AMANDA MURPHY ADAMS

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ORCiD: <u>0000-0002-8365-6456</u> **ResearcherID:** M-2443-2017

EDUCATION

Doctor of Philosophy in Biology

1 Nov. 2013

University of Western Ontario, London, ON (UWO)

Doctoral Dissertation:

• Assessing and analyzing bat activity with acoustic monitoring: challenges and interpretations Environmental and Sustainability Collaborative, Centre for Environment and Sustainability (CES)

Master of Science in Biology

9 Sept. 2006

University of California, San Diego, La Jolla, CA (UCSD)

Master's Thesis:

• The effects of toxins on growth, survivorship, and behavior of pipefish (Syngnathus califoniensis)

Bachelor of Science in Biology

19 Mar. 2005

University of California, San Diego, La Jolla, CA

RESEARCH EXPERIENCE

Sternberg Museum of Natural History Research Associate

Oct. 2018 – June 2019

Post-doctoral Research

1 Aug. 2015 – 1 Aug. 2018

Dr. Michael Smotherman, Department of Biology, Texas A&M University (TAMU), College Station, TX, USA

- Investigating mutual interference of groups of echolocating bats.
- Analyze acoustic data and create 3D flight paths with acoustic and stereo-video recordings
- Coordinate a team of undergraduates for collecting and analyzing data
- Care for captive colony of bats, *Tadarida brasiliensis*
- Mentoring a diverse team of undergraduates

Post-doctoral Research

15 Sept. 2013 – 20 July 2015

Dr. Berry Pinshow, Mitrani Department of Desert Research, Ben-Gurion University of the Negev (BGU), Midreshet Ben-Gurion, Israel

- Researching burrow environments and their inhabitants, specifically scorpion and rodent burrows. Studying burrow structure and how it functions as an extended organ of physiology for the inhabitant.
- Casting burrows with molten aluminum, 3D scanning of casts
- Micrometeorology, soil properties, air flow

Doctoral Research

1 Sept. 2007 – 25 June 2013

Dr. M. Brock Fenton, UWO

- Studied bat activity levels and how they differ with time, space, and sampling method
- Sampled bat communities in different situations and habitats in Belize, California, Costa Rica, Cuba, Jamaica, Ontario, and Saskatchewan through the use of mist nets, harp traps, and acoustical monitoring
- Banded bats in Ontario and Costa Rica
- Managed and analyzed large amounts of bat acoustic data
- Developed automated bat call identification process for Ontario bat species
- Created reference call library for bat species in Costa Rica

Research Assistant June – Aug. 2007

Dr. Kim Williams-Guillén, University of Michigan

- Sampled bat communities in different management systems by mist netting (ground and triple-high nets), harp traps, acoustical monitoring, roost surveys, and insect sampling
- Processed and handled large quantities of bats each night; including aging, reproductive status, and banding

Master's Research June 2004 – June 2006

Dr. Karen Marchetti, UCSD and Chris Stransky, Nautilus Environmental

- Studied the effects of toxins on the growth, survivorship and behavior of pipefish (Syngnathidae)
- Analyzed how populations reflect environmental toxin levels; possible use of *Syngnathus californiensis* and *S. leptorhynchus* as biological indicators

Undergraduate Research

Dr. Federico Chinchilla and Dr. Frank Joyce, University of California Education Abroad Tropical Biology Program

Nov. 2003

• Investigated the effects of global warming on bats in the Monteverde region of Costa Rica, including mist netting and data analysis of past and current distributions of bats

Dr. Jeff Moorehead, UCSD

May 2003

• Studied environmental preferences and location selectivity of California horn snails (*Cerithidea california*)

