

CURRICULUM VITAE

Nathan Steadman Upham, Ph.D.

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EDUCATION

2014	Ph.D.	Evolutionary Biology	University of Chicago, Chicago, IL.
2010	M.S.	Evolutionary Biology	University of Chicago.
2008	M.A.	Biology	Occidental College, Los Angeles, CA. (Cal Tech courses, 2007)
2006	B.A.	Biology	Occidental College. (Univ East Anglia exchange, 2004)

PROFESSIONAL APPOINTMENTS

2022-present.	Assistant Professor, Arizona State University , School of Life Sciences.
2021-present.	Senior Global Futures Scientist, ASU Julie Ann Wrigley Global Futures Laboratory .
2014-present.	Research Associate, Field Museum of Natural History , Division of Mammals.
2020-2022.	Assistant Research Professor, Arizona State University , School of Life Sciences.
2020-2022.	Associate Curator of Mammals, ASU Natural History Collections .
2020-2024.	Research Associate, Yale University , Dept. of Ecology & Evolutionary Biology.
2015-2020.	Postdoctoral Associate, Yale University , Dept. of Ecology & Evolutionary Biology. - Walter Jetz lab: NSF-funded VertLife Terrestrial project, focus on the mammal tree of life.
2014-2015.	Postdoctoral Fellow, McMaster University , Department of Biology. - Ben Evans, Brian Golding labs: evolution of vizcacha rats (the largest mammalian genome).
2008-2014.	Doctoral Researcher, University of Chicago , Committee on Evolutionary Biology. - Bruce Patterson lab (Field Museum): biogeography of Neotropical mammals.
2006-2008.	Curatorial Associate, Moore Laboratory of Zoology , Occidental College. - Responsible for care and maintenance of 65,000+ bird and mammal specimens.

RESEARCH INTERESTS

My research focuses on mammal phylogenetics and ecology. I investigate how new species are formed (speciation), how they die out (extinction), and how they interact to share genes (population genetics), transmit pathogens (disease ecology), and generate biodiversity (ecological diversification). I study wild mammals, especially desert rodents, to uncover the ecological origins of evolutionary dynamics in the mammal tree of life. Locally, I conduct field projects in forested mountains of the Madrean Sky Islands and urban desert remnants of metro Phoenix. There we investigate the extent to which host gene flow predicts the sharing of viral, fungal, and bacterial symbionts, aiming to uncover long-term modes of cross-species transmission.

**GRANTS AND FELLOWSHIPS****Active grants**

- pending. **Arizona Biomedical Research Centre (ABRC) - New Investigator Award**, “Rodent hosts of the *Coccidioides* fungus that causes Valley fever” in response to RFGA2026-03 NIA. Role: PI, with Co-Is D. Kollath and E. Florsheim. Proposed: \$225,000 direct costs (2026-2029).
2026. **Arizona Department of Health Services**, “Using the Arizona Pathogen Genomics Analytics Platform (APGAP) to establish a database of environmental *Coccidioides* genomes to advance epidemiology of Valley fever”. Role: PI with Co-PI D. Kollath. Awarded: \$90,000 direct costs (Jan–Jun 2026).

2025. **U.S. National Institutes of Health, NIGMS** “Mammal-virus interactions at global to local scales” R35 in response to PAR-23-145, Maximizing Investigators Research Award (MIRA) for Early-Stage Investigators. Role: PI. Awarded: \$1,250,000 direct costs (2025-2029), [1R35GM156919](#).
2023. **U.S. National Science Foundation / National Institutes of Health**, “DMS/NIGMS 2: Spatial, Multi-Host Petri Net Models for Zoonotic Disease Forecasting” to NSF 22-600, Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and Mathematical Sciences. Role: Co-I with PI B. Sterner and Co-I P. Jevtic. Awarded: \$789,242 direct costs (2023-2027), [1R01GM152813](#).
2023. **U.S. National Science Foundation**, “Collaborative Research: Ranges: Building capacity to extend mammal specimens from western North America” to NSF 21-501, DBI-ICBR (Capacity): Biocollections. Role: PI with Co-PI D. Rowsey, along with 20 institutions. Awarded: \$11,752 direct costs (2023-2027), [DBI2228395](#) (award for digitizing specimen tags and field notes in the ASU Mammalogy Collection).

Previous grants

2021. **U.S. National Institutes of Health**, “Intelligently predicting viral spillover risks from bats and other wild mammals” R21 in response to PA-19-068, Secondary Analysis of Existing Datasets for Advancing Infectious Disease Research. Role: PI with D. Reeder; also B. Sterner, A. Sen, N. Franz, A. Varsani, and J. Rees. Awarded: \$301,232 direct costs (2021-2023), [1R21AI164268](#).
2018. **U.S. National Socio-Environmental Synthesis Center (SESYNC)**, Thematic Pursuit, “The death and life of biodiversity: Modeling extinction and resilience on islands”. Role: co-PI with S. Cooke, L. Dávalos, A. Mychajliw, & A. Soto-Centeno. Awarded: \$30,000 for 3 meetings.
2014. **Royal Ontario Museum**, Schad Conservation Grant, “Integrating ecological and economic tools for sustainable conservation: Mammals as indicators of ecosystem and societal health in the Dominican Republic”. Role: co-author with B. Lim as PI. Awarded: \$30,000 for fieldwork.
2012. **Field Museum of Natural History**, Armour Graduate Fellowship, \$26,000 stipend.
2011. **U. S. National Science Foundation**, Doctoral Dissertation Improvement Grant (DDIG), “Fossils and phylogeny: investigating the timing of diversification in a diverse lineage of Neotropical rodents (Caviomorpha: Octodontoidea)”. Role: co-PI, B. Patterson. Awarded: \$15,000 (2011-2013), [DEB-1110805](#).
2005. **Norris Foundation**, Norris Scholars Undergraduate Fellowship, “Molecular phylogenetics of the dark kangaroo mouse, *Microdipodops megacephalus*,” \$3000 project, \$8000 stipend.
2004. **Howard Hughes Medical Institute**, Undergraduate Summer Fellow, \$200 project, \$4150 stipend.

HONORS AND AWARDS

2026. **U.S. National Academy of Sciences**, [Frontiers of Science Fellow](#) – selected to join 80 young scientists from industry, academia, and government for a three-day workshop & symposium.
2023. **American Society of Mammalogists**, President’s Special Award for Service.
2022. **Ebbe Nielsen Challenge, Global Biodiversity Information Facility**, [2nd place award](#) for the project [GBIF LACS: GBIF Literature Abstract Classification System](#) developed with Ángel Luis Robles Fernández.
2019. **Art in Research Competition, Yale Office of the Provost**, [1st place in two categories & overall best entry](#).
2012. **American Society of Mammalogists**, A. Brazier Howell Graduate Student Honorarium for “Diversification and biogeography of a major lineage of Neotropical rodents (Caviomorpha: Octodontoidea)”.
2006. **American Society of Mammalogists**, Undergraduate Student Research Honoraria for “Phylogeography of the dark kangaroo mouse, *Microdipodops megacephalus*”.
2006. **Occidental College**, graduated *magna cum laude* in Biology.
2005. **Occidental College**, Kurata Student Award for Outstanding Senior in Biology.

PUBLICATIONS

- [Google Scholar](#), h-index of 27 | i10-index of 43 | total citations: 5,069 (as of 14 Apr 2026) | [Research Gate](#) pdfs
- 52 peer-reviewed articles in total (21 as first or last/corresponding author: article number **underlined bold**)
 - 7 publications pending (preprints or in review/revision; 4 as first/senior author)
 - *first or co-first author, ^senior/corresponding author (if meets either criterion: number **underlined bold**)

Preprints / In Review / Revision

- ^Rowsey, D.M., Smith, S.M., **Zamora Chavez, L.J.**, **Rivera, D.C.**, **Hess, S.C.**, Jones, M.F., Bucci, M.E., Mohammadian, S., Alston, J.M., **Baez, J.R.**, Vargas, K.L., ^**Upham, N.S.** A holistic survey of small mammal diversity across an iconic Madrean Sky Island (Santa Catalina Mountains, Arizona, USA). *bioRxiv* [preprint]. <https://doi.org/10.64898/2026.03.15.711934>. In review at *J Mammalogy*. Data/code: https://github.com/rowseydm/sc_mamm_survey
- Rivera, D.C.** and ^**Upham, N.S.** Uncovering historical small mammal biodiversity among the Madrean Sky Islands. *bioRxiv* [preprint] <https://doi.org/10.1101/2025.09.04.674278>. In review at *Journal of Mammalogy*. Data/code: https://github.com/uphamLab/RiveraUpham_madreanSmallMammals/
- *^**Upham, N.S.**, Esselstyn, J. A., and Jetz, W. Ecological causes of mammal diversity. *bioRxiv* [preprint]. <https://doi.org/10.1101/504803>. In revision at *Evolution*.
- *^Stewart, T.A., Yoo, I., and *^**Upham, N.S.** The coevolution of mammae number and litter size. *bioRxiv* [preprint]. <https://doi.org/10.1101/2020.10.08.331983> In revision at *Proc Roy Soc B*.
- Abraham, J.O., O'Brien, K., **Upham, N.S.**, Jesmer, B.R., Bibi, F., and Faith, J.T. Migratory behavior increases extinction risk within ungulates. In revision at *PLOS Biology*.
- Pyron, R., Moura, M., Bowie, R., Brito, S., Ceron, K., Colston, T., Esselstyn, J., Guedes, J., Guralnick, R., Lima, H., Mooers, A., Moroti, M., Paiva, M., Pennell, M., Pirani, R., Souza, J., Tonini, J., **Upham, N.S.**, Xavier, J. P., & Jetz, W. Human threats interact with evolutionary history to reshape the tetrapod tree of life. *Research Square* [preprint of earlier version]. <https://doi.org/10.21203/rs.3.rs-7556378/v1> In Review at *Science*.
- Morales, A.E., Liang, Y., Thomas, W.R., Leushkin, E.V., Larkin, D.M., Brown, T., Fromm, B., Hand, S.J., Hughes, G.M., Jones, M.F., ...[101 other authors]..., **Upham, N.S.**, Uvizl, M., Vallo, P., Vazquez, J.M., Wang, L.-F., Watson, L.C., Whitby, D., Winkler, S., Winter, Y., Yohe, L.R., Zavodna, M., Zhang, N., Zhao, H., Ray, D.A., Vernes, S.C., Dávalos, L.M., Hiller, M., & Teeling, E.C. Reference genomes and fossils rewrite bat family- level phylogeny and global biogeography. In review at *Science*. [embargoed]

