

Aaron D. Smith

Curriculum Vitae

Northern Arizona University, Department of Biological Sciences, 617 S. Beaver St., PO Box 5640, Flagstaff, Arizona 86011-5640, **Phone:** (517) 974-5773, **Email:** aaron.smith@nau.edu,

Web: tenebrionidbase.org, insectbiodiversitylab.org

EDUCATION

Michigan State University, 2006 – 2010

Ph.D., August 2010

Dual degree in Entomology and Ecology, Evolutionary Biology, & Behavior

University of Texas at Austin, 2001 – 2003

Bachelors of Science in Biology, May 2003

Concentration in Evolutionary Biology

PROFESSIONAL APPOINTMENTS

Assistant Professor, Department of Biological Sciences, Northern Arizona University, August 2014–present

Curator, Colorado Plateau Museum of Arthropod Biodiversity, Northern Arizona University, August 2014–present

Research Associate, American Museum of Natural History, New York, New York, 2013–present

RESEARCH INTERESTS

Speciation and patterns of biodiversity based on molecular (transcriptomics, targeted enrichment, and traditional sequencing) and morphological (adult and larval) data ; Coleopteran systematics, especially within Tenebrionidae (darkling beetles); recovery and analysis of ancient beetle DNA from *Neotoma* middens; ecology and phylogeography of flightless insects; the evolution of defensive mechanisms, particularly defensive chemistry and mimicry complexes; and the development of biological databases, phenotypic ontologies, and matrix-based tools to increase taxonomic output and impact.

RESEARCH EXPERIENCE

Northern Arizona University

Assistant Professor, Smith Insect Biodiversity Laboratory, August 2014–present

Curator, Colorado Plateau Museum of Arthropod Biodiversity, August 2014–present

Arizona State University and American Museum of Natural History

Postdoctoral Research Scholar, International Institute for Species Exploration (IISE) and Division of Invertebrate Zoology, June 2010 – August 2014

Coleopteran taxonomy, curation, phylogenetics, and use in outreach programs.

Michigan State University

Research Assistant, A.J. Cook Arthropod Research Collection, 2006 – 2010

Database management and curation of Coleoptera.

Research Assistant, Early Detection Rapid Response Project, 2007 – 2009

Invasive Scolytine and Siricidae detection in Michigan and Ohio.

University of Nebraska at Lincoln

Research Assistant, UNSM – Division of Entomology, August 2004 – May 2005

Data management and curation of Sericini.

University of Texas at Austin

Research Assistant, Geodatabasing Texas Air National Guard facilities, June 2003-August 2004

TEACHING INTERESTS

Insect Biodiversity, Immature Insects, Field Entomology, Phylogenetic Inference and Methodologies, Evolution, Biogeography, Curation in Natural History Collections, Biodiversity: Patterns and Analysis

TEACHING EXPERIENCE

Northern Arizona University

Professor, BIO4599 – Phylogenetics, Spring 2016, Spring 2017

Professor, BIO322 – General Entomology, Fall 2014, Fall 2015, Fall 2016, Fall 2017

Professor, BIO663 – Biogeography, Spring 2015, Spring 2017

Professor, BIO698/498 – Phylogenetics: Methods & Readings, Spring 2015

Professor, BIO485 – Undergraduate Research, Spring 2015 – present

Michigan State University

Guest Lecturer, LB490B (The Darwinian Revolution), Summer 2009

Guest Lecturer, Bug Camp (Systematics and Taxonomy), Summer 2009

Teaching Assistant, ISB 208L (Applications of Bio. Sci. Lab), Spring 2007

Texas A&M University

Teaching Assistant, Medical and Veterinary Entomology, Fall 2005 – Spring 2006

University of Texas at Austin

Specialist (Teaching Assistant), General Entomology, Spring 2004

Specialist (Teaching Assistant), Aquatic Entomology, Fall 2003

PUBLICATIONS (* indicates student author)