PUBLICATIONS

- Gearhart, C., **A.M. Adams**, B. Pinshow, C. Korine. 2020. Evaporative water loss in Kuhl's pipistrelles declines along an environmental gradient, from mesic to hyperarid. Comparative Biochemistry and Physiology, Part A, 240(110587). https://doi.org/10.1016/j.cbpa.2019.110587
- **Adams, A.M.**, A. Patricio[†], R. Manohar[†], M. Smotherman. 2019 Influence of signal direction on sonar interference. Animal Behaviour, 155, 249 256. https://doi.org/10.1016/j.anbehav.2019.05.024
- Layng, A.L., **A.M. Adams**, D.E. Goertz, K.W. Morrison, B.A. Pond, R.D. Phoenix. 2019. Bat species distribution and habitat association in northern Ontario, Canada. Journal of Mammalogy, gyz006. https://doi.org/10.1093/jmammal/gyz006

- Clare, E.L., A. Fazekas, N. Ivanova, R.M. Floyd, P.D.N. Herbert, **A.M. Adams**, J. Nagel, R. Girton, S.G. Newmaster, M.B. Fenton. 2018. Approaches to integrating genetic data into ecological networks. Molecular Ecology, 28(2): 503 519. https://doi.org/10.1111/mec.14941.
- **Adams, A.M.** and M.B. Fenton. 2017. Identifying peaks in bat activity: a new application of the spacetime scan statistic. Wildlife Research: WR16194. doi.org/10.1071/WR16194.
- Adams, A.M., K. Davis[†], M. Smotherman. 2017. Suppression of emission rates improves sonar performance by flying bats. Scientific Reports, 7: 41641, doi: 10.1038/srep41641. Adams, A.M, E. Marais, J.S. Turner, L. Prendini, B. Pinshow. 2016. Similar burrow architecture of three arid-zone scorpion species implies similar ecological function. Naturwissenschaften: doi:10.1007/s00114-016-1374-z
- Korine, C., **A.M. Adams**, U. Shamir, A. Gross. 2015. Effect of water quality on species richness and activity of desert-dwelling bats. Mammalian Biology, 80(3): 185-190, doi:10.1016/j.mambio.2015.03.009.
- **Adams, A.M.**, L.P. McGuire, L.A. Hooton, and M.B. Fenton. How high is high? Using percentile thresholds to identify peak bat activity. Canadian Journal of Zoology, 93(4): 307-313, 10.1139/cjz-2014-0230
- Clare, E.L., H.R. Goerlitz, V.A. Drapeau, M.W. Holderied, **A.M. Adams**, J. Nagel, E.R. Dumont, P.D.N. Hebert, M.B. Fenton. 2013. Trophic niche flexibility in *Glossophaga soricina*: how a nectar seeker sneaks an insect snack. Functional Ecology, 28: 632-641.
- Mills, S.C., **A.M. Adams**, R.D. Phoenix. 2013. Bat Species Diversity in the Boreal Forest of Northeastern Ontario, Canada. Northeastern Naturalist, 20(2): 309–324.
- Clare, E.L., **A.M. Adams***, A. Maya-Simoes, J. Eger, P.D.N. Hebert, and M.B. Fenton. 2013. Diversification and reproductive isolation: cryptic species in the only New World high-duty cycle bat, *Pteronotus parnellii*. BMC Evolutionary Biology, 13:26: doi:10.1186/1471-2148-13-26.**
- **Adams, A.M.,** M.K. Jantzen, R.M. Hamilton, and M.B. Fenton. 2012. A comparison of bat detectors: performance with synthetic playback and free-flying bats. Methods in Ecology and Evolution, 3(6): 992–998.
- Clare, E.L., A. Fazekas, N. Ivanova, R.M. Floyd, P.D.N. Herbert, **A.M. Adams**, J. Nagel, S.G. Newmaster, M.B. Fenton. The stabilising effect of weak interactions and flexible functional roles in a multi-level tropical network. Science: in review.
- **Adams, A.M.**, K. Davis, M. Smotherman. Cooperative suppression of pulse emission rates improve sonar performance by flying bats. Proceedings of the Royal Society B: in review.
- **Adams, A.M.** and M.B. Fenton. Identifying peaks in bat activity: a new application of the space-time scan statistic. Ecology and Evolution: in review.