Peer-Reviewed Publications

52. Hafner, J.C., **Upham, N.S.**, Gowen-Huang, F., and Light, J.E. (2025). Cryptic species and taxonomic revision of kangaroo mice, the rodent genus *Microdipodops*. *Journal of Mammalogy*, 106(6), 1342–1371. <https://doi.org/10.1093/jmammal/gyaf070>
51. McLean, B.S., Bloom, D., Davis, E.B., Guralnick, R.P., Santana, S.E., Allen, J.M., Amarilla-Stevens, H., Bell, K.C., Blackburn, D.C., Bradley, J.E., Bradley, R.D., Carling, M.D., Coconis, A., Colella, J.P., Conroy, C.J., Cook, J.A., de Bastos Cruz Machado, H., Demboski, J.R., Derieg, K.M., Doll, A., Dumbacher, J.P., Duncan, W.D., Dunnun, J.L., Feldman, C., Ferguson, A.W., Fitzgerald, K.E., Flannery, M.E., Hood, K., Hornsby, A.D., Krejsa, D., LaFrance, R., Light, J.E., Pavan, S.E., Peterson, S., Raniszewski, A., Rickart, E.A., Robson, S., Rowe, R.J., Rowsey, D.M., Semerdjian, A., Stankowich, T., Steger, L., Stevens, R., Thibault, K.M., Thompson, C.W., **Upham, N.S.**, Wilkins, A., and Wommack, E.A. (2025). Extending mammal specimens with their essential phenotypic traits. *Journal of Mammalogy*, gyaf062. <https://doi.org/10.1093/jmammal/gyaf062>
- 50. Burgin, C.J.**, Zijlstra, J., **Becker, M.**, **Handika, H.**, **Widness, J.**, Alston, J.M., Liphardt, S., Huckaby, D.G., and ^**Upham, N.S.** (2025). How many species of mammals are there now? Updates and trends in taxonomic, nomenclatural, and geographic knowledge. *Journal of Mammalogy*, 106(5), 1082–1117. <https://doi.org/10.1093/jmammal/gyaf047> | Media: [Arizona Horizons PBS interview](#); [A-Z-Animals](#); [KCRA Sacramento](#); [ASU News](#)
49. Paul, D. L., Thompson, C. W., Arroyo, L., Nuñez, G. B., Castro-Arellano, I., Colella, J. P., Cook, J. A., Cove, M. V., Dearborn, J., de la Sancha, N. U., Derieg, K., Dunnun, J. L., Ferguson, A. W., Fitzgerald, K., Foat, C., Frank, L. E., Galbreath, K., Gonzalez, D. F., Hawkins, R. K., Herrera, T., Hey, A., Hope, A. G., Hornsby, A. D., Ibanez IV, D., Keller, O., Krejsa, D., Mahoney, K., Malaney, J., McDonough, M. M., McElrath, T. C., Mathis, V., Mayfield-Meyer, T., Mosley, I., Ordóñez-Garza, N., Phelps, K., Platt II, R. N., Pletcher, J., Rinsland, H. H., Rupprecht, C. E., Speer, K. A., Steger, L., **Upham, N.S.**, White III, R. A., Wiens, B. J., Wooten, L. and Soltis, P. S. (2025). Harnessing natural history collections for collaborative pandemic preparedness. *BioScience*, biaf035. <https://doi.org/10.1093/biosci/biaf035>

48. Finkbeiner, A., Khatib, A., **Upham, N.S.**, & Sterner, B. (2025). 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>
47. Afonso Silva, A.C., Maliet, O., Aristide, L., Nogués-Bravo, D., **Upham, N.S.**, Jetz, W., Morlon, H. (2025). Negative global-scale association between genetic diversity and speciation rates in mammals. *Nature Communications*, 16(1), 1796. <https://doi.org/10.1038/s41467-025-56820-y>
- 46. *Hernández Hernández, N.A., ^*Robles Fernández, A.L., and ^Upham, N.S.** (2025). Environmental suitability throughout the late Quaternary explains population genetic diversity. *Ecography*, (3), e07202. <https://doi.org/10.1111/ecog.07202>
- 45.** Bjornson, S., Verbruggen, H., **^Upham, N.S.**, and **^Steenwyk, J.** (2024). Reticulate Evolution: Detection and Utility in the Phylogenomics Era. *Molecular Phylogenetics and Evolution*. <https://doi.org/10.1016/j.ympev.2024.108197>
44. Moura, M.R., Ceron, K., Guedes, J.J.M., Chen-Zhao, R., Sica, Y.V., Hart, J., Dorman, W., Gonzalez-del-Pliego, P., Ranipeta, A., Catenazzi, A., Werneck, F.P., Toledo, L.F., **Upham, N.S.**, Tonini, J.F.R., Colston, T.J., Guralnick, R., Bowie, R.C.K., Pyron, R.A., Jetz, W. (2024). A phylogeny-informed characterisation of global tetrapod traits addresses data gaps and biases. *PLOS Biology*, 22(7), e3002658. <https://doi.org/10.1371/journal.pbio.3002658>. Data and code: [Zenodo](#)
- 43.** Marsh, C.J., Sica, Y.V., **^Upham, N.S.**, & **^Jetz, W.** (2024). Response to [Arbogast and Kerhoulas](#) [re Marsh et al. 2022]. *Journal of Mammalogy*, gya019. <https://doi.org/10.1093/jmammal/gyae019>
42. Lund, M.C., Larsen, B.B., Rowsey, D.M., Otto, H.W., Gryseels, S., Kraberger, S., Custer, J.M., Steger, L., Yule, K.M., Harris, R.E., Worobey, M., Doorslaer, K.V., **Upham, N.S.**, & Varsani, A. (2023). Using archived and biocollection samples towards deciphering the DNA virus diversity associated with rodent species in the families Cricetidae and Heteromyidae. *Virology*, 585, 42–60. <https://doi.org/10.1016/j.virol.2023.05.006>
41. Alshawi, R.R., Sen, A., **Upham, N.S.**, and Sterner, B. (2023). A Novel Dataset Towards Extracting Virus-Host Interactions. In: *Proceedings of the Second Workshop on Information Extraction from Scientific Publications*, edited by T. Ghosal, F. Grezes, T. Allen, K. Lockhart, A. Accomazzi, and S. Blanco-Cuaresma, 37–42. Bali, Indonesia: Assoc for Computational Linguistics. <https://doi.org/10.18653/v1/2023.wiesp-1.5>.
40. Harding, C., Larsen, B. B., Otto, H. W., Potticary, A. L., Kraberger, S., Custer, J. M., Suazo, C., **Upham, N. S.**, Worobey, M., Van Doorslaer, K., & Varsani, A. (2023). Diverse DNA virus genomes identified in fecal samples of Mexican free-tailed bats (*Tadarida brasiliensis*) captured in Chiricahua Mountains of southeast Arizona (USA). *Virology*, 580, 98–111. <https://doi.org/10.1016/j.virol.2023.02.004>
39. Michielsen, N. M., Goodman, S. M., Soarimalala, V., Geer, A. A. E. van der, Dávalos, L. M., Saville, G. I., **Upham, N.S.**, & Valente, L. (2023). The macroevolutionary impact of recent and imminent mammal extinctions on Madagascar. *Nature Communications*. <https://doi.org/10.1038/s41467-022-35215-3>. Press: Over 200 news stories, including [The Guardian](#), [IFLscience](#).
38. Harding, C., Larsen, B.B., Gryseels, S., Otto, H.W., Suazo, C., Kraberger, S., **Upham, N.S.**, Worobey, M., Van Doorslaer, K., Varsani, A. (2022). Discovery of three cycloviruses in fecal samples from silver-haired bats (*Lasionycteris noctivagans*) in Arizona (USA). *Archives of Virology*. [doi: 10.1007/s00705-022-05574-9](https://doi.org/10.1007/s00705-022-05574-9)
37. Balk M.A., Deck J., Emery K.F., Walls R.L., Reuter D., LaFrance R., Arroyo-Cabrales J., Barrett P., Blois J., Boileau A., Brenskelle L., Cannarozzi N.R., Cruz J.A., Dávalos L.M., de la Sancha N.U., Gyawali P., Hantak M.M., Hopkins S., Kohli B., King J.N., Koo M.S., Lawing A.M., Machado H., McCrane S.M., McLean B., Morgan M.E., Pilaar Birch S., Reed D., Reitz E.J., Sewnath N., **Upham N.S.**, Villaseñor A., Yohe L., Davis E.B., Guralnick R.P. (2022). A solution to the challenges of interdisciplinary aggregation and use of specimen-level trait data. *iScience*, 105101. <https://doi.org/10.1016/j.isci.2022.105101>
36. Abraham, J., **Upham, N.S.**, Serrano, A.D., Jesmer, B. (2022). Evolutionary causes and consequences of ungulate migration. *Nature Ecology & Evolution*. <https://doi.org/10.1038/s41559-022-01749-4>. Data: [Dryad](#). Press: [News & Views](#), [NPR Phoenix \(KJZZ\)](#).
- 35.** Marsh, C.J., Sica, Y.V., Burgin, C.J., Dorman, W.A....[142 other authors]..., **^Upham, N.S.**, **^Jetz, W.** (2022). Expert range maps of global mammal distributions harmonised to three taxonomic authorities. *Journal of Biogeography*. <https://doi.org/10.1111/jbi.14330>

