrangements for data provisioning in online biodiversity portals." *Policy Studies Journal*. |
| 3. | Submitted | BK Manu[g], T Reckell[g], **B Sterner**, *P Jevtić. "A Simple Approximate Bayesian Inference Neural Surrogate for Stochastic Petri Net Models." *Simulation Modelling Practice and Theory.* https://arxiv.org/abs/2507.10714 |

2. Submitted — Powell C[g], B Sterner, N Franz. "Synthetic Data as a Tool for Reducing Manual Annotation in Herbarium Specimen Segmentation: The LaForge10k dataset." *Applications in Plant Sciences*.

1. Pre-print — Sarabi Ali[g], Arash Sarabi[g], H Yan, **B Sterner**, *P Jevtić. "Forecasting Coccidioidomycosis (Valley Fever) in Arizona: A Graph Neural Network Approach." Pre-print: https://arxiv.org/abs/2507.10014

## Published Peer-Reviewed Articles (39 total: 20 first author; 25 corresponding)

39. 2025 — *Compton Mellon WJ, **B Sterner**, J Arvid Ågren, et al. 2026. "Leveraging Comparative Phylogenetics for Evolutionary Medicine: Applications to Comparative Oncology." *Evolution, Medicine, and Public Health* 14 (1): 1–12. https://doi.org/10.1093/emph/eoaf039.

38. 2025 — *Reckell T[g], **B Sterner**, and P Jevtić. "The Basic Reproduction Number for Petri Net Models: A Next-Generation Matrix Approach." *Applied Sciences* 15 (23): 12827. https://doi.org/10.3390/app152312827.

37. 2025 — *Hunt G, WR Martinez[g], J Fricks, **B Sterner**. "Using State Space Models to Understand Trait Evolution in Fossil Lineages." *Paleobiology*. https://doi.org/10.1017/pab.2025.10075

36. 2025 — *Weiss KCB[g], R Larson, **B Sterner**, I Wierzbowska, S VandeWoude, Kevin Crooks, J Schipper, J Lewis. "Prey selection of a widespread carnivore relative to predator-prey co-occurrence in space and time." *Journal of Animal Ecology*.

35. 2025 — *Weiss KCB[g], SCP Coogan, P Deviche, JS Lewis, SC Hess, J Schipper, EG Strauss, **B Sterner**. "Coyote (*Canis latrans*) Macronutrient Consumption and Diet Relative to Seasonality and Urbanization." *Ecology and Evolution*. 15 (5): e71405. https://doi.org/10.1002/ece3.71405

34. 2025 — Finkbeiner A[u], A Khatib[u], N Upham, and ***B Sterner**. "A Systematic Review of the Distribution and Prevalence of Viruses Detected in the Peromyscus maniculatus Species Complex (Rodentia: Cricetidae)." *PLoS Pathogens.* 21(6): e1013125. https://doi.org/10.1371/journal.ppat.1013125

33. 2025 — Elliott S, ***B Sterner**. "Open Data and Epistemic Oppression." *European Journal of Philosophy of Science*.

32. 2024 — Cheng H[g], and ***B Sterner**. "Error Statistics Using the Akaike and Bayesian Information Criteria." *Erkenntnis*. DOI: 10.1007/s10670-024-00897-2

31. 2024 — Chiaradonna S[g], *P Jevtić, **B Sterner**. "MPAT: Modular Petri Net Assembly Toolkit," *SoftwareX.* 28: 101913. DOI: 10.1016/j.softx.2024.101913.

30. 2024 — ***Sterner B,** and S Lidgard. "Objectivity and Underdetermination in Statistical Model Selection." *British Journal for the Philosophy of Science.* DOI: 10.1086/716243.

29. 2024 — ***Sterner B**, and S Elliott. "How Data Governance Principles Influence Participation in Biodiversity Science." *Science as Culture.* 33(3), 366-391. DOI: 10.1080/09505431.2023.2214155.

28. 2023 — Alshawi R, *A Sen[p], N Upham[p], **B Sterner**. "A Novel Dataset Towards Extracting Virus-Host Interactions." *Workshop on Information Extraction from Scientific Publications 2023.* DOI: 10.18653/v1/2023.wiesp-1.5

27. 2023 — ***Sterner B**, S Elliott, E Gilbert[g], and N Franz. "Unified and Pluralistic Ideals for Data Sharing and Reuse in Biodiversity." *Database.* DOI: 10.1093/database/baad048.

26. 2023 — *McCartney A, KS Tsosie, **B Sterner**, JR Glass, S Paez, J Geary, M Hudson, and MA Head. "Indigenous Peoples and Local Communities as Partners in the Sequencing of

All Eukaryotic Life for the Future of Life." *NPJ Biodiversity*, October 5, 2022. DOI: 10.21203/rs.3.rs-2128776/v1.