27. Aalbu, R.L., **A.D. Smith**, K. Kanda, and P. Bouchard. In press. *Renefouqueosis peruviansis*, a new genus and species of Stenosini (Coleoptera: Tenebrionidae) from Peru with a key to the Stenosini of the World and notes on the genera *Anchomma* and *Fitzsimonsium*. Acta Entomologica Musei Nationalis Pragae, 16pp

26. Aalbu, R.L., M. S. Caterino, and **A.D. Smith**. In Review. Studies in the Cnemeplatiini I: A New Subtribe and Revision of the Genus *Alaudes* Horn with Descriptions of New Species from the Southwestern U.S. And Mexico Including Notes on Distribution and Biology (Coleoptera: Tenebrionidae: Pimeliinae: Cnemeplatiini). Coleopterists Bulletin, 25pp

25. Wirth, C.*, and **A.D. Smith**. 2017. Review of the genus *Trichiotes* Casey (Coleoptera: Tenebrionidae: Pimeliinae: Edrotini), with the description of a new species and checklist of Tenebrionidae from Cuatrociénegas, Mexico. Zootaxa, 3447: 533–542. doi: <http://dx.doi.org/10.11646/zootaxa.3835.4.9>

24. Bousquet, Y., D.B. Thomas, P. Bouchard, **A.D. Smith**, R.L. Aalbu, M.A. Johnston*, and W.E. Steiner. Accepted. Catalogue of Tenebrionidae (Coleoptera) of North America. ZooKeys, 418pp

23. Aalbu, R.L., K. Kanda, and **A.D. Smith**. 2017. Reinstatement of Eschatoporiini Blaisdell, 1906, a unique Tribe of Blind Cavernicolous Tenebrionidae from California, with a New Species from Napa County (Coleoptera: Tenebrionidae: Lagriinae). *ZooKeys*, 688: 135-149. DOI: 10.3897/zookeys.688.13575
22. Kamiński, M.J., K. Kanda, M. Raś*, and **A.D. Smith**. 2017. Pythiopina, an enigmatic subtribe of darkling beetles (Pedinini): taxonomic revision, microtomography, ecological niche models and phylogenetic position. *Systematic Entomology*. DOI:10.1111/syen.12255.
21. **Smith, A.D.**, and C. Wirth*. 2016. A new genus and species of stridulating Edrotini (Coleoptera: Tenebrionidae: Pimeliinae) from West Texas, with notes on stridulation within the tribe. *Annales Zoologici*, 66: 577-587.
20. Nabozhenko, M., A. Kirejtshuk, O. Merkl, C. Varela, R.L. Aalbu, and **A.D. Smith**. 2016. *Caribanosis* Gen. Nov. from Hispaniola (Pimeliinae: Stenosiini) with Taxonomic Notes on the Tribes Belopini and Stenosini (Coleoptera: Tenebrionidae). *Annales Zoologici* 66, 567-570.
19. Thiemer, T.C., **A.D. Smith**, S.M. Mahoney*, and K.E. Ironside. 2016. Available data support protection of the Southwestern Willow Flycatcher under the Endangered Species Act. *The Condor*, 118: 289–299.
18. **Smith, A.D.**, J.S. Wilson, and A.I. Cognato. 2015. The evolution of Batesian mimicry within the North American Asidini (Coleoptera: Tenebrionidae). *Cladistics*, 31: 441–454. DOI: doi: 10.1111/cla.12101
17. **Smith, A.D.**, and L.A. Sanchez*. 2015. Revision of the Caribbean *Wattius* Kaszab (Tenebrionidae: Toxicini: Eudysantina) with type designations for Pascoe's South American species. *ZooKeys*, 537: 111–130. doi: <http://dx.doi.org/10.3897/zookeys.537.6115>
16. **Smith, A.D.**, and P. Cifuentes Ruiz*. 2015. Revision of *Diceroderes* Solier (Tenebrionidae: Toxicini: Eudysantina) with descriptions of three new species. *The Coleopterists Bulletin*, 69 (mo4): 55–72. doi: <http://dx.doi.org/10.1649/0010-065X-69.mo4.55>
15. Thomas, D.B., **A.D. Smith**, and R.L. Aalbu. 2015. Charles A. Triplehorn: An Inordinate Fondness for Darkling Beetles. *The Coleopterists Bulletin*, 69 (mo4): 1–10. doi: <http://dx.doi.org/10.1649/0010-065X-69.mo4.1>
14. Johnston*, M.A., D. Fleming, N.M. Franz, and **A.D. Smith**. 2015. Amphidorini LeConte of Arizona (Coleoptera: Tenebrionidae): Keys and Species Accounts. *The Coleopterists Bulletin*, 69 (mo4): 27–54. doi: <http://dx.doi.org/10.1649/0010-065X-69.mo4.27>
13. Aalbu, R.L., **A.D. Smith**, and F. Sanchez Piñero. 2015. A Revision of *Craniotus* Leconte with descriptions of new insular species from Mexico and notes on distribution and biology (Coleoptera: Tenebrionidae: Pimeliinae: Asidini). *The Coleopterists Bulletin*, 69 (mo4): 93–100. doi: <http://dx.doi.org/10.1649/0010-065X-69.mo4.93>
12. Triplehorn C.A., D.B. Thomas, and **A.D. Smith**. 2015. A Revision of *Eleodes* subgenus *Eleodes* Eschscholtz (Coleoptera: Tenebrionidae). *Transactions of the American Entomological Society*, 141:156–196. doi: <http://dx.doi.org/10.3157/061.141.0111>
11. Deans A.R., S.E. Lewis, E. Huala, S.S. Anzaldo...**A.D. Smith**...and P.M. Mabee [56th of 74 authors]. 2015. Finding Our Way through Phenotypes. *PLoS Biology*, 13(1): e1002033. doi: 10.1371/journal.pbio.1002033