34. Munstermann M.J., Heim N.A., McCauley D.J., Payne J.L., **Upham N.S.**, Wang S.C., Knope M.L. (2022). A global ecological signal of extinction risk in terrestrial vertebrates. *Conservation Biology*. 36:3 e13852. <https://doi.org/10.1111/cobi.13852>
- 33.** ***Upham N.S.**, Poelen J.H., Paul D., Groom Q.J., Simmons N.B., Vanhove M.P.M., Bertolino S., Reeder D.M., Bastos-Silveira C., Sen A., Sterner B., Franz N.M., Guidoti M., Penev L., Agosti D. (2021). Liberating host-virus knowledge from biological dark data. *The Lancet Planetary Health*. [https://doi.org/10.1016/S2542-5196\(21\)00196-0](https://doi.org/10.1016/S2542-5196(21)00196-0). Press: [ASU News](#)
- 32.** ***Upham N.S.**, Esselstyn J.A., ^Jetz W. (2021). Molecules and fossils tell distinct yet complementary stories of mammal diversification. *Current Biology*. <https://doi.org/10.1016/j.cub.2021.07.012>. Data: [Github](#).
31. Greenberg D.A., Pyron R.A., Johnson L.G.W., **Upham N.S.**, Jetz W., Mooers A.Ø. (2021). Evolutionary legacies in contemporary tetrapod imperilment. *Ecology Letters*. <https://doi.org/10.1111/ele.13868>
30. Groom Q., Adriaens T., Bertolino S., Phelps K., Poelen J., Reeder D., Richardson D., Simmons N., and **Upham N.S.** (2021). Holistic understanding of contemporary ecosystems requires integration of data on domesticated, captive and cultivated organisms. *Biodiversity Data Journal*. 9:e65371. <https://doi.org/10.3897/BDJ.9.e65371>
- 29.** ^Sen, A., ^Sterner, B., ^Franz, N., ^Powel, C., and ^**Upham, N.S.** (2021). Combining Machine Learning & Reasoning for Biodiversity Data Intelligence. *Proceedings of the AAAI Conference on Artificial Intelligence*, 35: 14911-14919. <https://ojs.aaai.org/index.php/AAAI/article/view/17750>
28. Turvey, S.T., Duncan, C., **Upham, N.S.**, Harrison, X., Dávalos, L.M. (2021). Where the wild things were: intrinsic and extrinsic extinction predictors in the world's most depleted mammal fauna. *Proceedings of the Royal Society B: Biological Sciences*. 288: 20202905. <https://doi.org/10.1098/rspb.2020.2905>
27. Cisse O.H., Ma L., Dekker J.P., Khil P.P., Youn J.-H., Brenchley J.M., Blair R.V., Pahar B., Chabe M., Rompay K.K.A.V., Keesler R., Sukura A., Hirsch V., Kutty G., Liu Y., Peng L., Chen J., Song J., Weissenbacher-Lang C., **Upham N.S.**, Stajich J.E., Cuomo C.A., Cushion M.T., Kovacs J.A. (2021). Genomic insights into the host specific adaptation of the *Pneumocystis* genus and emergence of the human pathogen *Pneumocystis jirovecii*. *Communications Biology* 4: 1-14. <https://doi.org/10.1038/s42003-021-01799-7>
26. Sterner B., Elliott S., **Upham N.S.**, Franz N.M. (2021). Bats, objectivity, and viral spillover risk. *History & Philosophy of the Life Sciences* 43:7 <https://doi.org/10.1007/s40656-021-00366-x>
- 25.** ^Burgin, C. J., Widness, J., and ^**Upham, N. S.** (2020). Introduction. [Pp. 23-40](#) In: *Illustrated Checklist of the Mammals of the World* (C. J. Burgin, D. E. Wilson, R. A. Mittermeier, A. B. Rylands, T. E. Lacher, and W. Sechrest, eds.). Lynx Ediciones, Barcelona.
24. Alhajeri, B. H., Fourcade, Y., **Upham, N. S.**, and Alhaddad, H. (2020). A global test of Allen's rule in rodents. *Global Ecology and Biogeography*. <https://doi.org/10.1111/geb.13198>
23. Cook, J.A., Arai, S., Armién, B., Bates, J., Carrion Bonilla, C.A., de Souza Cortez, M.B., Dunnum, J.L., Ferguson, A.W., Anwarali Khan, F.A., Paul, D.L., Reeder, D.M., Simmons, N.B., Thiers, B.M., Thompson, C.W., **Upham, N.S.**, Vanhove, M.P.M., Webala, P.W., Weksler, M., Yanagihara, R., Soltis, P.S. (2020). Integrating biodiversity infrastructure into pathogen discovery and mitigation of epidemic infectious diseases. *BioScience* <https://doi.org/10.1093/biosci/biaa064>. Press: [The Conversation](#).
- 22.** ***Upham N.S.**, Esselstyn J.A., ^Jetz, W. (2019). Inferring the mammal tree: species-level sets of phylogenies for questions in ecology, evolution, and conservation. *PLOS Biology*. [17\(12\)](#): e3000494. [Cover art](#). Data: [Github](#), [Dryad](#). Press: [Cosmos](#), [ScienceDaily](#), [Phys.org](#), [Twitter](#).
21. McDonough, M.M., **Upham, N.S.**, and Ferguson, A.W. (2019). Nurturing the generations: the role of the American Society of Mammalogists in supporting students and early career scientists. *Journal of Mammalogy* [100](#): 690-700.
20. Maestri, R., **Upham, N.S.**, and Patterson B.D. (2019). Tracing the diversification history of a Neogene rodent invasion into South America. *Ecography* [42](#): 683-695.
- 19.** *Burgin, C.J., *Colella, J.P., Kahn, P.K. and ^**Upham, N.S.** (2018). How many species of mammals are there? *Journal of Mammalogy* [99](#): 1-14. Press: [IFLscience](#), [International Business Times](#), [Phys.org](#), [EurekAlert!](#), [Teinteresa \(Madrid\)](#).
- 18.** (alphabetical) *Cooke, S.B. *Dávalos, L.M., *Mychajliw, A.M., *Turvey, S.T., and ***Upham, N.S.** (2017). Anthropogenic extinction dominates Holocene declines of West Indian mammals. *Annual Review of*

- Ecology, Evolution, and Systematics* [48: 301-327](#). Press: [Newsweek](#), [New Scientist](#), [LiveScience](#), [Lab Manager](#), [Phys.org](#).
- 17.** *[^]**Upham, N.S.** and Borroto-Páez, R. (2017). Molecular phylogeography of endangered Cuban hutias within the Caribbean radiation of capromyid rodents. *Journal of Mammalogy* [98: 950-963](#).
 - 16.** *[^]**Upham, N.S.** (2017). Past and present of insular Caribbean mammals: understanding Holocene extinctions to inform modern biodiversity conservation. *Journal of Mammalogy* [98: 913-917](#). Special Feature, including [cover image](#) by NSU.
 15. Lim, B.K., Loureiro, L.O., **Upham, N.S.**, and Brocca, J.L. (2017). Phylogeography of Dominican Republic bats and systematic relationships in Neotropics. *Journal of Mammalogy* [98: 986-993](#).
 - 14.** [^]Evans, B.J., [^]**Upham, N.S.**, Golding, G.B., Ojeda, R.A., and Ojeda, A.A. (2017). Evolution of the largest mammalian genome. *Genome Biology and Evolution* [9: 1711-1724](#). Press: [ScienceDaily](#), [CBC Radio](#), [The Molecular Ecologist](#), [Yale Scientific](#).
 13. Maestri, R., Monteiro, L. R., Fornel, R., **Upham, N.S.**, Patterson B.D., and Freitas, T.R.O. (2017). The ecology of a continental evolutionary radiation: Is the radiation of sigmodontine rodents adaptive? *Evolution* [71: 610-632](#). Press: [Evolution Digest](#).
 12. Fabre, P.-H., **Upham, N.S.**, Emmons, L.H., Justy, F., Leite, Y.L.R., Loss, A.C., Orlando, L., Tilak, M.-K., Patterson, B.D., and Douzery, E.J.P. (2017). Mitogenomic phylogeny, diversification, and biogeography of South American spiny rats. *Molecular Biology and Evolution*. [34: 613-633](#).
 11. Lacher, T. E., Murphy, W. J., Rogan, J., Smith, A. T., and **Upham, N. S.** (2016). Evolution, phylogeny, ecology, and conservation of the clade Glires: Lagomorpha and Rodentia. [Pp. 15-26](#) In: *Handbook of the Mammals of the World: Volume 6. Lagomorphs and Rodents I*. (D. E. Wilson, T.E. Lacher, Jr., and R. A. Mittermeier, eds.). Lynx Ediciones, Barcelona.
 - 10.** *[^]**Upham, N.S.** and Patterson, B.D. (2015). Evolution of caviomorph rodents: a complete phylogeny and timetree for living genera. [Pp. 63-120](#) In: *Biology of caviomorph rodents: diversity and evolution* (A.I. Vassallo and D. Antenucci, eds.). SAREM Series A, Buenos Aires, Argentina.
 9. D'Elía, G., Teta, P., **Upham, N.S.**, Patterson, B.D., and Pardiñas, U.F.J. (2015). Description of a new soft-haired mouse, genus *Abrothrix* (Sigmodontinae), from the temperate Valdivian rainforest. *Journal of Mammalogy* [96: 839-853](#). Press: [Diario Austral](#).
 - 8.** [^]Patterson, B. D. and [^]**Upham, N.S.** (2014). A newly recognized family of mammals from the Horn of Africa, the Heterocephalidae (Rodentia: Ctenohystrica). *Zoological Journal of the Linnean Society* [172: 942-963](#). Press: [BrainScoop](#), [Field Museum Blog](#).
 - 7.** [^]Patterson, B. D. and [^]**Upham, N.S.** (2014). A study in contrasts: two extensive Neotropical radiations. *Frontiers in Ecology and Evolution* [2: 44](#).
 - 6.** *[^]**Upham, N.S.**, Ojala-Barbour, R., Brito, J., Velazco P.M., and [^]Patterson, B.D. (2013). Transitions between Andean and Amazonian centers of endemism in the radiation of some arboreal rodents. *BMC Evolutionary Biology* [13:191](#). Press: [UChicago](#).
 - 5.** *[^]**Upham, N.S.**, and Hafner, J.C. (2013). Do nocturnal rodents in the Great Basin Desert avoid moonlight? *Journal of Mammalogy*. [94: 59-72](#). Press: [ScienceLife Blog](#).
 4. Light, J.E., Hafner, J.C., **Upham, N.S.**, and Reddington, E. (2013). Conservation genetics of kangaroo mice, genus *Microdipodops*. *Journal of Mammalian Evolution* [20: 129-146](#).
 - 3.** *[^]**Upham, N.S.** and [^]Patterson, B.D. (2012). Diversification and biogeography of the Neotropical caviomorph lineage Octodontoidea (Rodentia: Hystricognathi). *Molecular Phylogenetics and Evolution* [63: 417-429](#).
 2. Hafner, J.C., and **Upham, N.S.** (2011). Phylogeography of the dark kangaroo mouse, *Microdipodops megacephalus*: cryptic lineages and dispersal routes in North America's Great Basin. *Journal of Biogeography* [38: 1077-1097](#).
 1. Hafner, J.C., **Upham, N.S.**, Reddington, E. and Torres, C.W. (2008). Phylogeography of the pallid kangaroo mouse, *Microdipodops pallidus*: a sand-obligate endemic of the Great Basin, western North America. *Journal of Biogeography* [35: 2102-2118](#).