^{*} co-first author

^{**} rated as highly accessed by Bio-Medical-Central

[†] undergraduate researchers

PRESENTATIONS

- **Adams. A.M.** and M. Smotherman. 2019. Influence of signal direction on sonar performance. International Bat Research Conference, Phuket, Thailand.
- Rogness, B., **A.M. Adams**, C. Schmidt, E. Finck. 2019. Spatial and temporal patterns of bats near the Saline River through acoustic techniques. Kansas Natural Resources Conference (KNRC), Manhattan, KS.
- Sargent, C.†, H. Perryman†, M. Groom†, S. Ruelas-Aranda†, N. Allison††, J. Schumacher†, M. Tanis††, C. Schmidt, M. Greer, **A.M. Adams**. 2019. Bat's use of natural areas within an urban landscape. KNRC, Manhattan, KS. (poster)
- Perryman, H.†, Sargent, C.†, N. Allison††, M. Groom†, S. Ruelas-Aranda†, J. Schumacher†, M. Tanis††, M. Noland, C. Schmidt, M. Greer, **A.M. Adams**. 2019. Monitoring the effectiveness of pond restoration efforts through the macroinvertebrate community. KNRC, Manhattan, KS. (poster)
- Skelton, M.C.†, M.A. Noland, C.J. Schmidt, W.J. Stark, **A.M. Adams**, M.J. Greer. 2019. Pre-restoration Assessment of a Waterway within an Urban Green Space at the Sternberg Natural Area, Hays, KS. KNRC, Manhattan, KS. (poster)
- **Adams, A.M.** and M. Smotherman. 2018. Acoustic suppression of pulse emission in a solitary bat species. North American Symposium n Bat Research (NASBR), Puerto Vallarta, Mexico.
- **Adams, A.M.** 2019. Brand You: Personal Branding. Spring Professional Development Day, Fort Hays State University (FHSU), Hays KS.
- **Adams, A.M.** and M. Smotherman. 2018. Influence of signal direction on sonar performance. International Congress of Neuroethology (ICN) Biosonar Satellite Symposium, Brisbane, Australia.
- **Adams, A.M.** and M. Smotherman. 2018. Acoustic suppression of pulse emissions in a solitary bat species. ICN, Brisbane, Australia.
- Patricio, A.[†], K. Miller[†], K. Vu[†], and **A.M. Adams**. 2018. Comparing bats from different ecologies and how they use strobe groups. Houston Regional Ecology & Evolution Student Symposium, Houston, TX. (poster) **awarded second place
- Patricio, A.[†], K. Miller[†], K. Vu[†], and **A.M. Adams**. 2018. Distribution of strobe groups in bat echolocation. Student Research Week. Texas A&M University, College Station, TX. (poster)