10. **Smith, A.D.**, A.E. Giraldo-Mendoza, G.E. Flores, R.L. Aalbu. 2015. Tenebrionidae Latreille, 1802. In: Beetles (Coleoptera) of Peru: a survey of the families. Journal of the Kansas Entomological Society, 88: 221–228. doi: <http://dx.doi.org/10.2317/kent-88-02-221-228.1>
9. **Smith, A.D.**, R. Dornburg*, and Q.D Wheeler. 2014. Larvae of the Genus *Eleodes* (Coleoptera, Tenebrionidae): Matrix-Based Descriptions, Cladistic Analysis, and Key to Late Instars. ZooKeys, 415: 217–268. doi: 10.3897/zookeys.415.5887
8. **Smith, A.D.**, R. L. Aalbu, and P. Bouchard. 2014. Editorial: Third International Tenebrionoidea Symposium. ZooKeys, 415: 1–8. doi: 10.3897/zookeys.415.7113
7. Aalbu, R.L., and **A.D. Smith**. 2014. The Tenebrionidae of California: A Time Sensitive Snapshot Assessment. ZooKeys, 415: 9–22. doi: 10.3897/zookeys.415.6523
6. Thomas, D.B., **A.D. Smith**, C.A. Triplehorn, and R.A. Aalbu. 2014. Walker’s *Eleodes* (Coleoptera: Tenebrionidae). Zootaxa, 3835: 583–592. doi: <http://dx.doi.org/10.11646/zootaxa.3835.4.9>
5. **Smith, A.D.** 2013. Phylogenetic revision of the North American Asidini (Coleoptera: Tenebrionidae). Systematic Entomology, 38: 585–614.
4. Aalbu, R.A, **A. D. Smith**, C. A. Triplehorn. 2012. A revision of the *Eleodes* subgenus *Caverneleodes* with new species and notes on cave breeding *Eleodes* (Tenebrionidae: Amphidorini). Annales Zoologici, 62: 199-216.
3. **Smith, A.D.**, K.B. Miller, Q.D. Wheeler. 2011. A new species of *Stenomorpha* Solier (Coleoptera: Tenebrionidae: Pimeliinae: Asidini) from Cuatrociénegas with a key to the *furcata* species group. Zootaxa, 2909: 27-37.
2. Cognato, A. I., N. Barc, M. Philip, R. Mech, **A. D. Smith**, E. Galbraith, A. J. Storer, L. R. Kirkendall. 2010. The Native and Introduced Bark and Ambrosia Beetles of Michigan (Coleoptera: Curculionidae, Scolytinae). Great Lakes Entomologist, 42: 101-120.
1. Paulsen, M.J., and **A.D. Smith**. 2005. A new species of stag beetle from sand dunes in west Texas, and a synopsis of the genus *Nicagus* (Coleoptera: Lucanidae: Aesalinae: Nicagini). Zootaxa, 1050: 45-60.