Invited Commentaries

7. *[^]**Upham, N.S.**, & [^]Landis, M.J. (2023). Genomics expands the mammalverse. *Science*, *380*, 358–359. <https://doi.org/10.1126/science.add2209>. Code: [Github](#) | [Zenodo](#). Press: [ASU](#) | [ScienceNews](#) | [Nature](#)

Citations: 14 Journal impact factor₂₀₂₂: 56.9

Role: PI, co-corresponding – designed and performed analyses of global mammal genome sampling, reviewed six articles in the *Science* special feature on the Zoonomia project

6. Francis, C. M., Simmons, N. B., Van Cakenberghe, V., **Upham, N. S.**, and Burgin C., on behalf of the Global Bat Taxonomy Working Group of the IUCN SSC Bat Specialist Group. (2023). *On the taxonomy of Lasiurus*. Zenodo. <https://doi.org/10.5281/zenodo.7696845>
5. **Upham, N. S.** and Francis, C. M. on behalf of the Global Bat Taxonomy Working Group of the IUCN SSC Bat Specialist Group. (2022). *On the taxonomy of Myotis keenii and Myotis evotis*. Zenodo. <https://doi.org/10.5281/zenodo.7336341>
4. Soto-Centeno, A., **Upham, N. S.**, Mancina, C., Lim, B., and Timm, R. (2022). Obituary: Gilberto Silva Taboada (1927–2022). *Journal of Mammalogy*. <https://doi.org/10.1093/jmammal/gyac030>
3. Dávalos, L. M., and **Upham, N. S.** (2020). Coronavirus was low risk until it wasn't. Climate change is the same. *Medium*, 27 Mar 2020.
2. Ceriaco, L. M. et al. and 490 signatories (incl **Upham, N. S.**) (2017). Photography-based taxonomy is inadequate, unnecessary, and potentially harmful for biological sciences. *Zootaxa*. [4196: 435-445](https://doi.org/10.11646/zootaxa.4196.4.35).
1. Pérez, M. E., and **Upham, N. S.** (2016) [Review] Mammals of South America, Volume 2: Rodents. *Ameghiniana* [53: 523-525](https://doi.org/10.5710/AMGH.2016.53.5).

Published Abstracts

2024. **Upham, N.S.** and Poelen, J. Taxonomic data objects for communicating the meaning of species names. *Biodiversity Information Science and Standards*, 8, e139413. <https://doi.org/10.3897/biss.8.139413>
2022. Prado, L. R., **Upham, N.S.**, Franz, N., & Sterner, B. Extending Recognition for Taxonomic Curation Beyond the Traditional Authorities. *Biodiversity Information Science and Standards*, 6, e94252. <https://doi.org/10.3897/biss.6.94252>
2022. **Upham, N.S.**, Powell, C., Prado, L., Franz, N., and Sterner, B. Extended Taxonomic Curation: Moving beyond species lists to linking species data. *Biodiversity Information Science and Standards*, 6, e93670. <https://doi.org/10.3897/biss.6.93670>
2022. Groom, Q., Adriaens, T., Bertolino, S., Phelps, K., Poelen, J., Reeder, D., Richardson, D., Simmons, N., Trekels, M., and **Upham, N.S.** The Importance of Collecting and Archiving Data on Domestic and Cultivated Organisms. *Biodiversity Information Science and Standards*, 6, e90864. <https://doi.org/10.3897/biss.6.90864>
2021. Sterner B., **Upham N.S.**, Gupta P., Powell C., Franz N. Wanted: Standards for FAIR taxonomic concept representations and relationships. *Biodiversity Information Science and Standards*. 5:e75587. <https://doi.org/10.3897/biss.5.75587>
2020. **Upham N.S.**, Agosti D., Poelen J., Penev L., Paul D., Reeder D., Simmons N.B., Csorba G., Groom Q., Dimitrova M., Miller J. Liberating Biodiversity Data From COVID-19 Lockdown: Toward a knowledge hub for mammal host-virus information. *Biodiversity Information Science and Standards* 4: e59199. <https://doi.org/10.3897/biss.4.59199>
2020. Sen A., Franz N., Sterner B., **Upham N.S.** The Automated Taxonomic Concept Reasoner. *Biodiversity Information Science and Standards*. 4:e59074. <https://doi.org/10.3897/biss.4.59074>
2020. Sterner B., **Upham N.S.**, Sen A., Franz N. Avenues into Integration: Communicating taxonomic intelligence from sender to recipient. *Biodiversity Information Science and Standards* 4: e59006. <https://doi.org/10.3897/biss.4.59006>
2020. Franz N., Sterner B., **Upham N.S.**, and Hernández K.C. Redesigning the Trading Zone between Systematics and Conservation: Insights from Malagasy mouse lemur classifications, 1982 to present. *Biodiversity Information Science and Standards* 4: e59234. <https://doi.org/10.3897/biss.4.59234>

Data Publications

- 2024-2026. Sherman, A. C., Poelen, J. H., Agosti, D., Geiselman, C. K., **Upham, N.S.**, Simmons, N. B., Willoughby, A. R., Zijlstra, J. S., Phelps, K., Reeder, D., Groom, Q. J., Montauban, C., Oliveira, H. F. M.,

- Morales, A., Burgin, C. J., & Tanshi, I. 2024. Bat Literature Project (BatLit, <https://batlit.org>) (v0.1-v0.7) [Data set]. Zenodo: <https://doi.org/10.5281/zenodo.14662695>
- 2023-2025. Sherman, A., Geiselman, C., Poelen, J., Simmons, N., Reeder, D., **Upham, N.S.**, & Phelps, K. A Standardized Review of Bat Names Across Multiple Taxonomic Authorities (v0.1-v0.5) [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.7915721>
2020. Poelen J, **Upham N. S.**, Agosti D, Ruschel T, Guidoti M, Reeder D, et al. CETAF-DiSCCo/COVID19-TAF biodiversity-related knowledge hub working group: indexed biotic interactions and review summary. *Zenodo*. <http://doi.org/10.5281/zenodo.3839098>
2020. Mast A.R., Paul D.L., Rios N., Krimmel E.R., Bruhn R., Shorthouse D.P., Simmons N.B., **Upham N.S.**, Soltis P. 2020. Rapid Creation of a Data Product for the World's Specimens of Horseshoe Bats and Relatives, a Known Reservoir for Coronaviruses. *Zenodo*. <https://doi.org/10.5281/zenodo.4047200>
2020. **Upham, N. S.** Natural history specimens collected and/or identified and deposited. [Data set]. *Zenodo*. <https://doi.org/10.5281/zenodo.3858103>
- 2018-2025. Mammal Diversity Database Team (Project Leader: **Upham, N.S.**; Researchers: Burgin, C., Widness, J., Liphardt, S., Becker, M., Huckaby, D., Zijlstra, J.). *Mammal Diversity Database* (v1.0–v2.3) [Dataset]. Zenodo. <https://doi.org/10.5281/zenodo.4139722>

Other Works

2025. Hinde, K., Amorim, C. E. G., Anderson, C. N., Andreasen, G., Armstrong, E., Beasley, M., Berliner, J., Brokaw, A. F., Brown, D., Brubaker-Wittman, L., Brunstrum, J., Burt, N., Casillas, M., Chavez Ramirez, C., Chen, A., Chestnut, T., Claypool, K., Coffman, R., Connors, P. K., ... **Upham, N.S.**, Varner, J., Villanea, F., Weber, J., Wilson, M., Willcocks, E., Wrensford, K., & Yates, W. (2025). *Compendium of the 13th annual March Mammal Madness Tournament 2025. Proceedings of the Noble Zoological Society, Series C: Performance Sciences*, 4, 1–211. <https://hdl.handle.net/2286/R.2.N.203136>
2024. Kennerley, R., Lacher, T., **Upham, N.S.**, and Turvey, S. Highlighting the importance of IUCN Species Survival Commission Specialist Groups at the International Mammalogical Congress. *Oryx*, 58(1), 9–10. <https://doi.org/10.1017/S0030605323001540>
2024. Hinde, K., Amorim, C.E.G., Anderson, C.N., Andreasen, G., Armstrong, E., Beasley, M., Brokaw, A.F., Brubaker-Wittman, L., Brunstrum, J., Burt, N., Casillas, M., Chen, A., Chestnut, T., Coffman, R., Connors, P.K., Costantini, A., Dasari, M., Dietrick, J., Ditelberg, C.F., ... **Upham, N.S.**, Varner, J., Villanea, F., Weber, J., Wilson, M., Willcocks, E., Wrensford, K., Yates, W. (2024). *Compendium of the 12th Annual March Mammal Madness Tournament 2024. Proceedings of the Noble Zoological Society Series C: Performance Sciences*, 3, 1–227. <https://hdl.handle.net/2286/R.2.N.197060>