- **Adams, A.M.**, K. Davis[†], and M. Smotherman. 2017. Mutual suppression of pulse emission rates improves sonar performance by flying bats. 2nd annual Postdoctoral Research Symposium, Texas A&M University, College Station, TX. (poster)
- Manohar, R.[†], A. Patricio[†], M. Smotherman, and **A.M. Adams**. 2017. Mutual suppression of echolocation in groups of tri-colored bats. Student Research Week. Texas A&M University, College Station, TX. (poster)
- Sigala, E.[†], A. Patricio[†], R. Manohar[†], S. Balaji[†], D. Lira[†], M. Smotherman, and **A.M. Adams**. 2017. Elementary curriculum development for addressing misconceptions of adaptation using bats. Student Research Week. Texas A&M University, College Station, TX. (poster)
- **Adams, A.M.**, J. Pocock[†], and M. Smotherman. 2017. Modelling mutual suppression of sonar in group of bats. Society for Integrative and Comparative Biology (SICB), New Orleans, LA.
- **Adams, A.M.** and B. Pinshow. 2017. Scorpions modify their behavior and burrow structure in response to the physical environment. SICB, New Orleans, LA. (poster)
- **Adams, A.M.** and M. Smotherman. 2016. In your face: influence of signal traction on sonar interference. NASBR, San Antonio, TX.
- **Adams. A.M.**, K. Davis, M. Smotherman. 2016. Mutual suppression of pulse emission rates improves sonar performance by flying bats. Student/Postdoc Research Conference, Texas A&M University, College Station, TX. (Data Blitz talk, poster)
- Pinshow, B., **A.M. Adams**, and J.S. Turner. 2016. Similar burrow architecture in three scorpion species implies similar ecological function. Society of Experimental Biology, Brighton, UK.
- Pinshow, B., **A.M. Adams**, and J.S. Turner. 2016. Scorpion burrow morphology attenuates ventilation by trapping eddies. Society for Integrative and Comparative Biology, Portland, OR.
- **Adams, A.M.**, K. Davis, and M. Smotherman. 2015. Communication networks in groups of echolocation bats. 41st Annual North American Symposium on Bat Research, Monterey, CA.
- **Adams, A.M.**, J.S. Turner, P. Berliner, and B. Pinshow. 2015. Burrows of scorpions from different continents are very similar in architecture. Society for Integrative and Comparative Biology, West Palm Beach, FL. (poster)
- **Adams, A.M.**, J.S. Turner, P. Berliner, and B. Pinshow. 2014. Scorpion burrow structure and ventilation. American Physiological Society Comparative Approaches to Grand Challenges in Physiology, San Diego, CA. (poster)
- **Adams, A.M.**, J.S. Turner, P. Berliner, and B. Pinshow. 2014. Scorpion burrow structure and ventilation. Society of Experimental Biology, Manchester, UK.
- **Adams, A.M.** 2013. Value in Variation? Stationary Acoustic Transects to Account for Spatial Variation in Bat Activity. 16th Annual International Symposium on Bat Research, San Jose, Costa Rica.
- **Adams, A.M** and M.B. Fenton. 2012. Value in variation? Spatio-temporal variation in bat activity. 42nd Annual North American Symposium on Bat Research, San Juan, Puerto Rico.

- **Adams, A.M.** 2012 Value in variation? Spatio-temporal variation in bat activity. Biology Graduate Research Forum, London, Ontario. Student long presentation award honorable mention.
- **Adams, A.M.**, M.K. Jantzen, R.M. Hamilton, and M.B. Fenton. 2012. A comparison of bat detectors: performance with synthetic playback and free-flying bats. Bat Research Meeting Cuba-Canada, Havana, Cuba. (presented in Spanish)
- **Adams, A.M.**, M.K. Jantzen, R.M. Hamilton, and M.B. Fenton. 2011. A comparison of bat detectors: performance with synthetic playback and free-flying bats. 41st Annual North American Symposium on Bat Research, Toronto, Ontario. (poster)
- **Adams, A.M.** 2010. Hide and Seek: 'Special' Site Detectability. 40th Annual North American Symposium on Bat Research, Denver, Colorado.
- Clare, E., B. Barber, B. Sweeney, E. Fraser, **A.M. Adams**, P.D.N. Hebert, and M.B. Fenton. 2010 Molecular dietary analysis of *Myotis lucifugus*, in Southwestern Ontario: spatial and temporal heterogeneity in dietary preferences indicate habitat type and quality. 40th Annual North American Symposium on Bat Research, Denver, Colorado.
- Clare, E.L., B. Barber, E. Fraser, **A.M. Adams**, M.B. Fenton, P.D.N. Hebert. 2009. Unraveling the food web of an insectivores bat community. 39th Annual North American Symposium on Bat Research, Portland, Oregon.
- **Adams, A.M.** and L.P. McGuire. 2008. What is a busy night? 38th Annual North American Symposium on Bat Research, Scranton, Pennsylvania.
- **Adams, A.M.** 2008. Bat Activity Levels: How they differ in time, space, and sampling. Ontario Ecology and Ethology Conference, Guelph, Ontario. (poster)
- **Adams, A.M.** 2008. Bat Activity Levels: How they differ in time, space, and sampling. Earth Day Colloquium, London, Ontario.