MANUSCRIPTS IN PREP (first author only, to be submitted by December 31, 2017)

- Smith, A.D.**, M.J. Kaminski, K. Kanda, E. Hempel, F. Alberti, C.A. Holmgren, J.L. Betancourt, and M. Hofreiter. Recovery and analysis of ancient beetle DNA from subfossil *Neotoma* middens using high-throughput sequencing. Target journal: Proceedings of the National Academy of Sciences.
- Smith, A.D.**, M.A. Johnston, K. Kanda, P. Navarrete*, L.A. Sanchez*, R.A. Aalbu, Q.D. Wheeler, K.B. Miller, and N.M. Franz. Large-scale molecular phylogeny of the tribe Amphidorini (Coleoptera: Tenebrionidae) shows profound incongruence with current classification. Target journal: Molecular Phylogenetics and Evolution.
- Smith, A.D.**, K. Kanda, M.A. Johnston. Museomics resolves placement of rare enigmatic taxa within the Amphidorini (Coleoptera: Tenebrionidae) phylogeny. Target journal: PLoS One.
- Smith, A.D.**, and K. Kanda. Revision of the southern African genus *Machla* Herbst (Coleoptera: Tenebrionidae), with the description of 34 new species . Target journal: ZooKeys.

PRESENTATIONS (* indicates student author)

- Smith, A.D.**, K. Kanda, and B. Thomas*. 2017. Living on the edge: Shelf fungus habitation within Tenebrionidae. Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Kanda, K., and **Smith, A.D.** 2017. Towards a phylogenomic analysis of Pimeliinae (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Wirth, C* and **Smith, A.D.**, K. Kanda, and B. Thomas*. 2017. A preliminary phylogeny of the Edroitiini (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Thomas, B.* and **Smith, A.D.** 2017. Towards a taxonomic revision of *Hypogena* (Tenebrionidae: Coleoptera). Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Lumen, R.*, M.J. Kaminski, K. Kanda, and **A.D. Smith**. 2017. Revision of the genus *Ulus* Horn (Tenebrionidae: Coleoptera), with a preliminary phylogeny of the Blapstinina. Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Aalbu, R., M. Caterina, K. Kanda, and **A.D. Smith**. 2017. The root (?) of the Tenebrionidae: Cnemeplatiini, higher classification changes, revisions, new species and biology. Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Kaminski, M., K. Kanda, D. Iwan, **A.D. Smith**, and R. Lumen. 2017. Phylogeny of the tribe Pedinini (Coleoptera: Tenebrionidae) and its implications for higher-level classification. Annual Meeting, Entomological Society of America. Denver, CO. (Invited talk)
- Smith, A.D.**, K. Kanda, and M.A. Johnston*. 2016. A revised Amphidorini (Coleoptera: Tenebrionidae) classification based on morphological and molecular data. International Congress of Entomology meeting. Orlando, Florida, USA. (Talk)
- Kanda, K., **A.D. Smith**, and D. Maddison. 2016. A phylogenomic study of Tenebrionidae. International Congress of Entomology meeting. Orlando, Florida, USA. (Talk)
- Wirth*, C. and **A.D. Smith**. 2016. A preliminary phylogeny of Edrotes LeConte (Coleoptera: Tenebrionidae). International Congress of Entomology meeting. Orlando, Florida, USA. (Poster)
- Smith, A.D.** 2016. Darkling Beetle Biodiversity: from systematics to evolutionary ecology. Pennsylvania State University, Department of Entomology. (Invited seminar)
- Navarrete, P.*, K. Kanda, L. Sanchez*, and **A.D. Smith**. 2016. A preliminary molecular phylogeny of the genus *Stenomorpha* (Coleoptera: Tenebrionidae) shows lack of monophyletic subgenera in the current classification. UGRADS Research Symposium, NAU. (Poster)
- Sanchez*, L.A., K. Kanda, P. Navarrete*, and **A.D. Smith**. 2016. A preliminary phylogeny for the pimeliine Darkling Beetles: A mega-diverse desert radiation. UGRADS Research Symposium, NAU. (Poster)
- Holditch*, Z. and **A.D. Smith**. 2016. Priority determines competitive outcome in *Tribolium* grain beetles. UGRADS Research Symposium, NAU. (Poster)
- Smith, A.D.** 2015. Darkling Beetle Biodiversity: An Evolutionary Journey through Time and Morphospace. Annual Meeting, Coleopterists Society. Minneapolis, MN. (Invited keynote talk)
- Kanda, K., **A.D. Smith**, and M.A. Johnston*. 2015. The role of high-throughput sequencing in the study of tenebrionid taxonomy and phylogeny. Fourth International Tenebrionioidea Symposium. Mendoza, Argentina. (Talk)
- Smith, A.D.**, K. Kanda, and M.A. Johnston*. 2015. A generic review of Amphidorini (Coleoptera: Tenebrionidae): Where does *Nycterinus* belong? Fourth International Tenebrionioidea Symposium. Mendoza, Argentina. (Talk)
- Johnston*, M.A., K. Kanda, and **A.D. Smith**. 2015. Phylogenetic Analysis of Amphidorini LeConte: Understanding the evolution of the desert stink beetles (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Minneapolis, MN. (Talk)
- Ares*, M.A., N. Meneses, **A.D. Smith**, A. Moore, and R. Benford. 2015. Molecular Identification of a Lepidopteran Herbivore on a Critically Endangered Tree. UGRADS Research Symposium, NAU. (Poster)