Theses

2014. **Upham, N. S.** *Ecological diversification and biogeography in the Neogene: Evolution of a major lineage of American and Caribbean rodents (Caviomorpha, Octodontoidea)*. Unpubl. Ph.D. dissertation, University of Chicago, xvi + 272 pp. [Download](#) full text. [Abstract published](#) in *Mastozoología Neotropical* **21**: 193-194.
2008. **Upham, N. S.** *Rodent activity in relation to moonlight in sandy and open habitats of the Great Basin Desert*. Unpubl. M.A. thesis, Occidental College, viii + 65 pp. [Download](#) full text.
2006. **Upham, N. S.** *Phylogeography of the dark kangaroo mouse, *Microdipodops megacephalus**. Unpubl. B.A. thesis, Occidental College, 35 pp.

TEACHING

Arizona State University

Instructor of record

Evolution, BIO 345 (Spring 2021 – 170 students; 2023, 2024, 2025 – 280 students; 2026 – 220 students)

- Co-instruction with Silvie Huijben (2023-2026) and Derek Tucker (2021); I work with the BIO 345 teaching team to coordinate our lecture, recitation, and exam materials

Phylogenetic Biology and Analysis, BIO 498/549 (Fall 2025, 30 students)

- Self-designed course; practical and hands-on Bayesian and maximum-likelihood approaches to phylogenetics

Applied Phylogenetics, BIO 498/598 (Fall 2023, 10 students + 2 auditing)

- Self-designed course; practical and hands-on Bayesian approaches to phylogenetics

Undergraduate Research, BIO 495 (Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024, Spring 2025)

Inclusive Excellence Teaching Course (improving the Evolution course; Summer 2021).

Guest lectures

Advanced Molecular and Cellular Biology II, MCB 556 (Spring 2026)

Research Areas of Evolution, EVO 610 (Spring 2023, Spring 2024)

Environmental Life Sciences Seminar, ELS 501 (Fall 2022)

Mammalogy, BIO 472 (Fall 2022)

Topics in Evolution, EVO 601 (Fall 2021)

Biocollections Summer Program (Summer 2021, 2022)

Yale University

Postdoctoral Teaching Scholar, Foundations in Biology series: Evolution & Ecology (Fall 2019)

Scientific Teaching Fellow, Biological Sciences (Spring 2016)

McMaster University

Biodiversity, Evolution & Humanity, Department of Biology (Fall 2014)

Primary co-instructor; lectured and designed exams for two sections of an introductory course; 700 students

University of Chicago

Ecology & Evolution in the Southwest, Department of Biological Sciences (Spring 2012)

Biogeography, Department of Biological Sciences (Winter 2011)

Insect Ecology & Evolution, Department of Biological Sciences (Fall 2010)

Mammalian Ecology, Department of Biological Sciences (Spring 2009)

Teaching Assistant Training Course, Department of Biological Sciences (Fall 2009)

Occidental College

Evolutionary Biology, Biology Department (Fall 2007, Fall 2005)

MENTORING

Arizona State University

Primary Graduate Advisor

- Ryan Nguyen (2025-present), MS in Biology program.
 - o Project: Phylogeny of global Rodentia; rodent-virus interactions.
- Julia Nitschmann (2025-present), Evolutionary Biology PhD program.
 - o Project: Gene flow relative to dispersal ability among Madrean Sky Island small mammals.
- Morgan Pierce (2023-present; co-advised with Sharon Hall), MS in Biology program.
 - o Project: Gene flow in metro Phoenix urban rodents. Awards: 2024 Summer Fellowship from the Central Arizona-Phoenix LTER; 2025 Grant-in-Aid from the American Society of Mammalogists.
- Luisa Zamora Chavez (2023-present), MS in Biology program.
 - o Project: Valley Fever and other fungi in the lungs of Arizona desert rodents. Awards: 2023-2026 NSF Graduate Research Fellowship; 2026 Student Engagement Program Fellow to attend the Western Association of Fish and Wildlife Agencies (WAFWA) conference in Boise, ID.
- Gilma De Leon (2022-present), 4+1 MS in Biology program.
 - o Project: Diet and microbiome diversity of *Neotoma* woodrats in the Madrean Sky Islands. Awards: Honorable Mention Award in Ecology and Conservation, 2023 SOLS Undergraduate Research Symposium.
- Damien Rivera (2022-present), Evolutionary Biology PhD program.

- Project: Biodiversity and gene flow of Madrean Sky Island small mammals. Awards: 2024 and 2025 Grant-in-Aid from the American Society of Mammalogists.
- Dr. [Ángel Luis Robles Fernández](#) (2021-2025; co-advised w/ Nico Franz), Evolutionary Biology PhD program.
 - Doctoral Thesis: “[Ecointeraction: A Machine Learning Framework to Predict Host-Parasite Interactions Through Ecological and Evolutionary Covariates](#)”. Awards: Recipient of the 2021 Edward and Linda Birge Travel Award, School of Life Sciences; 2nd place in the [2022 GBIF Ebbe Nielsen Challenge](#); 2023 Grant-in-Aid Award from the American Society of Mammalogists.

Undergraduate Directed Research Advisor

- [Michael Rivers](#) (2025-present). Project: Digitizing specimen tag data of small mammals.
- [Olivia Tureki](#) (2025-present). Project: Molecular biology of wild rodent hosts and symbionts.
- [Alexander Fenlon](#) (2025-present). Project: Phylogenomics of high-elevation deer mice (*Peromyscus*) in Arizona. Awards: 2025 Undergraduate Honorarium from the American Society of Mammalogists
- [Nicole Veeder](#) (2021-2022). Project: Mammal-virus interactions in public data.
- [Reane Kaur](#) (2022). Project: Mammal-virus interactions in public data.

Postdoctoral Researcher / Consultant Advisor

- [Dr. Jonathan Hughes](#) (2025-present). Project: Genome evolution of desert rodents and their viruses.

Postbaccalaureate / Staff Research Advisor

- [Jessica Neumaier](#) (2024-present). Project: Elevational gradient of wild rodent-virus interactions.
- [Alexandra Dubé](#) (2024-2025). Project: Rodent-virus interactions in fecal and liver tissue.
- [Norma Alicia Hernández-Hernández](#) (2023-2024). Project: Geographic range maps of global mammals.
- [Justin Baez](#) (2022-2024; now PhD student at University Chicago, Committee on Evolutionary Biology). Projects: Population genomics of Tassel-eared Squirrels (*Sciurus aberti*); Rates of bat species diversification from the Eocene-Oligocene fossil record; Description of new Eocene bat species from the Powder Wash Formation (co-supervisor with Matt Jones). Awards: Honorable Mention in the 2024 NSF Graduate Research Fellowship competition.

Thesis Committee Member

- [Belayneh Mengesha](#) (2026-present), PhD in Biology program, ASU (Snyder-Macker / Schneider-Crease labs)
- [Cedar Siemann](#) (2025-present), PhD in Evolutionary Biology program, ASU (Matt Jones lab). Project: TBA
- [Aishwarya Patel](#) (2025-present), PhD in Microbiology program, ASU (Taichi Suzuki lab). Project: “Host-Microbe Codiversification-Linking Mechanisms to Human Evolution and Health”
- [Roberto A. Ruiz Ramírez](#) (2024-present), PhD Program at the Instituto de Ecología, A. C. (INECOL), Veracruz, Mexico. Project: “Assessment of knowledge gaps in bats: A macroecological perspective”
- [Antonio Meza](#) (2023-present), PhD in Evolutionary Biology program, ASU (Emilia Martins lab). Project: “Form, Function, and Fossils of the Mandible of *Sceloporus* lizards”
- [Caleb Powell](#) (2022-present), PhD in Biology program, ASU (Nico Franz lab). Project: “Nor Any Drop To Drink: Addressing Data Scarcity in Automated Analysis of Natural History Records”
- [Michael Lund](#) (2022-2023), MS in Biology program, ASU (Arvind Varsani lab). Project: “Metagenomic analysis of DNA virus diversity in the Rodent families Cricetidae and Heteromyidae”
- [Savage Hess](#) (2022-2023), MS in Biology program, ASU (Arvind Varsani lab). Project: “Identification of novel circular DNA viruses from coyote (*Canis latrans*) scat”.

