

Natalie M. Hamilton

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Education

2023. **PhD** Wildlife and Fisheries Sciences

Thesis: Ecology and Population Genetics of Townsend's Big-eared Bats

Advisor: Jessica Light and James Cathey

Texas A&M University, College Station, Texas

2019 **M.Sc.** Evolution, Ecology, and Organismal Biology

Thesis: *Peachia chilensis* (Carlgren 1931): Redescription of a species of parasitic, burrowing sea anemone with a revision of Haloclavidae (Verrill 1899)

Advisor: Meg Daly

Ohio State University, Columbus, Ohio

2015 **B.S.** (with distinction) Biology

Thesis: Global phylogeography and species delimitation in the 'sexy shrimp' *Thor amboinensis*

Advisor: Ben Titus

Ohio State University, Columbus, Ohio

Research Experience

2023-Present *Postdoctoral Research Fellow*, University of Alaska Fairbanks *advised by Dr. Link Olson*

- Using multiple lines of molecular evidence to understand the evolution of North American marmot species

2019-2023 *Graduate Research Associate*, Texas A&M University *advised by Dr. Jessica Light*

- Using modern methods with historical museum specimens to elucidate the evolution of a widespread, ecologically important rodent species
- Population Genetics and Ecology in Townsend's big-eared bats (*Corynorhinus townsendii*)

2016-2019 *Graduate Research Associate*, Ohio State University *advised by Dr. Meg Daly*

- Research Experience for Undergraduates (PI: Dr. Bryan Carstens, Dr. Meg Daly)
- Systematics of burrowing sea anemone

2014-2016 *Undergraduate Research Associate*, Ohio State University *advised by Dr. Ben Titus*

- Molecular laboratory technician

Teaching Experience

2019 -2020 *Graduate Teaching Associate*, Texas A&M University

- Natural History of Vertebrates

2016-2019 *Graduate Teaching Associate*, The Ohio State University

- Introductory Biology, Human Physiology, Evolution and Ecology of Mammals, Evolution

2012-2014 *Undergraduate Peer Mentor*, The Ohio State University

- General Chemistry

Publications

* Indicates undergraduate co-author

1. **Hamilton, NM**, K. Sanchez*, ML Moran, RE Sherwin, JE Light, ML Morrison. Genetic variation and population structure among western hibernacula of Townsend's big-eared bats, *Corynorhinus townsendii townsendii*. In review, *Western North American Naturalist*.
2. Capel SLR., **NM. Hamilton**, D. Fraser, M. Escalona, O. Nguyen, S. Sacco, R. Sahasrabudhe, W. Seligmann, JM. Vazquez, PH. Sudmant, ML. Morrison, RK. Wayne, MR. Buchalski. Reference Genome of Townsend's big-eared bat, *Corynorhinus townsendii*. In review *Journal of Heredity*
3. **Hamilton NM**, M. Morrison, L. Harris, J. Szewczak, and S. Osborn. 2022. Predicting habitat suitability for Townsend's big-eared bats across California in relation to climate change. *Ecology and Evolution* 12. <https://doi.org/10.1002/ece3.9641>
4. **Hamilton NM**, Gusmão LC, Izumi T, Rodríguez E, Yap NWL, et al. (2022) Phylogeny and taxonomy of Haloclavidae (Verrill, 1899) with a redescription of the parasitic, burrowing sea anemone, *Peachia chilensis* Carlgren, 1931. *PLOS ONE* 17(9): e0266283. <https://doi.org/10.1371/journal.pone.0266283>
5. Weirunga J.G., Boot M.R., Dantas-Queiroz M.V., Duckett D., Fonseca E.M., Glon H., **Hamilton N.**, Kong S., Lanna F.M., Mattingly K.Z., Parsons D.J., Smith M.L, Stone B.W., Thompson C.T., Zuo L., Bryan C. Carstens. Does habitat suitability structure intraspecific genetic diversity? It's complicated... (2020) *Frontiers of Biogeography*. <https://doi.org/10.21425/F5FBG45377>
6. **Hamilton N.**, Jones T.H., Shik J.Z., Wall B., Schultz T.R., Blair H.A., Adams R.M.M. (2018) *Cyphomyrmex* semiochemicals and their relative abundance. *Chemoecology*. <https://doi.org/10.1007/s00049-018-0265-5>
7. Titus B.M., Daly M., **Hamilton N.**, Beurman M.L., Baeza J.A. (2018) Global species delimitation and phylogeography of the circumtropical 'sexy shrimp' *Thor amboinensis* reveals cryptic species complex and secondary contact in the Indo-West Pacific. *Journal of Biogeography*. <https://doi.org/10.1111/jbi.13231>