25. 2023 ***Sterner B**. 2023. "Norms of Evidence in the Classification of Living Fossils." *Frontiers in Ecology and Evolution* 11. DOI: 10.3389/fevo.2023.1198224

24. 2023 ***Sterner B**, S Elliott, J Wideman. "An Account of Conserved Functions and How Biologists Use Them to Integrate Cell and Evolutionary Biology." *Biology and Philosophy*. DOI: 10.1007/s10539-023-09933-x

23. 2023 *Halpern, BS, C Boettiger, MC Dietze, JA Gephart, P Gonzalez, … **B Sterner**, ... L Lancaster. "Priorities for synthesis in ecology and environmental science." *Ecosphere*. DOI: 10.1002/ecs2.4342

22. 2022 ***Sterner B**, J Witteveen, and A Sen. "Consensus and Scientific Classification." *Knowledge Organization*. DOI: 10.5771/0943-7444-2022-4-236

21. 2022 ***Sterner B**. "Explaining Ambiguity in Scientific Language." *Synthese*. DOI: 10.1007/s11229-022-03792-x

20. 2021 *Upham N[p], JH Poelen, DL Paul, Q Groom, NB Simmons, MPM Vanhove, S Bertolino, DM Reeder, C Bastos-Silveira, A Sen, **B Sterner**, N Franz, M Guidoti, L Penev, and D Agosti. "Liberating Host–Virus Knowledge from Biological Dark Data." *The Lancet Planetary Health* 5(10): e746–50. DOI: 10.1016/S2542-5196(21)00196-0

19. 2021 *Sen A[p], **B Sterner**, N Franz, C Powell[g], N Upham[p]. "Combining Machine Learning & Reasoning for Biodiversity Data Intelligence." *Proceedings of the AAAI Conference on Artificial Intelligence* 35(17): 14911–19. DOI: 10.1609/aaai.v35i17.17750

18. 2021 ***Sterner B**, S Elliott, N Franz, and N Upham[p]. "Bats, Objectivity, and Viral Spillover Risk." *History and Philosophy of the Life Sciences* 43(1): 7. DOI: 10.1007/s40656-021-00366-x

17. 2021 ***Sterner B,** and C DiTeresi. 2021. "Making Coherent Senses of Success in Scientific Modeling." *European Journal for Philosophy of Science* 11(1). DOI: 10.1007/s13194-020-00336-3.

16. 2020 ***Sterner B**, E Gilbert[g], and N Franz. 2020. "Decentralized but Globally Coordinated Biodiversity Data." *Frontiers in Big Data* 3: 519133. DOI: 10.3389/fdata.2020.519133

15. 2020 ***Sterner B**, J Witteveen, and N Franz. 2020. "Coordinating dissent as an alternative to consensus classification: insights from systematics for bio-ontologies." *History and Philosophy of the Life Sciences* 42(1): 8. DOI: 10.1007/s40656-020-0300-z

14. 2020 Cullan M[g], S Lidgard, and ***B Sterner**. "Controlling the Error Probabilities of Model Selection Information Criteria Using Bootstrapping." *Journal of Applied Statistics* 47(13–15): 2565–81. DOI: 10.1080/02664763.2019.1701636

13. 2019 Cusimano S[u] and ***B Sterner**. "Integrative Pluralism for Biological Function." *Biology & Philosophy* 34(6): 55. DOI: 10.1007/s10539-019-9717-8

12. 2019 Cusimano S[u], and ***B Sterner**. "The Objectivity of Organizational Functions." *Acta Biotheoretica.* DOI: 10.1007/s10441-019-09365-9

11. 2019 ***Sterner B**. "Evolutionary Species in Light of Population Genomics." *Philosophy of Science*. 86: 1-12. DOI: 10.1086/705527

10. 2018 ***Sterner B**, and S Lidgard. "Moving Past the Systematics Wars." *Journal of the History of Biology*. 51: 31–67. DOI: 10.1007/s10739-017-9471-1

9. 2018 *Franz N, and **B Sterner**. "To Increase Trust, Change the Social Design of Biodiversity Data Aggregation." *Database.* DOI: 10.1093/database/bax100

8. 2017 *__Sterner B__. "Individuating Population Lineages: A New Genealogical Criterion." *Biology and Philosophy*. 32 (5): 683–703. DOI: 10.1007/s10539-017-9580-4
7. 2017 *__Sterner B__ and N Franz. "Taxonomy for Humans or Computers?" *Biological Theory*. 12 (2): 99–111. DOI: 10.1007/s13752-017-0259-5
6. 2015 *__Sterner B__. "Pathways to Pluralism about Biological Individuality." *Biology and Philosophy*. 30 (5): 609–628. DOI: 10.1007/s10539-015-9494-y
5. 2014 *__Sterner B__. "The Practical Value of Biological Information for Research." *Philosophy of Science* 81 (2): 175–94. DOI: 10.1086/675679.
4. 2014 *__Sterner B__, and S. Lidgard. "The Normative Structure of Mathematization in Systematic Biology." *Studies in the History and Philosophy of Biological and Biomedical Sciences* 46: 44–54. DOI: 10.1016/j.shpsc.2014.03.001 .
3. 2009 *__Sterner B__. "Object Spaces: An Organizing Strategy for Biological Theorizing." *Biological Theory* 4(3): 280–286. DOI: 10.1162/biot.2009.4.3.280
2. 2008 Li S, F Zhao, **B Sterner**, and *J Xu. "Discriminative Learning for Protein Conformation Sampling." *Proteins: Structure, Function, and Bioinformatics* 73(1): 228–240. DOI: 10.1002/prot.22057
1. 2007 **Sterner B,** R Singh, and *B Berger. "Predicting and Annotating Catalytic Residues: An Information-Theoretic Approach." Journal of Computational Biology. 14(8): 1058–1073. DOI: 10.1089/cmb.2007.0042

## Book Chapters (3 total: 3 first author; 3 corresponding)

3. 2025 ***B Sterner**. "Commentary on: 'Transforming Objects into Data' by Ayelet Shavit and James R. Griesemer (2011). *Science in the Context of Application*." Book section in *Scaffolding Griesemer: Selected Contributions of James R. Griesemer to History, Philosophy, and Biology*, edited by Rachel A. Ankeny, Michael R. Dietrich, and Sabina Leonelli. Springer, Cham. https://doi.org/10.1007/978-3-031-84609-0_17
2. 2017 *__Sterner B__. "Individuality and the Control of Life Cycles." In *Biological Individuality*, eds. Scott Lidgard and Lynn Nyhart. Chicago: University of Chicago Press, 84–108.
1. 2013 *__Sterner B__. "Well-Structured Biology: Numerical Taxonomy and Its Methodological Vision for Systematics." In *The Evolution of Phylogenetic Systematics*, edited by Andrew Hamilton, 213–44. Los Angeles: University of California Press.