Undergraduate Honors Thesis Committee Member

- [Muhammad Ubaid](#) (2026-present). Project: “A systematic review of viruses in the bank vole, *Myodes glareolus*, and its related implications including viral richness and spillover risk”
- [Linnea Donovan](#) (2025-present). Project: “Exploring alternative hypotheses about rodent reservoir host species of the Sin Nombre virus by annotating host-virus networks with measures of evidence quality”
- [Briana Le](#) (2025-present). Project: “Comparison of Cerebellar Brain Anatomy in Rodent Families in Urban and Rural Environments”

- [Mia Madine](#) (2025-present). Project: “Designing a Systematic Review of Coccidioidomycosis Infection”
- [Jordan Sowards](#) (2024-2025). Project: “Rodent-Virus Metadata Extraction”
- [Anvita Makhija](#) (2024-2025). Project: “Evaluating the Prevalence of Puumala Virus within the Population of Bank Voles or *Clethrionomys glareolus* in the United States”
- [Jennifer Johnson](#) (2024-2025). Project: “Understanding the distribution and prevalence of viruses impacting the rodent species *Microtus arvalis* and the implications for human health”
- [Nikita Kumari](#) (2023-2024). Project: “Understanding Reservoir Dynamics in the Genus *Peromyscus*”
- [Reilly Burton](#) (2022-2023). Project: “Usutu Envelope: In silico analysis of viral amino acids in zoonotic viral capsid proteins”
- [Ally Finkbeiner](#) (2022-2023). Project: “The distribution and prevalence of viruses in the rodent species *Peromyscus maniculatus* and related implications for human health”
- [Muhammad Tariq](#) (2022-2023). Project: “The distribution and prevalence of viruses in four *Peromyscus* rodent species and related implications for human health”
- [Tanishq Jain](#) (2022-2023). Project: “The distribution and prevalence of viruses in *Peromyscus leucopus*”

Before ASU

Undergraduate Student Research Mentor

- Western Connecticut State University student, systematics of rodents (2020-2021).
- iNaturalist intern & Ursinus College student, taxonomy research on mammals (2019).
- Yale University student, biodiversity research for Mammal Diversity Database project (2018).
- Yale University student, summer biodiversity research for the Map of Life project (2016).
- Loyola University student (at FMNH); summer & honors research on bat phylogenetics (2012).
- Cornell University student (at FMNH); summer project on rodent morphometrics (2012).
- University of Wisconsin-Madison student (at FMNH); project on rodent life-history traits (2011).
- Occidental College student (at MLZ); honors research on kangaroo mice phylogenetics (2006-2007).

OUTREACH

Tempe, AZ

- Genetics Team, [March Mammal Madness](#) (2022, 2023, 2024, 2025, 2026).
- Salt River Pima-Maricopa Indian Community’s Earth Day celebration, table for Upham Lab (2025)
- ASU Open Door, table for Upham Lab (2025).
- Presented mammal specimens, ASU Earth and Space Open House, School of Earth & Space Exploration (2022).

New Haven, CT

- Science Fair judge at Worthington Hooker Middle School (2017, 2018).

Hamilton, Canada

- Weekly tutor, Empowerment Squared program for Liberian immigrants (2014-15).
- Weekly tutor, Reading Buddies & Homework Help, Hamilton Public Library (2013-14).

Chicago, IL

- Program Facilitator, Project Exploration’s “Brothers4Science” program for 6-8th grade boys at Ariel Community Academy (10 weeks, 2012).
- Host for “Talk to the Scientist Hour” programs, Field Museum’s Pritzker Laboratory (2012-13).
- Curated content for digital touch-screen, Field Museum’s DNA Discovery Center exhibit (2012-13).
- Lecturer on anatomy for Project Exploration’s Junior Paleontologists course (8-12th gr.; 2012).
- Discussed science careers with 7th grade class, Young Women’s Leadership School (2012).
- Lecturer on mammalogy for Project Exploration’s All Girls Expedition course (8-12th gr.; 2011).
- Presented specimens to 7-8th graders, Project Exploration’s Sisters4Science courses (2010-2012).
- Weekly tutoring in 8th grade geometry, Canter Middle School (2010).
- Public presentation of mammal specimens, Field Museum Member’s Nights (2009-12).

INVITED WORKING GROUPS

- 2024-present. Disentis Roadmap Working Group, stemming from the [Bouchout+10 Symposium](#) in Disentis, Switzerland in which a plan for the next 10 years of liberating biodiversity knowledge from publications is being assembled relative to global informatics platforms, stakeholders, and research priorities.
- 2020-present. [Bat Eco-Interactions Working Group](#) (part of the Global Union of Bat Diversity Networks, [GBatNet](#)), consisting of weekly meetings of biodiversity collections-oriented scientists in the US, Europe, and South America working to liberate bat-related ecological data. Developed from the Consortium of European Taxonomic Facilities-Distributed System of Scientific Collections ([CETAF-DiSSCo](#)) [COVID-19 Taskforce](#).
- 2020-present. [Museums and Emerging Pathogens in the Americas \(MEPA\)](#), group of researchers, policy makers, and advanced students from 9 countries in Central, North, and South America.
- 2018-2025. North American Rodents Landscapes Ecology & Evolution (NARLEE) Working Group, adding rodent evolution expertise to 30-person RCN of geologists, modelers, biologists.
2020. [ViralMuse Taskforce](#), group for multi-disciplinary conversation about linking natural history collections with public health efforts, especially regarding host-pathogen relationships.
2017. State of the Tree of Life (SoToL) Working Group, invited to represent Mammalia in 40-person group spanning microbes, sponges, fungi, plants, and animals (Field Museum of Natural History meeting).

INVITED TALKS

2026. Cary Institute of Ecosystem Studies, Scientific Seminar Series [forthcoming]
2026. New Mexico State University, Dept of Fish, Wildlife, & Conservation Ecology [forthcoming]
2026. University of California Berkeley, Museum of Vertebrate Zoology, student invited speaker: *Symbiotic interactions and mammal evolution across scales*
2026. University of Michigan, Dept of Ecology & Evol Biology: *Querying the mammalverse of species interactions*
2025. Rodent 2K Genome Initiative, monthly online meeting: *Why taxonomy matters for (rodent) genomic analyses*
2025. Arizona State University, Institutional Biosafety Committee, Field Research seminars: *Querying the mammalverse from global to local scales*
2024. University of California, Riverside, Department of Biology Seminar Series: *Querying the mammalverse of genomes, ecologies, and species*
2023. Proxima Symposium, Iniciativa Proxima Brazilian Foundation, Porto Alegre, Brazil [declined]
2023. University of South Florida, Integrative Biology Seminar Series: *Mammal-centric spillover risk modeling: species meaning and ecological context are key*
2022. EcoHealth Alliance, EHA Seminar Series: *Mammal-centric spillover risk modeling: species meaning and ecological context are key*
2022. Swiss Institute for Bioinformatics, SIB Literature Serves group (SIBiLS): *Developing a system to predict emerging infectious diseases*
2022. Arizona State University, Molecular and Cellular Biology Seminar Series: *Evolution of the Largest Mammalian Genome — and other tails/tales.*
2022. Museums and Pathogens in the Americas (MEPA): *Pathogen spillover from wild mammals to humans: taxonomic and ecological data curation are the key to accurate risk modeling.*
2022. University of Oslo, Natural History Museum: *Mammal species, evolution, and ecology.*
2022. Angelo State University, Department of Biology: *Ecology, pathogens, and the mammal tree of life.*
2021. Argentine Mammal Society (Jornadas Argentinas de Mastozoología), main talk for the [e-JAM.21 event](#): *Mammal species, ecology, and turnover.*
2021. McMaster University, Department of Biology: *Mammal species, ecology, and turnover.*
2021. Brazilian Mammal Society (Sociedade Brasileira de Mastozoologia), keynote for the [MOCÓ event](#): *Mammal species, ecology, and turnover.*
2021. University of Colorado at Denver, Department of Integrative Biology: *Mammal evolutionary past as a key to the ecology of present-day species.*
2021. University of Memphis, Department of Biological Sciences, Annual Graduate Student Invited Seminar (BioGSA): *Mammal evolutionary past as a key to connecting the ecological present.*
2021. Arizona State University, School of Life Sciences, New Faculty Seminar series: *Mammal evolutionary past as a key to the ecological present.*

2020. TDWG 2020 Virtual Conference. Symposium on “[Using Collections to Mitigate and Prevent Zoonotic Disease](#)”: *Liberating host-virus data from COVID-19 lockdown*.
2020. [CETAF-DiSCCo Covid-19 Taskforce](#) public event. *Biodiversity knowledge hub for Covid-19 and preventing future pandemics*. [Link](#) to YouTube-streamed talk (10 minutes).
2020. Yale University, Ruslan Medzhitov Lab. *Mammalian tree of life as an essential tool for comparative biology*.
2020. Yale University, Yale Institute for Biospheric Studies (YIBS) seminar series. *Ecological causes of uneven mammalian diversity*.
2019. Universidade de São Paulo, Departamento de Ecologia. *Ecological causes of birth and death in the mammal tree of life*.
2019. Yale-CAPES Seminars in Biomedical Sciences, Porto Alegre, Brazil. *Mammalian tree of life as an essential tool for comparative biology*.
2019. Rutgers University Newark, Biological Sciences. *Ecological causes of speciation and species richness in the mammal tree of life*.
2019. Western Connecticut State University, Department of Biological and Environmental Sciences. *Why are there so many rodents? And other (r)evolutionary questions*.
2019. Smithsonian Institution, National Museum of Natural History. *Uniting micro- and macro-evolution in the Mammalia tree of life*.
2019. Field Museum of Natural History, A. Watson Armour seminar series. *Ecology unites micro- and macro-evolution in the mammal tree of life*.
2019. Portland State University, Department of Biology seminar series. *Mammalian tree of life and the inverse latitudinal gradient of speciation rates*.
2019. Natural History Museum of Los Angeles County, Research & Collections seminar series. *Mammalian tree of life from ancient lineages to modern backyards*.
2019. Columbia University, E3B Department seminar series. *The ecology of species diversification in the mammal tree of life*.
2017. University of New Hampshire, College of Life Sciences and Agriculture. *Untangling the bank: Mammalian evolution across scales to understand rates & drivers of species diversification*.
2016. University of Oklahoma, Sam Noble Museum of Natural History. *Mammalian evolution across scales: Untangling rates and drivers of diversification in species, clades, and higher taxa*.
2014. Instituto Argentino de Investigaciones de Zonas Aridas (IADIZA), Mendoza-CONICET (delivered in English with Spanish slides). *Pruebas para la radiación adaptativa y limitaciones ecológicas en un linaje principal de roedores*.
2012. Universidade Federal do Espírito Santo, Departamento de Ciências Biológicas, Vitória, Brasil (delivered in English with Portuguese slides). *Diversificação molecular e morfológica de Neotropical roedor linhagem maior (Caviomorpha: Octodontoidea)*.