Presentations and Posters

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- Hamilton NM**, Jansa SA, and Light JE. Of Mice and Museums: Species Delimitation in the *Peromyscus maniculatus* species group using natural history collections and genomic data. Presented at Texas Society of Mammalogists Meeting 2023 and 13th International Mammal Congress 2023.
- Hamilton NM**, Light JE, and Morrison ML. Evidence of rare pigment loss and inbreeding in Townsend's big-eared bats. Presented at the International Bat Research Conference 2022
- Hamilton NM**, Jansa S, and Light JE Species delimitation in the North American deer mouse using multiple lines of evidence. Poster. Presented at Evolution 2022.
- Hamilton NM** Predictive occurrence models for bat species in Texas. Presented at Texas Society of Mammalogists Meeting 2022, Texas Chapter of the Wildlife Society Meeting 2022, The 2022 Ecological Integration Symposium, Texas A&M University
- Hamilton NM** and Morrison ML. Evidence of rare pigment loss and genetic population differentiation in Townsend's big-eared bats. Presented at Texas Society of Mammalogists Meeting 2021 and Texas Chapter of the Wildlife Society Meeting 2021
- Hamilton NM** and Morrison ML. Predicting range shifts under future climate conditions in threatened species using the Townsend's big-eared bat, *Corynorhinus townsendii townsendii* (Cooper 1837) as an example organism. Presented at Society for Integrative and Comparative Biology Conference 2021.
- Hamilton NM** and Morrison ML. Predicting habitat preference in threatened species using the Townsend's big-eared bat, *Corynorhinus townsendii*. Presented at The XXI Ecological Integration Symposium, Texas A&M Virtual Conference. 2020
- Hamilton N**, Rodriguez E, Izumi T, Yap N, and Daly, M. Phylogenetic relationships among burrowing sea anemones in the family Haloclavidae (Cnidaria: Anthozoa: Actiniaria). Wildlife and Fisheries Departmental Seminar Texas A&M, College Station Texas. 2020

- Hamilton N** and Morrison ML. Predicting habitat preference in threatened species using the Townsend's big-eared bat, *Corynorhinus townsendii townsendii*. Presented at Texas Society of Mammalogists Annual Meeting, Lubbock Texas. 2020
- Hamilton N**, and Morrison ML. Predicting habitat preference in threatened species using the Townsend's big-eared bat, *Corynorhinus townsendii townsendii*. Presented at Texas Chapter of the Wildlife Society Meeting, Corpus Christi Texas. 2020
- Hamilton N**, Rodriguez E, Izumi T, Yap N, and Daly, M. Phylogenetic relationships among burrowing sea anemones in the family Haloclavidae (Cnidaria: Anthozoa: Actiniaria). Poster. Presented at Society for Integrative and Comparative Biology Conference 2020
- Stark T.E and **Hamilton N**. Comparison of genomic approaches (ddRADseq and automated Sanger sequencing) for studying the genetic diversity of the Caribbean blue-legged hermit crab (*Clibanarius tricolor*). Poster. Presented at Society of Systematic Biologists Conference 2018.
- Hamilton, N.**, Titus, B., Daly, M. 2015. Species delimitation and phylogeography in the circumtropical 'sexy shrimp' *Thor amboinensis*. Poster. Presented at the Denman Undergraduate Research Forum, The Ohio State University, OH.

Reviewer

Chemoecology

Grants, Awards, and Fellowships

Southwestern Wildlife Graduate Student Scholarship (SWS of TWS)	(2023)
Tom Slick Graduate Research Fellowship (TAMU) - \$40,000	(2022)
Graduate Student Research and Presentation Travel Award	(2022)
Graduate and Professional Student Government Virtual Conference Award (TAMU)	(2021)
California Conservation Genomics Project - \$63,000	(2020)
1st Place Graduate Student Oral Presentation in General Ecology (TAMU)	(2020)
SSB Graduate Student Research Award - \$2000	(2018)
SSB Mini-ARTS Grant - \$2000	(2018)
Patricia L. Dudley Endowment (UW Friday Harbor Laboratories)	(2018)
The Lerner-Gray Fund for Marine Research (AMNH) - \$2130	(2018)
The Ohio State University Undergraduate Research Award - \$1000	(2014)

Memberships in Professional Societies

Society of Systematic Biologists
 Society for the Study of Evolution
 Society for Integrative and Comparative Biology
 Texas Chapter of the Wildlife Society
 Texas Society of Mammalogists
 American Genetics Association
 Animal Behavior Society
 American Society of Naturalists
 American Society of Mammalogists
 North American Society for Bat Research

Outreach and Training

- Outreach: Bryan Collegiate Highschool Naturalists Club - Bryan, Texas (2019)
 Outreach: Museum of Biological Diversity Open House - Ohio State University (2015-2019)
 Outreach: Graduate Evolution and Ecology Student Organization - GEES (2017-2019)
- Facilitator and fundraising chair

Outreach: Radio Interview with Matt Groff for KCAW Sitka, Alaska. (2018):
<http://www.sitkanature.org/wordpress/2018/08/19/sitka-nature-show-164-natalie-hamilton/>

Outreach: Graduate Peer Mentor - Ohio State University (2018)

Outreach: COSI (Center of Science and Industry Columbus, OH) (2018-2019)

Outreach: STEAM Factory - Columbus, Ohio (2018-2019)

Teaching training: University of Center for the Advancement of Teaching - Inclusive Teaching Series - Ohio State University (2018)

- Teaching Global Writers in US Classrooms
- Teaching Student Veterans
- Supporting International Diversity in the Classroom
- BuckIDream Ally Training

Outreach: Scientific Thinkers - Columbus, Ohio (2017)