## Essay Reviews (1 total; 1 first author; 1 corresponding)

1. 2018 ***Sterner B**. (5000 words) "Review of *Data-Centric Biology: A Philosophical Study*." Philosophy of Science. 85 (3): 540–550.

## Scientific Reports (2 total; 1 first author; 0 corresponding)

2. 2021 **Sterner B**, E Boyle[g], *P Jevtic. "Emerging Risks in the Health Sector from Changing Species Distributions and Seasonality." *Environmental Risk Series,* Society of Actuaries. https://www.soa.org/globalassets/assets/files/resources/research-report/2021/emerging-risks-health-sector.pdf
1. 2021 Boyle E[g], **B Sterner**, A Kinzig, *P Jevtic. "New Fire Hazard Risk from Policy Responses to Climate Change." *Environmental Risk Series*, Society of Actuaries. https://www.soa.org/globalassets/assets/files/resources/research-report/2021/fire-hazard-risk.pdf

## Conference Abstracts (8 total: 2 first author; 4 corresponding)

8. 2023 *Gilbert, E[g], **B Sterner**, M Fisher, S Orellana , K Pearson, G Post , L Walker , L Wilt , J Yost, N Franz. "Symbiota Integrations: Exploration of Historical and Current Methods of Data Sharing Across a Decentralized Portal Network and Goals of Extending Interoperability Globally." *Biodiversity Information Science and Standard* 7: e111680
7. 2022 *Upham N, C Powell, L Rocha Prado, N Franz, and ***B Sterner**. "Extended Taxonomic Curation: Moving beyond Species Lists to Linking Species Data." *Biodiversity Information Science and Standards* 6 (August 23, 2022): e93670.
6. 2022 *Rocha Prado L, N Upham, N Franz, and ***B Sterner**. "Extending Recognition for Taxonomic Curation Beyond the Traditional Authorities." *Biodiversity Information Science and Standards* 6 (September 7, 2022): e94252.
5. 2021 ***Sterner B**, N Upham[p], P Gupta[p], C Powell[g], and N Franz. 2021. "Wanted: Standards for FAIR Taxonomic Concept Representations and Relationships." *Biodiversity Information Science and Standards* 5: e75587.
4. 2020 *Gilbert E[g], N Franz, **B Sterner**. "Historical Overview of the Development of the Symbiota Specimen Management Software and Review of the Interoperability Challenges and Opportunities Informing Future Development." *Biodiversity Information Science and Standards*. 4: e59077.
3. 2020 *Sen A[p], N Franz, **B Sterner**, N Upham[p]. "The Automated Taxonomic Concept Reasoner." *Biodiversity Information Science and Standards*. 4: e59074.
2. 2020 ***Sterner B**, N Upham[p], A Sen[p], N Franz. "Avenues into Integration: Communicating taxonomic intelligence from sender to recipient." *Biodiversity Information Science and Standards*. 4: e59006.
1. 2019 *Franz N, E Gilbert[g], and **B Sterner**. "Distributed, but Global in Reach: Outline of a de-centralized paradigm for biodiversity data intelligence." *Biodiversity Information Science and Standards*. 3: e37749.

## Presentations

Venue type: **Bold** = international; Underlined = national; *italics* = regional

### External Invited Presentations (25 total)

25. 2025 "A Network, Not A Hierarchy: Pluralistic Governance for Species Lists in Conservation and Systematics." Annual Symposium Keynote, Ethical Open Science Research Coordination Network, University of California Merced
24. 2025 "Scientific Practices for Wicked Problems." History and Philosophy of Science Department, University of Pittsburgh
23. 2024 "Debating the Who, What, and Where of the National Ecological Observatory Network (NEON)." NEON Headquarters, Boulder, Colorado.
22. 2024 "A Network, Not A Hierarchy: Pluralistic Governance for Species Lists in Conservation and Systematics." **Aims, Norms, and Values in Scientific Classification for Biodiversity Conservation,** Konrad Lorenz Institute, Austria.
21. 2024 "Modeling Directionality in Phenotypic Evolution." **Science of Purpose Initiative Final Summit**, University of Minnesota, USA.
20. 2024 "Modeling Directionality Across Scales." **Science of Purpose Initiative**, University of Minnesota