CONFERENCE PARTICIPATION

Arizona State University

Student Posters Presented

2026. Morgan Pierce (with S.J. Hall, N.S. Upham). Rodent Diversity and Gene Flow in an Arid Metropolitan Area. CAP LTER All Scientists Meeting, Tempe, AZ.
2025. Jessica N. Neumaier (with A. Dubé, R.M. Nguyen, S. Kraberger, A. Varsani, N.S. Upham). Rodent-virus interactions over an elevational gradient in the Santa Catalina Mountains, Arizona. American Society of Mammalogists meeting, West Lafayette, IN.
2025. Ryan M. Nguyen (with N.S. Upham). Gnawing at the past: Phylogeny of all living rodent species inferred using 31 genes. American Society of Mammalogists meeting, West Lafayette, IN.
2024. Morgan Pierce (with S.J. Hall, N.S. Upham). Rodent genetic diversity and gene flow across urban desert remnants in metro Phoenix. American Society of Mammalogists meeting, Boulder, CO.
2024. Luisa Zamora Chavez (with D.M. Rowsey, N.S. Upham). Uncovering rodent lung fungal community dynamics across the Madrean Sky Islands. American Society of Mammalogists meeting, Boulder, CO.

2024. Sophia Koutsogiannis (with N.S. Upham, D.M. Rowsey). Bringing dark mammalian trait data to light through standardized digitization. CAP LTER All-Hands Meeting, Phoenix, AZ.
2024. Damien Rivera (with N.S. Upham). Historic small mammal biodiversity among the Madrean sky islands. Joint Annual Meeting of the Wildlife Societies of Arizona and New Mexico, Flagstaff, AZ.
2024. Luisa Zamora Chavez (with D.M. Rowsey, N.S. Upham). From altitudes to archives: insights from pilot study. Joint Annual Meeting of the Wildlife Societies of Arizona and New Mexico, Flagstaff, AZ.
2023. Justin Baez (with N.S. Upham, M.F. Jones) Rates of species diversification of bats (Chiroptera) compared with paleobiotic and paleoenvironmental variables. Society for Vertebrate Paleontology Meetings, Cleveland, OH.
2023. Damien Rivera (with N.S. Upham). Uncovering historic rodent biodiversity among the Madrean sky islands. International Mammalogical Congress, Anchorage, AK.
2023. Gilma De Leon (with N.S. Upham). Preliminary study of the Mexican woodrat (*Neotoma mexicana*) diet and gut microbiome. International Mammalogical Congress, Anchorage, AK.
2023. Justin Baez (with M.F. Jones, N.S. Upham) Rates of species diversification of bats (Chiroptera) near the Early Eocene Climatic Optimum. Evolution Meetings, Albuquerque, NM.

Student Talks Presented

2025. Gilma J. De Leon (with N.S. Upham). Gut microbiome of wild *Neotoma mexicana* and *Neotoma albigula* populations in Arizona, USA. American Society of Mammalogists meeting, West Lafayette, IN.
2025. Damien Rivera (with N.S. Upham). Genetic diversity and connectivity of Brush Mice in the Madrean Sky Islands. American Society of Mammalogists meeting, West Lafayette, IN.
2025. Luisa Zamora Chavez (with D.M. Rowsey, N.S. Upham). Uncovering wild rodent lung fungal community dynamics in a Madrean Sky Island. American Society of Mammal., West Lafayette, IN.
2025. Morgan Pierce (with S. Hall, N.S. Upham). Rodent diversity and gene flow across urban desert remnants in Metro Phoenix. American Society of Mammalogists meeting, West Lafayette, IN.
2025. Alexander Fenlon (with B. Larsen, M. Prebus, A. Cortés-Hernandez, N.S. Upham, and D. Rowsey). Who, really, lives here? Species boundaries of montane *Peromyscus* in the Madrean Sky Islands. American Society of Mammalogists meeting, West Lafayette, IN.
2025. Damien Rivera (with N.S. Upham). Genetic diversity and connectivity of Brush Mice in the Madrean Sky Islands. Joint Annual Meeting of the Wildlife Societies of Arizona & New Mexico, Albuquerque, NM.
2025. Luisa Zamora Chavez (with D.M. Rowsey, N.S. Upham). Uncovering wild rodent lung fungal community dynamics in a Madrean Sky Island. Joint Annual Meeting of the Wildlife Societies of Arizona & New Mexico, Albuquerque, NM.
2024. Damien Rivera (with N.S. Upham). Genetic Diversity and Connectivity of Brush Mice (*Peromyscus boylii*) in the Madrean Sky Islands. American Society of Mammalogists meeting, Boulder, CO.
2024. Justin Baez (with M.F. Jones, N.S. Upham). Rates of species diversification of bats (Chiroptera) compared with paleobiotic and paleoenvironmental variables. American Society of Mammalogists meeting, Boulder, CO.
2024. Ángel Luis Robles Fernández (with N.A.H. Hernández, N.S. Upham). SPA: A predictive biogeographical framework to explain population differentiation through the prevalence of environmental suitability. International Biogeography Meetings, Prague, Czech Republic.
2022. Ángel Luis Robles Fernández (with N.S. Upham). Modeling rodent-virus interactions in North America from different biodiversity dimensions through machine learning. American Society of Mammalogists Meetings, Tucson, AZ.

My Papers Presented

2025. Living Data / Datos Vivos 2025, Bogotá, Colombia — virtual (oral). *Why taxonomic splits matter for bat biodiversity and viral risk analyses.*
2025. American Society of Mammalogists 104th annual meeting, West Lafayette, IN (oral). *Grading system for comparing integrative taxonomic evidence of species boundaries.*

2024. North American Society for Bat Research (NASBR) annual meeting, Guadalajara, Mexico (oral). *Why taxonomic splits matter for bat biodiversity and viral risk analyses.*
2024. SPNHC-TDWG 2024, Okinawa, Japan — virtual (oral). *Taxonomic Data Objects for Communicating the Meaning of Species Names.*
2024. American Society of Mammalogists 103rd annual meeting, Boulder, CO (oral). *Uniting the mammalverse of genomic and ecological knowledge.*
2024. CAP LTER All Scientists Meeting, Tempe, AZ (poster). *Forested sky islands to urban desert remnants: investigating the island biodiversity of Arizona small mammals and their symbionts.*
2023. 13th International Mammalogical Congress / American Society of Mammalogists, 102nd Annual Meeting; Anchorage, AK (oral). *Environmental suitability in the late Quaternary explains genetic diversity in Tassel-eared Squirrels (*Sciurus aberti*).*
2023. Evolution Meetings; Albuquerque, NM (oral). *Ecological causes of uneven mammal diversity.*
2023. iDigBio Digital Data Conference; Tempe, AZ (oral). *Taxonomic translation of bat-virus interaction data via automated alignment tools.*
2022. American Society of Mammalogists, 101st Annual Meeting; Tucson, AZ (oral). *Mammal Species of the World Next (MSWx): platform for curating taxonomic intelligence to extend biodiversity data*
2021. American Society of Mammalogists, 100th Annual Meeting; Online (oral). *Aligning taxonomies to unlock ecological knowledge: case study in the viruses of North American rodents.*
2019. American Society of Mammalogists, 99th Annual Meeting; Washington, DC (oral). *Evolving the Mammalia tree of life.*
2019. Evolution Meetings; Providence, RI (oral). *Species and speciation in global Mammalia: how do species-level phylogenies compare?*
2018. American Society of Mammalogists, 98th Annual Meeting; Manhattan, KS (oral). *Ecological causes of uneven diversification and richness in the mammal tree of life.*
2018. American Association for the Advancement of Science; Austin, TX (e-poster). *Rates and drivers of recent species diversification in global Mammalia.*
2017. American Society of Mammalogists, 97th Annual Meeting; Moscow, ID (oral). *Repeated radiations in the history of mammals: what drives rate variation across a new global tree?*
2017. Society of Systematic Biologists standalone meeting, Baton Rouge, LA (5-min oral). *Rates and drivers of species-level diversification in global Mammalia.*
2016. American Society of Mammalogists, 96th Annual Meeting; Minneapolis, MN (oral). *All mammals in one tree: species-level phylogeny of Mammalia using a supermatrix of 31 genes.*
2016. Evolution Annual Meetings; Austin, TX (oral). *A complete species-level phylogeny of Mammalia using a supermatrix of 31 genes.*
2016. American Society of Naturalists standalone meeting, Asilomar, CA (20-min oral). *Mammalian phylogeny enters the matrix: A complete species-level analysis of mammals using a supermatrix of 31 genes.*
2015. American Society of Mammalogists, 95th Annual Meeting; Jacksonville, FL (oral). *Endangered Cuban hutias: Population genetics and biogeography in the context of an evolutionary radiation.*
2015. Society of Systematic Biologists standalone meeting, Ann Arbor, MI (5-min oral). *Testing for adaptively radiating clades.*
2014. American Society of Mammalogists, 94th Annual Meeting; Oklahoma City, OK (oral). *Testing for adaptive radiation and ecological constraint in a major lineage of rodents (*Caviomorpha*, *Ctenohystrica*).*
2014. Genomes to Biomes, 1st Joint Conference of the Canadian Societies CSEE, CSZ, and SCL; Montreal, QC (oral). *Testing for adaptive radiation and ecological constraint in a major lineage of rodents (*Caviomorpha*, *Ctenohystrica*).*
2013. Evolution Annual Meetings; Snowbird, UT (oral). *Andes-Amazon diversification in a diverse lineage of tropical rodents: integrating DNA sequences, fossils, and species traits.*
2012. II Congreso Latinoamericano de Mastozoología; Buenos Aires, Argentina (oral). Invited participant in the symposium “Biología de los roedores Caviomorfos: diversidad y evolución” (delivered in English with Spanish slides). *Diversificación molecular y morfológica de un linaje mayor de roedores neotropicales (*Caviomorpha*: *Octodontoidea*).*