- Smith, A.D.** 2014. Amphidorini morphology (Coleoptera: Tenebrionidae): Where systematics, evolutionary ecology, and biogeography meet. Annual Meeting, Entomological Society of America. Portland, OR. (Talk)
- Johnston*, M.A, N.M. Franz & **A.D. Smith.** 2014. *Eleodes* and allies: phylogenetic assessment of Amphidorini LeConte (Coleoptera:Tenebrionidae). Annual Meeting, Entomological Society of America. Portland, OR. (Talk)
- Smith, A.D.** 2013. No stone unturned: Elucidating darkling beetle (Coleoptera: Tenebrionidae) systematics and the evolution of mimicry. American Museum of Natural History, Comparative Biology Seminar Series. New York, NY. (Invited talk)
- Smith, A.D.** and M.A. Johnston*. 2013. Towards a comprehensive phylogenetic revision of the genus *Eleodes* (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Austin, TX. (Invited talk)
- Smith, A.D.** 2013. Larvae of the Genus *Eleodes* Eschscholtz (Coleoptera, Tenebrionidae). Third International Tenebrionioidea Symposium. Tempe, AZ. (Talk)
- Brown, K.W. and **A.D. Smith, A.D.** 2013. Prospectus for a Revision of the Genus *Philolithus* Lacordaire (Coleoptera: Tenebrionidae:Asidini). Third International Tenebrionioidea Symposium. Tempe, AZ. (Talk)
- Smith, A.D.** 2012. The asidine genera (Coleoptera: Tenebrionidae: Asidini) of North America. New York Entomological Society. New York, NY. (Invited talk)
- Aalbu, R.L., C.A. Triplehorn, and **A.D. Smith.** 2011. Patterns in *Eleodes*. Annual Meeting, Entomological Society of America. Reno, NV. (Invited talk)
- Franz, N.M., **A.D. Smith,** and J. Hulcr. 2011. Developing a beetle anatomy ontology based on the HAO model - lessons for inter-ordinal ontology integration. Annual Meeting, Entomological Society of America. Reno, NV. (Invited talk)
- Smith, A.D.** 2011. The asidine genera (Coleoptera: Tenebrionidae: Asidini) of North America. Annual Meeting, Entomological Society of America. Reno, NV. (Invited talk)
- Smith, A.D.** & A.I. Cognato. 2009. Implementation of Specify for databasing the A.J. Cook Arthropod Research Collection. Annual Meeting, Entomological Collections Network. Indianapolis, IN. (Talk)
- Smith, A.D.** & A.I. Cognato. 2009. Evolution of Contrasting Defensive Strategies within the North American Asidini (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Indianapolis, IN. (Talk)
- Smith, A.D.** 2008. Revision of the North American Asidini (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Reno, NV. (Talk)
- Smith, A.D.** 2007. Phylogeny of the North American Asidini (Coleoptera: Tenebrionidae) based on morphology. Annual Meeting, Entomological Society of America. San Diego, CA. (Poster)
- Smith, A.D.** & A.I. Cognato. 2006. Towards a phylogenetic revision of the North American Asidini (Coleoptera: Tenebrionidae). Annual Meeting, Entomological Society of America. Indianapolis, IN. (Invited talk)