19. 2023 "Implications of digitization for the governance of biodiversity data." **Global Biodiversity Information Facility**, Denmark.
18. 2023 "Designing Pluralistic Knowledge Systems for Wicked Problems." **University of Copenhagen**, Denmark.
17. 2023 "State space modeling to unlock new tests of directionality in fossil lineages," with John Fricks, Gene Hunt, Melanie Hopkins, and Antonio Campbell. **40th Altenberg Workshop in Theoretical Biology**, "Directionality in Genomics and Macroevolution," Konrad Lorenz Institute, Vienna.
16. 2023 "Data for Whom? Intellectual Property, Biodiversity, and Indigenous Genomic Data Sovereignty," with Krystal Tsosie. **7th Annual Digital Data in Biodiversity Conference**, iDigBio.
15. 2023 "An Account of Conserved Functions and How Biologists Use Them to Integrate Cell and Evolutionary Biology," **Science of Purpose Initiative**, University of Minnesota.
14. 2022 "Knowledge Systems for Wicked Problems," **Egenis Seminar**, University of Exeter
13. 2021 "Building a Community Around Your Taxonomic Needs," **TaxonWorks Together 2021**, University of Illinois-Urbana Champaign.
12. 2021 "Making Biodiversity Portals FAIR and CARE," *Indigenous Data Sovereignty Collaboratory*, University of Arizona
11. 2021 "Biodiversity Data Methods Now and Into the Future," Plenary presentation with Leah Oliver and Anne Frances, Biodiversity without Borders, NatureServe Annual Conference
10. 2021 "The Practical Value of Biological Information," Guest lecture for graduate Philosophy of Mind seminar, *University of Arizona*
9. 2020 "Biodiversity and Intensive Agriculture: Determining the Landscape for Win-Win Outcomes." Food and Values Workshop, **University of Adelaide**, Australia.
8. 2020 Commentator and panelist, Book manuscript seminar for Paola Castaño, "Beyond the Lab: The Social Life of Experiments on the International Space Station," University of Chicago
7. 2020 Panelist, "Numbers and Names: How taxonomic challenges affect biodiversity conservation," NatureServe **Pulse of the Planet Webinar**
6. 2017 "What Does It Mean to Know Something? The Ontological and Epistemological Faces of Information." *Templeton World Charity Foundation Workshop*, Phoenix, Arizona.
5. 2017 "Modeling the Ephemeral Branches of Population Lineages." Species in the Age of Discordance Workshop, University of Utah.
4. 2013 "The Epistemology of Causal Selection: Insights from Systems Biology." Center for Philosophy of Science Colloquium, University of Pittsburgh.
3. 2013 "What Statistical Phylogenetics Implies About Species." *Watson Armour Seminar*, Field Museum, Chicago.
2. 2011 "Well-Structured Biology: Statistics and Philosophies of Systematics." Progress by Design: Mathematization in Science and Engineering from the Enlightenment to the Personal Computer, **Bielefeld University**, Bielefeld, Germany.
1. 2008 "Reduction and Modular Objects: DNA, Evolution, and Sequence Space." Boundaries and Edges of Biological Objects, University of Utah.

## Peer-Reviewed Conference Submissions (38 total)

38. 2025 "Chartering a New Social Contract for Public Science: Relationholders and Shared Governance." The Public's Science Conference, Institute of Advanced Study, Princeton, USA.
37. 2024 "Resolving Conflicts of Care and Objectivity in the Red List of Threatened Species." Philosophy of Science Association, New Orleans, USA.
36. 2024 "In Search of A Bigger Picture for Philosophy of Scientific Practice." **Society for the Philosophy of Science in Practice.**
35. 2024 Co-presented with Riley Taitingfong, "'Phase 0' of CARE Implementation in Repository Setting: Looking Back Before Moving Forward." U.S. Indigenous Data Sovereignty & Governance Summit 2024.
34. 2023 "Modeling Evolutionary Rates." **International Society for the History, Philosophy, and Social Studies of Biology** (ISHPSSB).
33. 2023 "Cognitive and affective domains of evolution acceptance," presented by Josh Hoskinson. **ISHPSSB**
32. 2023 "Specimens and the Free Rider Problem For Biodiversity Data," with Ute Brady. **Society for the Preservation of Natural History Collections**.
31. 2023 "From social dilemma to social panacea: Openness in natural and knowledge commons," presented by Ute Brady. **International Association for the Study of the Commons.**
30. 2022 "Governance and the Social Epistemology of Data Integration for Global Biodiversity Loss," with Ute Brady and Steve Elliott. Governance of Emerging Technologies and Science
29. 2021 "Wanted: Standards for FAIR Taxonomic Concept Representations and Relationships," with Nathan Upham, Prashant Gupta, Caleb Powell, and Nico Franz. **TDWG 2021.**
28. 2021 "Data Integration without Unification," with Steve Elliott, Ed Gilbert, and Nico Franz, Philosophy of Science Association (PSA)
27. 2021 "Making Biodiversity Data Portals FAIR and CARE," with Steve Elliott, **ISHPSSB**
26. 2021 "AI for biodiversity Data," presenter and panelist with Atriya Sen, Nathan Upham, Nico Franz, Sara Beery, and Anuj Karpatne, 6th Annual Digital Data in Biodiversity Research Conference
25. 2021 "Focus on Platforms to Understanding Environmental Data Commons and Make Them Accessible," with Steve Elliott and Zoe Nyssa, **Commoning the Anthropocene**, Arizona State University
24. 2021 "Explaining Ambiguity in Scientific Language: Towards a Computational Approach," **Digital Studies of Digital Science**, Catholic University of Louvain, Belgium
23. 2020 "Explaining Differential Success in Biodiversity Knowledge Commons." **Environmental Evidence Summit**, November 2020.
22. 2020 "Interdisciplinary Responses to the Pandemic," Plenary Panelist, Association of Interdisciplinary Studies
21. 2020 "Fair but inequitable: the impacts of data governance on participatory biodiversity science." Presented with co-author Steve Elliott. **GEO BON Open Science Conference**.