INVITED TALKS

- **Adams, A.M.** 2020. Jamming avoidance and mitigation of acoustic interference in groups of echolocating bats. Texas Tech University. Departmental seminar. Lubbock, TX.
- **Adams, A.M.** 2019. Brand You: Personal Branding. Digital Informal Scientific Communication (BIOL 855), FHSU, Hays KS.
- **Adams, A.M.** 2018. Bat Ecology, Problems in Geosciences: Earth and Space Science Research & Writing (GSCI 673), Fort Hays State University, Hays, KS.
- **Adams, A.M.** 2018. How to give a great poster presentation, Professional Scientific Communication (BIOL 807), Fort Hays State University, Hays, KS.

[†] undergraduate researcher

^{††} Kansas Academy of Mathematics and Science (KAMS) student

- **Adams, A.M.** 2018. Sensory ecology of bats. Comparative Animal Physiology (MARB 420), Texas A&M University, College Station, TX.
- **Adams, A.M.** 2014. Assessing and analyzing bat activity with acoustic monitoring: challenges and interpretations. Department of Zoology Seminar, Tel Aviv University, Israel.
- **Adams, A.M.** 2014. Assessing and analyzing bat activity with acoustic monitoring: challenges and interpretations. Mitrani Department of Desert Ecology Seminar. BGU, Israel.
- **Adams, A.M.** 2014. Assessing and analyzing bat activity with acoustic monitoring: challenges and interpretations. Biology of Desert Dwelling Bats International Workshop. BGU, Israel.

Adams. A.M. 2012. Studying Bats. Bats and Abandoned Mines Workshop. Sudbury, Ontario.

Panel Presentations

Mentoring Undergraduate Researchers Workshop. Texas A&M University. 2017 – 2018 Successful Integration of Undergrads Panel. Undergraduate Research Expo. Texas A&M University. Oct. 2017

POPULAR MEDIA

TV segments: Discovery Channel (Daily Planet, Canada, 2015)

Research featured in Discover Magazine (2015)

WORK EXPERIENCE

Bat Conservation International

2019 – present

Conservation Research Program Manager

Independent Bat Acoustics Consultant

2011 - 2018

- Analyzed bat acoustic data for the Ontario Ministry of Resources (OMNR), Parks Canada, Normandeau Associates, Inc., and Credit Valley Conservation Authority (CVCA)
- Prepared quotes and invoices
- Communicated results and findings in final reports

Bat Acoustic Techniques Workshop

June 2012

Developed for the CVCA

- Developed and taught a workshop with one other graduate student on acoustic techniques
- Tailored curriculum to the organization's specific needs
- Liaised with organization managers

Bat Acoustic Techniques Course

May 2012

Department of Continuing Studies, UWO

• Taught advanced acoustics analysis techniques to OMNR staff

- Developed advanced and beginner curriculum and presentations including material on acoustic survey design, North American bat ecology, and species-specific call identification
- Developing and managing a budget, liaising with OMNR managers, and project management

Management Operations and Marketing Exam Marker

2010 - 2013

Department of Management and Organizational Studies, UWO

• Marked and provided feedback on exams

Bat Biology Course Development

2010

Department of Biology, UWO

- Developed course material for a university-level online course through distance studies at UWO instructed by Dr. M. Brock Fenton
- Outlined lecture curriculum
- Developed all lab section curriculum, including practica presentations, assignments and case studies
- Established teaching assistant resources

Bat Monitoring Techniques Course

2008 - 2009

Department of Continuing Studies, UWO, in collaboration with the OMNR

• Trained OMNR staff and environmental consultants on bat capture, identification, handling, and echolocation call analysis