PROFESSIONAL AFFILIATIONS

Coleopterists Society (2002 – present)

Entomological Collections Network (2005 – present)

Entomological Society of America (2005 – present)

New York Entomological Society (2011 – present)

Society for Systematic Biologists (2008 – present)

Willi Hennig Society (2008 – present)

PROFESSIONAL ACTIVITIES

Entomological Society of America – SysEB section: Treasurer 2018-2020 (three year term)

Subject Editor (2015 – present): ZooKeys, Tenebrionioidea

Associate Editor (2011 – 2017): Zootaxa, Tenebrionioidea

Editor: Kaminski, M., P. Bouchard, and A.D. Smith (Eds) Proceedings of the Fourth International Tenebrionioidea Symposium, Mendoza, Argentina, 2015. Annales Zoologici 2016.

Editor: Thomas D., A.D. Smith, R.L. Aalbu (Eds) Vaurie Mongraph honoring Charles A. Triplehorn. 2015. The Coleopterists Bulletin, 69 (no4).

Editor: Bouchard P, Smith AD (Eds) Proceedings of the Third International Tenebrionoidea Symposium, Arizona, USA, 2013. ZooKeys 2014.

Review Editor (2013 – present), Frontiers in Ecology and Evolution

Councilor (2009 – 2010), Coleopterists Society

Manuscript Review: Annals of the Entomological Society of America, Annales Zoologici, Cladistics, Coleopterists Bulletin, Evolutionary Biology, PLoS One, Revista Mexicana de Biodiversidad, ZooKeys, Zootaxa.

OUTREACH ACTIVITIES (2014 – 2017)

Presentations on arthropod biodiversity, including live and mounted displays, have been given to over 400 pre-K – 12th grade students from: Flagstaff Festival of Science, Upward Bound, The Arboretum at Flagstaff's Eco Explorers Summer Camps, and Montessori Schools of Flagstaff.

FELLOWSHIPS, GRANTS, AND AWARDS (\$819,345 to date)

13. NAU – Pilot Grants Program [2015 – 2016].

Preliminary data for a phylogenomic study of the desert darkling beetles. PI **Aaron Smith**; \$48,000.

12. NAU – Faculty Grants Program [2015 – 2016]. Climate change over the last 40,000 years: *Stenomorpha* darkling beetles (Coleoptera: Tenebrionidae) and the desertification of western North America. PI **Aaron Smith**; \$14,979.