20. 2020 "Taxonomically intelligent biodiversity data: Progress and next steps to scale up." Organized panel discussion and presented. Fourth Annual Digital Data in Biodiversity Research Conference.
19. 2020 "The Social Epistemology of Data Integration for Global Biodiversity Loss," *Philosophy of Biology At the Mountains* (POBAM)
18. 2019 "Decentralized but globally coordinated biodiversity data science." Philosophy in Biology and Medicine Conference, **University of Bordeaux**, France.
17. 2019 "Synthesis Research As Maintenance" (Declined due to schedule conflict). The Maintainers III, Washington DC.
16. 2019 "Naming Practices In and Outside Biology." Two-session symposium co-organized with Sabina Leonelli, **ISHPSSB**
15. 2019 "Coordinative Synthesis Research in Areas of Low Scientific Consensus" (Declined due to schedule conflict). Computational Methods and the Future of Science, University of Kansas.
14. 2018 "Evolutionary Species in Light of Population Genomics." PSA, Seattle.
13. 2018 "Standards of Evidence in Model Selection: A New Underdetermination Problem." History and Philosophy of Science Conference 2018: Chance and Probability in Science, University of Colorado Boulder, CO.
12. 2018 "A Synthetic Approach to Studying Scientific Problems." **Society for Philosophy of Science in Practice** (SPSP), Ghent, Belgium.
11. 2018 "Evolutionary Species in Light of Population Genomics." Pacific American Philosophy Association (APA) Conference, San Diego.
10. 2017 "Integrative Pluralism for Biological Function." Scientific Knowledge Under Pluralism, University of Pittsburgh, Pittsburgh, PA.
9. 2016 "Natural Kinds in Practice." **SPSP**, Glassboro, NJ.
8. 2016 "A Formal Model of Biological Lineages." Central APA Conference, Chicago.
7. 2015 "Species are Probabilistic Processes." **ISHPSSB**, Montreal, Canada.
6. 2014 "Mathematization and Methodology," with Scott Lidgard. History of Science Society (HSS), Chicago.
5. 2013 "Structuring Problems, Coordinating Research." **SPSP**, Toronto, Canada.
4. 2012 "Pragmatics of Prediction and Explanation." PSA, San Diego.
3. 2011 "Biological Information Justifies and Explains How Mechanisms Realize Functions." **ISHPSSB**, Salt Lake City, UT.
2. 2009 "Making Meaning of Mathematics: Computer Technology in Systematics and Taxonomy." **ISHPSSB**, Brisbane, Australia.
1. 2007 "Reconnecting Evolutionary and Descriptive Biology: A Network Effect in Computational and Systems Biology." **ISHPSSB**, Exeter, England.

## Teaching Experience

### ASU Courses

| | | | | |
|---|---|---|---|---|
| 2026 | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |

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|---|---|---|---|---|
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 452, 598 | Instructor |
| 2025 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | Big Data in Context | BIO/EVO/HPS 511 | Instructor |
| | Fall | Intro to AI in Biodiversity | BIO 494 | Co-Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 452, 598 | Instructor |
| 2024 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | Big Data in Context | BIO/EVO/HPS 598 | Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 452, 598 | Instructor |
| 2023 | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Evolution | BIO 345 | Co-Instructor |
| 2022 | Fall | Big Data in Context | BIO/EVO/HPS 598 | Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 494, 598 | Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| 2021 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | Big Data in Context | BIO/EVO/HPS 598 | Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 494, 598 | Instructor |
| | Spring | Creative Tools for Saving Biodiversity | BIO/HDA/HPS 494, 598 | Co-Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| 2020 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | Big Data in Context | BIO/EVO/HPS 598 | Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 394, 598 | Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Honors Thesis | BIO 493 | Instructor |
| | Spring | Undergraduate Research | BIO 495 | Instructor |
| 2019 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | History and Philosophy of Data | HPS/BIOS/EVOL 598 | Instructor |
| | Spring | Philosophy of Biology & Medicine | BIO/HPS/PHI 394, 598 | Instructor |
| | Spring | Biology and Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Advanced Reading Seminar | BIO 590 | Instructor |
| | Spring | Undergraduate Research | BIO 499 | Instructor |
| 2018 | Fall | Evolution | BIO 345 | Co-Instructor |
| | Fall | Biology & Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Philosophy of Science | HPS 314 | Instructor |
| | Spring | Biology & Society Lab | BIO/HPS 615 | Co-Instructor |
| 2017 | Fall | Biology & Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Biology & Society Lab | BIO/HPS 615 | Co-Instructor |
| | Spring | Advanced Reading Seminar | BIO 590 | Instructor |

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|---|---|---|---|---|
| 2016 | Fall | Philosophy of Biology | BIO 494/598, HPS 494/598, PHI 420/591 | Instructor |
| | Fall | Biology & Society Lab | BIO/HPS 615 | Co-Instructor |