2012. Society for Conservation Biology, 1st North America Congress; Oakland, CA (poster). *Biogeography and conservation of Cuba's endemic non-flying mammals*.
2012. American Society of Mammalogists, 92nd Annual Meeting; Reno, NV (oral). Invited participant in the opening plenary session. *Diversification of a major lineage of Neotropical rodents (Caviomorpha, Octodontoidea): insights from DNA sequences and fossil mandibles*.
2011. IV Congreso Latinoamericano Paleontología de Vertebrados, San Juan, Argentina (oral). Invited participant in the symposium “Orígenes y Evolución del Neotrópico Sudamericano.” *Molecular phylogeny, divergence timing, and biogeography of the Neotropical caviomorph lineage Octodontoidea (Rodentia: Hystricognathi)*.
2011. American Society of Mammalogists, 91st Annual Meeting; Portland, OR (poster). *A preliminary analysis of divergence timing and historical biogeography in the Neotropical caviomorph lineage Octodontoidea (Rodentia: Hystricognathi)*.
2010. American Society of Mammalogists, 90th Annual Meeting; Laramie, WY (oral). *Evolution of the New World rodent superfamily Octodontoidea: preliminary patterns using multiple genes and fossils*.
2009. 10th International Mammalogical Congress; Mendoza, Argentina (poster). *Moonlight avoidance by bipedal, but not quadrupedal, rodents in sandy and open habitats of the Great Basin Desert, U.S.*
2007. American Society of Mammalogists, 87th Annual Meeting; Albuquerque, NM (oral). *Rodent activity in response to lunar illumination in sandy habitats of the Great Basin Desert*.
2006. American Society of Mammalogists, 86th Annual Meeting; Amherst, MA (oral). *Phylogeography of the dark kangaroo mouse, *Microdipodops megacephalus**.
2005. American Society of Mammalogists, 85th Annual Meeting; Springfield, MO (oral). *Molecular phylogenetics of the dark kangaroo mouse, *Microdipodops megacephalus**.

PROFESSIONAL SERVICE

Positions

- 2016-present. *Chair*, [Biodiversity Committee](#), [American Society of Mammalogists](#).
- 2023-present. *Chair*, Ad hoc Digital Publications Committee, American Society of Mammalogists.
- 2024-present. *Deputy Chair for Systematics and Taxonomy*, [IUCN SSC Small Mammal Specialist Group](#).
- 2017-2024. *Taxonomy Advisor*, [IUCN SSC Small Mammal Specialist Group](#).
- 2021-present. *Member*, [Global Bat Taxonomy Working Group](#) of the [IUCN SSC Bat Specialist Group](#).
- 2024-present. *Co-Chair*, [Bat Eco-Interactions Working Group](#) (within the [Global Union of Bat Diversity Networks](#))

Symposia and Workshops Organized

2023. Co-organizer and speaker for the workshop “[Mammal Species of the World Next: workshop for extended taxonomic data curation](#)” at the International Mammalogical Congress; Anchorage, Alaska, USA and virtual.
2023. Co-organizer and speaker for the workshop “[Addressing the taxonomic and geographic shortfalls in IUCN Red List Assessments: Guidelines for ASM researchers](#)” at the International Mammalogical Congress; Anchorage, Alaska, USA and virtual.
2022. Co-organizer and speaker for the symposium “[Extended taxonomic curation: moving beyond species lists to linking species data](#)” at the TDWG 2022 Hybrid Conference; Sofia, Bulgaria and virtual.
2022. Co-organizer and speaker for the symposium “[Biodiversity and conservation of Madrean Pine-oak Sky Island mammals in the US and Mexico](#)” at the American Society of Mammalogists, 100th Meeting; Tucson, AZ.
2021. Co-organizer and speaker for the discussion section “[Leveraging AI to extend specimen networks](#),” iDigBio 5th Annual Conference.
2020. Co-organizer and moderator of discussion section “[Avenues into integration: communicating taxonomic intelligence from sender to recipient](#),” TDWG 2020 Virtual Conference.
2020. Co-organizer of discussion section “[Taxonomically intelligent biodiversity data: Taking stock of our progress and next steps to scale up implementation](#),” iDigBio 4th Annual Conference.
2019. Organizer and moderator of the discussion section “Synonyms: can we find durable solutions to name-based biodiversity data?” at the 3rd Annual Digital Data Conference (iDigBio).

2019. Co-organizer of the symposium “[Mammal diversity from GenBank to the RedList](#): Challenges and rewards of integrating museum specimens in global databases of genetics, taxonomy, and spatial biodiversity” at the American Society of Mammalogists, 99th Annual Meeting; Washington, DC.
2019. Co-organizer of the workshop “[Hackathon for the Mammal Diversity Database](#)” at the American Society of Mammalogists, 99th Annual Meeting; Washington, DC.
2015. Co-organizer of the featured symposium “The Last Remaining Caribbean Mammals: Conservation Priorities and the Historical Context of Extinctions in an Island Biodiversity Hotspot” at the American Society of Mammalogists, 95th Annual Meeting; Jacksonville, FL.
- Talks published in a [Special Feature](#) in the *Journal of Mammalogy*.
2009. Organizing committee, *Darwin / Chicago Symposium*, University of Chicago.

Society Memberships and Service

- American Society of Mammalogists, ASM (2005-present)
 - Ad hoc Digital Publications Committee (chair, 2023-present)
 - Board of Directors (elected, 2014-2017)
 - Biodiversity Committee (chair, 2016-present)
 - Conservation Committee (2012-present)
 - Systematic Collections Committee (2011-present)
- American Society of Naturalists (2013-present)
- Society of Systematic Biologists, SSB (2009-2011, 2013, 2017-present)
- American Association for the Advancement of Science, AAAS (2006-2010, 2017-2020, 2024-present)
- Canadian Society for Ecology and Evolution (2014-2015)
- European Society for Evolutionary Biology (2013)
- Sociedad Argentina para el Estudio de los Mamíferos, SAREM (2012-2014)
- Sociedade Brasileira de Mastozoologia, SBMz (2012-2013)
- Society for Conservation Biology, SCB (2012)

University Service

Arizona State University

- SOLS Charter Initiative Taskforce (2024-present)
- SOLS Biodiversity & Systematic Sciences Faculty Innovation Group (FIG; 2025-present): Group leader.
- SOLS Faculty Search Committee (2024-2025)
- SOLS Identity Committee, part of the Reimagining SOLS Initiative (2023-2024)
- STRI-ASU Collaborative Steering Committee (2022-2024)

Refereeing Service ([Publons profile](#))

Since started at ASU — Manuscript referee for *American Naturalist* (2021), *Biodiversity Data Journal* (2024 [x2]), *Biodiversity Informatics* (2026), *Biology Letters* (2021), *BioScience* (2020, 2022, 2023), *Current Biology* (2021 [x2], 2023 [x3], 2024), *Ecology* (2025), *Ecology & Evolution* (2020, 2021), *Ecology Letters* (2023), *Ecosphere* (2024 [x2]), *Evolution* (2020), *Genome Biology & Evolution* (2020), *Heredity* (2020, 2021), *ISME Journal* (2020), *Journal of Mammalogy* (2020 [x2], 2021, 2024), *Molecular Biology & Evolution* (2020), *Nature Communications* (2022, 2025), *PNAS* (2021 [x2]), *Proceedings of the Royal Society B* (2020 [x2]), *Science* (2021 [x2], 2022 [x2], 2023, 2024 [x2]), *Systematic Biology* (2020 [x2], 2021), *Therya* (2025), *Vertebrate Zoology* (2022, 2026).

- Grant referee for Belmont Forum / National Science Foundation (2024), Czech Science Foundation (2021, 2022), Global Biodiversity Information Facility (GBIF) Ebbe Nielsen Competition (2025), Soc. of Systematic Biol (2020), US-Israel Binational Science Foundation (2022), US National Institutes of Health (study sections: Transmission of Vector-borne and Zoonotic diseases [TVZ], 2025)

Pre-2020 — Manuscript referee for *American Midland Naturalist* (2012), *BMC Evolutionary Biology* (2014 [x2]), *CheckList* (2017), *Conservation Biology* (2018), *Ethology*, *Ecology & Evolution* (2014), *Evolution* (2018), *Global Ecology & Biogeography* (2019 [x3]), *Historical Biology* (2017), *Journal of Biogeography* (2014,

2017 [x2]), *Journal of Mammalian Evolution* (2013), *Journal of Mammalogy* (2013, 2014 [x3], 2015, 2018, 2019 [x2]), *Journal of Vertebrate Paleontology* (2016 [x2]), *Journal of Zoology* (2012), *Mammalia* (2017), *Methods in Ecology & Evolution* (2018 [x2]), *Molecular Phylogenetics & Evolution* (2014 [x2]), *Proceedings of the Royal Society B* (2019), *Organismal Diversity & Evolution* (2016), *PLoS One* (2013, 2019), *Zootaxa* (2012, 2015, 2017).

- Grant referee for FONDECYT-Chile (2017)

OTHER PROFESSIONAL SKILLS

- Spanish and Portuguese – proficient in written and spoken language.
- Mammal live-trapping and museum specimen preparation
- Driving manual transmission and four-wheel drive vehicles
- Wilderness First Responder (since 2015, recertification valid until March 2026 from NOLS)
- Martial arts – Aikido (since 2011, current rank of Nidan & Fukushidoin in Birankai North America)

REFERENCE CONTACTS

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