Nautilus Environmental, LLC

2004 - 2006

- Contributed to research at a private environmental toxicology company as an intern/laboratory technician
- Analyzed water and sediment quality through bioassays
- Assisted with experimental set up, animal care, and collecting data

PROFESSIONAL SERVICE

Peer Review

Methods in Ecology and Evolution

Journal of Ethology

PLoS One

Mammal Research (formally Acta

Theriologica)

Journal of Applied Ecology

Journal of Arachnology

Journal of Wildlife Management

Northeastern Naturalist

Acta Chiropterologica

JSM Environmental Science & Ecology

Remote Sensing in Ecology and Conservation

Zoology

Behavioral Neuroscience

Journal of Mammalogy

Journal of Experimental Biology

European Journal of Wildlife Research

Scientific Reports

Also see **Publons** profile

University Service

- TAMU Aggie Speleological Society Faculty Advisor (2020 present)
- FHSU Experiential Learning Task Force (2019)
- FHSU Undergraduate Research Experience Committee, FHSU (2018 2019)
- TAMU Center for Teaching Excellence Faculty and Student Advisory Board (2017 2018)
- TAMU Council for Principle Investigators postdoctoral representative (2016 2018)
- TAMU Postdoctoral Association (2016 2018)
 - o President and founding member
 - o Created bylaws and coordinated formation of the association
 - o Council of Principal Investigators postdoctoral representative
 - o Center for Teaching Excellence Faculty and Student Advisory Board postdoctoral representative
- UWO Society of Graduate Students (SOGS) Sustainability Committee (2010 2012)
 - o Founding member and former chair for the graduate committee at UWO
 - Spearheaded initiatives including composting in the Grad Club and graduate student areas, a sustainability assessment, waste education activities, and sustainability training development
 - o Communicated extensively with Facilities Management and other groups to coordinate activities
- UWO Student Sustainability Collaborative (2011 2012)
 - o Founding member of the collaborative group intended to bring together all of the student groups working on sustainability initiatives at UWO
 - Scheduled and chaired meetings

Departmental Service

- TAMU Ecology, Evolution, Behavior (EEB) Interdisciplinary Program Seminar Committee (2019 present)
- FHSU Department of Biological Sciences Microscope Committee (2018 2019)
- FHSU Biology Club Co-advisor (2018 2019)
- FHSU Recruiting: Graduate and Majors Programs Fair (2018), Student Recognition Program (2019)
- UWO Earth Day Colloquium Planning Committee (2009 2012)
 - Chair of the committee for two years coordinating this annual interdisciplinary conference for the Centre for Environment and Sustainability
 - o Coordinated all aspects of the event, including people and all tasks
 - Obtained funding for the event and developed budgets
 - O Scheduled presentations and communicated with invited speakers

State and National Service

- Student presentation awards judge
 - o North American Symposium for Bat Research (2016 present)
 - o Kansas Natural Resource Conference (2019)
- Conference Session Chair
 - North American Symposium for Bat Research (2016 present)
 - o Society of Comparative and Integrative Biology (SICB) (2017)

Funding/Scholarship Review

- Science Ambassador Scholarship (2016 present)
- FHSU Outstanding Undergraduate Scholars Award (2019)
- Texas Junior Academy of Science (2016)
- Bat Conservation International Small Grants for Global Bat Conservation Priorities (2016)

Training and Workshops

- Bats and Abandoned Mines Workshop (Aug. 2012)
 - Presented to mining industry, environmental consultants, and government officials on capture and acoustic techniques for studying bats in Sudbury, ON at Science North
- Windsor Cave Bat Workshop (July 2010)
 - Instructed professionals and government officials in Jamaica on bat capture, handling, and acoustic monitoring techniques

MEMBERSHIPS

North American Society for Bat Research (2008 – present)

Kansas Academy of Science (2019 – 2020)

Society of Experimental Biology (2014 – 2017)

Society for Comparative and Integrative Biology (2014 – 2017)