## Mentorship

### Postdoctoral & Assistant Research Professor Mentoring, ASU (5 total: 2 current)

| | | | | |
|---|---|---|---|---|
| 5. | 2024–2026 | Presidential Postdoctoral Fellow (Co-Mentor) | Biology | Leke Hutchins |
| | | *Obtained tenure-track position* | | |
| 4. | 2022–2026 | Asst. Research Prof. | Social Science | Ute Brady |
| 3. | 2021–2022 | Postdoc | Computer Science | Prashant Gupta |
| | | *Obtained Data Engineer position at Amazon* | | |
| 2. | 2020–2022 | Asst. Research Prof. | Evolutionary Biology | Nathan Upham |
| | | *Obtained tenure-track position at ASU* | | |
| 1. | 2019–2020 | Postdoc | Computer Science | Atriya Sen |
| | | *Obtained tenure-track position at University of New Orleans* | | |

### Ph.D. Student Primary Advisor, ASU (12 total: 9 current)

| | | | | | |
|---|---|---|---|---|---|
| 12. | 2025–Present | Co-Advisor | PhD | Biology & Society | Nicole Brewer |
| 11. | 2025–Present | Advisor | PhD | Biology & Society | Brennan Hays |
| 10. | 2025–Present | Advisor | PhD | Hist & Phil of Sci | Abel Peña |
| 9. | 2025–Present | Co-Advisor | PhD | Biology & Society | Luis Gutierrez |
| 8. | 2024–Present | Co-Advisor | PhD | Biology & Society | Jocelyn Santiago |
| 7. | 2024–Present | Advisor | PhD | Biology & Society | Lívia Cruz |
| 6. | 2024–Present | Advisor | PhD | Evolutionary Biology | Caleb Powell |
| 5. | 2022–Present | Advisor | PhD | Biology & Society | Josh Hoskinson |
| 4. | 2019–Present | Advisor | PhD | Biology & Society | Charles Wallace |
| 3. | 2019–2024 | Advisor | PhD | Environmental Life Science | Katherine Weiss |
| | | *Obtained tenure-track Assistant Professor position at Marist College, NY* | | | |
| 2. | 2018–2024 | Advisor | PhD | Biology & Society | Elliott Millinor |
| | | *Earned DVM during Covid and left to start successful veterinarian practice* | | | |
| 1. | 2016–2021 | Advisor | PhD | Biology & Society | Kelle Dhein |
| | | *Obtained Lyman T. Johnson Postdoctoral Fellowship at University of Kentucky* | | | |

### M.S. Student Primary Advisor, ASU (3 total: 2 current)

| | | | | | |
|---|---|---|---|---|---|
| 3. | 2025–Present | Co-Advisor | MS | Biology | Brandon Ligon |
| 2. | 2024–Present | Advisor | MS | Biology | Jacqueline Dominguez |
| 1. | 2017–2018 | Advisor | MS | Statistics | Michael Cullan |
| | | *Obtained job as Data Scientist in Residence at The Data Incubator* | | | |

### ASU Graduate Student Committee Member, ASU (15 total: 6 current)

| | | | | | |
|---|---|---|---|---|---|
| 15. | 2025–Present | Committee | PhD | Hist & Phil of Sci | Matthew Tontonoz |
| 14. | 2025–Present | Committee | PhD | Statistics | John Ginos |
| 13. | 2024–Present | Committee | PhD | Applied Math | Trevor Reckell |

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| 12. | 2023–Present | Committee | PhD | Statistics | Antonio Campbell |
| 11. | 2023–Present | Committee | PhD | Biology & Society | Linda Howard |
| 10. | 2023–2025 | Committee | PhD | Evolutionary Biology | Ángel Robles Fernández |
| 9. | 2023–2024 | Committee | PhD | Evolutionary Biology | Samanta Orellana |
| 8. | 2022–2024 | Committee | MS | Biology | Courtney Grigsby |
| 7. | 2022–Present | Committee | PhD | Biology & Society | Risa Schnebly |
| 6. | 2022 | Committee | MS | Biology & Society | Baylee Edwards |
| 5. | 2021–2023 | Committee | PhD | Biology & Society | Taya Misheva |
| 4. | 2018–2023 | Committee | PhD | Biology & Society | Anna Guerrero |
| 3. | 2018 | Committee | MS | Biology & Society | Jerica Vie |
| 2. | 2017–2025 | Committee | PhD | Evolutionary Biology | Edward Gilbert |
| 1. | 2016–2019 | Committee | MS | Biology & Society | Sean Cohmer |

**Other Universities, Graduate Student Advising (2 total: 0 current)**

| | | | | | |
|---|---|---|---|---|---|
| 2. | 2023–2024 | Externship | MS | Conservation Medicine, Tufts University | Shawna Brechbill |
| 1. | 2022–2024 | Committee | PhD | Philosophy, U. of Arizona | Robert Lazo |

**Barrett Honors Undergraduate Thesis Director, ASU (14 total: 1 current)**

| | | | | |
|---|---|---|---|---|
| 14. | 2026–Present | Thesis Advisor | Biology | Madysen Eckes |
| 13. | 2024–2025 | Thesis Advisor | Biology | Mia Madine |
| 12. | 2023–2025 | Thesis Advisor | Biology | Anvita Makhija |
| | | *Enrolled in University of Michigan dental school* | | |
| 11. | 2023–2025 | Thesis Advisor | Biology | Leah Cotton |
| | | *Enrolled in MS in Biology program at ASU* | | |
| 10. | 2023–2025 | Thesis Advisor | Biology | Jordan Soward |
| | | *Applying for medical school* | | |
| 9. | 2023–2025 | Thesis Advisor | Biology | Jennifer Johnson |
| | | *Applying for medical school* | | |
| 8. | 2023–2024 | Thesis Advisor | Biology | Nikita Kumari |
| | | *Applying for medical school* | | |
| 7. | 2023–2025 | Thesis Advisor | Biology | Linnea Donovan |
| 6. | 2022–2023 | Thesis Advisor | Biology | Reilly Burton |
| | | *Obtained job as Clinical Research Coordinator at HonorHealth* | | |
| 5. | 2022–2023 | Thesis Advisor | Biology | Muhammad Tariq |
| | | *Enrolled in MS/MD at University of Arizona Medical School - Phoenix* | | |
| 4. | 2022–2023 | Thesis Advisor | Conservation Biology | Tanishq Jain |
| | | *Enrolled in Dual Masters of Urban Planning and Sustainability at ASU* | | |
| 3. | 2022–2023 | Thesis Advisor | Conservation Biology | Ally Finkbeiner |
| | | *Enrolled in Masters in Environmental Management at Duke University* | | |
| 2. | 2019–2020 | Thesis Advisor | Biology | Sylvia Karjala |
| | | *Enrolled in Masters in Education for Applied Behavioral Science* | | |

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| 1. | 2019–2020 | Thesis Advisor | Biology & Society | Sydney Fikse |
| | | *Obtained job as Behavioral Technician, Desert Choice Schools* | | |

**Barrett Honors Undergrad Thesis Committee Member, ASU (4 total: 1 current)**

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| 4. | 2025–2026 | Thesis 2nd Reader | Biology & Society | Akaash Surendra |
| 3. | 2022–2023 | Thesis 2nd Reader | Biology | Elisa Olofsson |
| 2. | 2021–2022 | Thesis 2nd Reader | Biology | Monica Lam |
| 1. | 2020–2021 | Thesis 2nd Reader | Biology | Andrew Sinclair |

**Undergraduate Research Mentor, ASU (43 total: 8 current)**

| | | | | |
|---|---|---|---|---|
| 43. | 2025–Present | Barrett Fellowship | Biology | Riona Nanzeeba |
| 42. | 2025–Present | Barrett Fellowship | Biology | Neha Kanjamala |
| 41. | 2025–Present | Barrett Fellowship | Biology | Madysen Eckes |
| 40. | 2025–Present | Barrett Fellowship | Biology | Avery Roland |
| 39. | 2025–Present | Barrett Fellowship | Biology | Annarose Fisler |
| 38. | 2025–Present | Barrett Fellowship | Biology | Tyler May |
| 37. | 2024 | Barrett Fellowship | Biology | Chinmai Giddigam |
| 36. | 2024 | Barrett Fellowship | Biology | Sathvika Damera |
| 35. | 2024–Present | Research Asst. | Biology | Mia Hules |
| 34. | 2024 | Research Asst. | Data Science | Chastity Barnes |
| 33. | 2024–Present | Research Asst. | Biology | Abigayle Cole |
| 32. | 2023–2024 | Research Asst. | Biology | Jacqueline Dominguez |
| 31. | 2023–2024 | Research Asst. | Biology | Hanna Rodrigo |
| 30. | 2023–2024 | Research Asst. | Biology | Rohan Patel |
| 29. | 2023 | Research Asst. | Biology | Jillian Amend |
| 28. | 2023–2024 | Research Asst. | Biology | Sophia Koutsogiannis |
| 27. | 2023–2024 | Barrett Fellowship | Biology | Leah Cotton |
| 26. | 2023 | Research Asst. | Biology | Hannah Spraggins |
| 25. | 2023–2025 | Research Asst. | Biology | Gwenyth Calaro |
| 24. | 2023–2024 | Research Asst. | Biology | Gabrielle Suarez |
| 23. | 2023 | Research Asst. | Biology | Jennifer Johnson |
| 22. | 2022–2023 | Research Asst. | Biology | Jordan Sowards |
| 21 | 2022–2023 | Research Asst. | Environmental Science | Zoe Gentry |
| 20. | 2022–2023 | Research Asst. | Biology | Briana Gonzales |
| 19. | 2022–2023 | Research Asst. | Biology | Casie Navarro |
| 18. | 2022–2024 | Barrett Fellowship | Biology | Ahmad Katib |
| 17. | 2022–2024 | Research Asst. | Biology | Anvita Makhija |
| 16. | 2022–2023 | Barrett Fellowship | Biology | Shawna Brechbill |
| 15. | 2022–2023 | Research Asst. | Biology | Natalie Wade |
| 13. | 2022 | Research Asst. | Biology | Niles Clipson |
| 12. | 2022 | Research Asst. | Biology | Mariah Beltran |
| 11. | 2022 | Research Asst. | Biology | Jackelyn Lobatos |

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| 10. | 2022 | Research Asst. | Biology | Shahad Ayad |
| 9. | 2022 | Research Asst. | Conservation Biology | Diana Nguyen |
| 8. | 2021–2022 | Research Asst. | Biology | Samantha Naman |
| 7. | 2021–2022 | Research Asst. | Biology | Savage Hess |
| 6. | 2021–2022 | Research Asst. | Biology | Nicole Veeder |
| 5. | 2021–2022 | Research Asst. | Biology | Reane Raj Kaur |
| 4. | 2020–2021 | Research Asst. | Biology | Vinit Karkathar |
| 3. | 2020 | WAESO advisor | Biology | D'Kiehl Cole-Cash |
| 2. | Spring 2019 | Research Asst. | Biology | Davis Cammann |
| 1. | Spring 2019 | Research Asst. | Conservation Biology | Michael Renner |