CERTIFICATES

Center for Integration of Research, Teaching, and Learning (CIRTL) Associate

Evidence-Based Undergraduate STEM Teaching

Postdoctoral Workshop Series

Advanced Learning Through Evidence-based STEM Teaching

Coursera: An Introduction to Evidence-Based Undergraduate STEM Teaching

Oct. – Dec. 2015

TEACHING EXPERIENCE

Lecturer Aug. 2019 - present

Department of Biology, Texas A&M University, College Station, Texas

• BIOL 112: Introductory Biology II

Instructor

Fort Hays State University, Hays, KS

Aug. 2018 – June 2019

- BIOL 260: Zoology
- BIOL 260L: Zoology Lab
- BIOL 100: Human Biology

Assistant Professor Aug. – Sept. 2013

University of Western Ontario, London, ON, Canada

- Ontario Universities' Program in Field Biology Experimental Studies in Marine Biology
- Field course at Huntsman Marine Sciences Centre in St. Andrews, New Brunswick

Teaching Assistantships

University of Western Ontario:

- MOS 1021: Introduction to Management and Organizational Studies (Consumer Behavior and Human Resources), Prof. Kevin Thompson Sept. 2012 – Apr. 2013
- 2007 2011• Biology 2290: Biological Methods Laboratory, Prof. Irene Krajnyk Biology 3224: Bat Biology, Distance Studies (online), Dr. Brock Fenton 2010, 2011

University of California, San Diego:

BIEB 164: Behavioral Ecology, Dr. Karen Marchetti Jan. - Mar. 2006 BIEB 128: *Insect Ecology*, Dr. David Holway Mar. - June 2005

June 2005 Co-Instructor

UCSD Extension, La Jolla, CA

- Taught Extreme Ichthyology to high school students with one other instructor
- Developed course curriculum, including exams, hands-on activities, and field trips

SCHOLARSHIPS AND ACADEMIC HONORS

FHSU Undergraduate Research Experience Grant	2018
FHSU Professional Development Funding	2018
TAMU Postdoctoral Scholar Travel Award	May 2018
TAMU Distinguished Postdoctoral Poster Presentation, People's Choice Award	Sept. 2017
TAMU Distinguished Postdoctoral Poster Presentation, 2nd place	Sept. 2017
Kreitman Foundation Post-doctoral Fellowship	Mar. 2014 – Feb. 2015
Blaustein Center for Scientific Cooperation (BCSC) Post-doctoral Fellowship	Sept. 2013 – Sept. 2015
American Physiological Society Travel Award	Sept. 2014
Society of Experimental Biology Travel Grant	July 2014
BCSC Post-doctoral Travel Grant	July 2014
SOGS Travel Award	Jan. 2013
Centre for Environment and Sustainability (CES) Travel Award	2009, 2012
Bat Conservation International Student Scholarship	Mar. 2010
Western Graduate Research Scholarship	2007 - 2011
Biology Department Travel Award	Apr. 2010
Graduate Teaching Associate Michelle Sweeney Scholarship	Mar. 2008
Masonic Foundation Educational Scholarship	2001 - 2005
Awards	

Undergraduate Research Experience Award (FHSU)	Oct. 2018
Distinguished Postdoctoral Poster Presentation, People's Choice Award	Sept 20, 2017
Distinguished Postdoctoral Poster Presentation, 2 nd place	Sept 20, 2017
CES Excellence Award	2011, 2012
SOGS Sustainability Committee Honorarium	Apr. 2012
CES Best Presentation Award	Apr. 2011
Provost's Honors	2002 - 2004

TECHNICAL SKILLS

- Capture, handling, and processing of bats in the field with ground level and triple-high mist nets and harp traps. Experience in both temperate and tropical regions.
- Acoustic monitoring, echolocation species identification
- Statistical analysis and data management with R, SPSS, JMP, SigmaPlot
- Graphic design with Adobe Photoshop and Illustrator, Inkscape
- MATLAB, LabVIEW
- Conversational Spanish