### Teaching Professional Development

| | | |
|---|---|---|
| 2021 | ASU | RISE Inclusive Teaching Fellowship Training |
| 2020 | ASU | Graduate College Teaching Fellowship |
| 2019 | ASU | ACUE Effective Teaching Certification |
| 2019 | ASU | Training in Course Assessment |
| 2018 | ASU | Midterm Course Consultation with Joshua Caulkins, SOLS |
| 2018 | ASU | Biospine Development Meetings for BIO 345 Evolution |
| 2017 | ASU | Doing Active Learning, TeachT@lk Workshop |
| 2016 | ASU | Workshop on Designing Authentic Learning Outcomes |
| 2014 | Univ. of Michigan | Teaching Academy |
| 2011 | Univ. of Chicago | Seminar on the Survey Course |
| 2011 | Univ. of Chicago | Individual Teaching Consultation |
| 2011 | Univ. of Chicago | Workshop on Using the Blackboard for Effective Teaching |
| 2010 | Univ. of Chicago | Seminar on Course Design |
| 2010 | Univ. of Chicago | Conference on "Thinking through Teaching" |
| 2010 | Univ. of Chicago | Midterm Course Review, Teaching and Learning Center |

## Service & Professional Activities

### Positions

| | | | |
|---|---|---|---|
| 2024–Present | Director | SOLS | History and Philosophy of Science Program |
| 2024–Present | Member | SOLS | Graduate Programs Committee |
| 2024–2025 | Interim Director | SOLS | Biodiversity Knowledge Integration Center |
| 2024–2025 | Member | SOLS | Research Initiatives Committee |
| 2024–Present | Advisory Board | USA | CARE Principles Accelnet, PI Stephanie Russo Carroll |
| 2023–Present | Contributor | Int'l | Indigenous Data and Repositories Consortium |
| 2022–Present | Panel Reviewer | USA | National Science Foundation |
| 2022–2024 | Member | Int'l | Indigenous Data Sharing and Management Working Group, Earth BioGenome Project |
| 2021–2025 | Contributor | Int'l | IEEE Standards Working Group, Indigenous Data Provenance |

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| 2021–Present | Program Committee Member | SOLS | Computational Life Sciences Certificate, School of Life Sciences (SOLS) |
| 2021–Present | Program Lead | SOLS | Big Data in Biodiversity, Center for Biodiversity Outcomes |
| 2020–Present | ASU Co-Lead | ASU | Governing Board, Red List of Threatened Species Partnership, International Union for Conservation of Nature |
| 2018–2024 | Associate Director | SOLS | Biodiversity Knowledge Integration Center |
| 2018–Present | Advisory Board | SOLS | Life Science Ethics Initiative |
| 2018–2023 | Co-Director | SOLS | Biodiversity Data Science Initiative |
| F2017, S2019 | Graduate Director | SOLS | History and Philosophy of Science PhD Program |
| 2018–2019 | Reviewer | ASU | ARCS Fellowship Program |
| 2017–2018 | Co-organizer | SOLS | Center for Biology & Society Conversation Series |

## Search Committees

| | | |
|---|---|---|
| 2025 | Committee Member | Vertebrate Collections Manager, School of Life Sciences |
| 2024 | Committee Member | Full Professor, Biodiversity Genomics, School of Life Sciences |
| 2024 | Committee Member | Director of Biocollections, School of Life Sciences |
| 2024 | Committee Member | Assistant Professor, Ecology of Global Change, School of Life Sciences |
| 2024 | Committee Member | Presidential Postdoctoral Fellowship, School of Life Sciences |
| 2022 | Chair | Lecturer in History of Life Sciences |
| 2021 | Committee Member | Lecturer in Bioethics |
| 2020 | Committee Member | Open Rank Tenure Track Faculty, Center for Evolutionary Medicine |
| 2019 | Committee Member | Assistant Professor, Center for Evolutionary Medicine |

## Workshops Organized

| | |
|---|---|
| 2022 | "Alliance 2022 Workshop," Virtual, international 2-day workshop, organized as part of the Alliance for Biodiversity Knowledge Governance Models project. |
| 2019 | "Closing the Feedback Loop on Decision Making and Biodiversity Data," ASU |
| 2018 | "Catalyzing the Taxonomic Intelligence Knowledge Base," with Nico Franz and David Remsen, Marine Biological Laboratory (MBL) |
| 2017 | "The Future of Systematics in Data-Centric Biology," with Nico Franz and David Remsen, MBL |
| 2013 | "Is Adding More Data Always Better?" Field Museum |

## Organizational Affiliations

International Society for the History, Philosophy, and Social Studies of Biology

Philosophy of Science Association

Society for Philosophy of Science in Practice

American Philosophical Association

Biodiversity Information Standards (TDWG)

Research Data Alliance

## Refereeing

Acta Biotheoretica; Applied Ontology; Biology and Philosophy; Biomolecules; BioScience; British Journal for Philosophy of Science; Conservation Science and Practice; Entropy; European Journal of Taxonomy; History and Philosophy of Life Sciences; International Journal of the Commons; International Journal of Digital Earth; JMIR Public Health and Surveillance; Journal of the History of Biology; MIT Press; Pacific Symposium on Biocomputing; Perspectives in Plant Ecology; Philosophy of Science; Philosophy, Theory, and Practice in Biology; PLoS One; Social Science Information; Springer Science+Business; Studies in the History and Philosophy of Biological and Biomedical Sciences; Synthese; Theoria; University of Chicago Press.