11. NSF – Advancing Revisionary Taxonomy and Systematics Program [2013 – 2015]

DEB-1258154 Systematics of the darkling beetle genus *Eleodes*: Integrating morphology, DNA, and biodiversity informatics to resolve a taxonomically impeded genus. PI **Aaron Smith**; co-PI Nico Franz; \$458,104 [\$290,526 transferred to NAU as DEB-1523605]

10. NSF – Advancing Digitization of Biological Collections Program [2012 – 2015]

EF-1207107 Southwest Collections of Arthropods Network (SCAN): A Model for Collections Digitization to Promote Taxonomic and Ecological Research. PI Nico Franz; co-PIs **Aaron Smith**, Quentin Wheeler, & James Hanken; \$284,612

9. Hutson Travel Grant [2009] – \$400 (Michigan State University)

8. Carolyn Rice Bartlett Grant [2009] – \$2,340 (CRB Foundation)

7. Dissertation Continuation Fellowship [2009] – \$6,000 (MSU, College of Natural Science)

6. Hutson Research Grant [2008] – \$1,200 (Michigan State University)

5. Hutson Travel Grant [2008] – \$400 (Michigan State University)

4. Hutson Travel Grant [2007] – \$350 (Michigan State University)

3. Hutson Travel Grant [2006] – \$300 (Michigan State University)

2. Ernst Mayr Travel Grant in Animal Systematics [2006] – \$1,160 (Harvard University)

1. Theodore Roosevelt Memorial Grant [2006] – \$1,500 (American Museum of Natural History)

GRANTS SUBMITTED OR IN PREPARATION

NSF – DEB – Phylogenetic Systematics [2018 – 2020]. Title: ARTS – Desert Darkling Beetle (Tenebrionidae: Pimeliinae) Phylogenomics: Revision, historical biogeography, and adaptations to arid environments over the last 100 million years. Requested budget: \$878,751. Status: Full proposal submitted August 2017, pending

NSF – Faculty Early Career Development (CAREER) Program [2018 – 2023].

Title: *Stenomorpha* darkling beetles (Coleoptera: Tenebrionidae): phylogenetic revision, biogeography, and the desertification of western North America. PI Aaron Smith. Requested budget: \$850,697. Status: Submitted July 2017, pending

MENTORING

Postdoctoral Researchers

Dr. Kojun Kanda

Graduate Students

Elliot Hunsinger (Ph.D., 2017 – present, NAU), **Committee Chair**
Ryan Lumen (MSc, 2016 – present, NAU), **Committee Chair**
Amelia Smith (Ph.D., 2017 – present, NAU), **Committee Chair**
Beauchamp Thomas (MSc, 2016 – present, NAU), **Committee Chair**
Christopher Wirth (MSc, 2015 – present, NAU), **Committee Chair**
M. Andrew Johnson (Ph.D., 2013 – present, ASU), **Committee Member**
Rebecca Beresic-Perrins (Ph.D., 2010 – present, NAU), **Committee Member**
Julia Hull (Ph.D., 2015 – present, NAU), **Committee Member**
Beverly Maxwell (MSc, 2010 – present, NAU), **Committee Member**
Anya Metcalfe (MSc, 2015 – present, NAU), **Committee Member**
Lois Neff (MSc, 2017 – present, NAU), **Committee Member**
Michael Rotter (Ph.D., 2014 – present, NAU), **Committee Member**
Samuel Skibicki (MSc, 2014 – 2017, NAU), **Committee Member**
Derek Uhey (Ph.D., 2016 – present, NAU), **Committee Member**
Julie Wachara (MSc, 2016 – present, NAU), **Committee Member**
Kimberly Whitley (MSc, 2014 – present, NAU), **Committee Member**
Rhea Zagar (MSc, 2015 – 2017, NAU), **Committee Member**

Undergraduate Students (Since Fall 2014, NAU only)

Lucio Sanchez (2014 – 2016)	Victoria Wiley (2015 – 2016)
Priscila Navarrete (2014 – 2016)	Tyler Harwood (2015 – 2016)
Zane Holditch (2014 – 2016)	Guillermo Vera (2015 – 2016)
Christopher Russell (2014 – 2015)	Nathan Solliday (2016 – 2017)
Lindsay Wilson (2014 – 2015)	Jacob Thompson (2016 – 2017)
Liana O'Connor (2014 – 2015)	Katherine Harper (2015 – 2016)
Andrew Robertson (2014 – 2015)	Alexis Galvez (2017)
Taylor Walker (2015 – 2016)	Mark Ecker (2017 – present)
Jenica Knaupp (2015 – 2016)	Angela Rincon (2017 – present)
Connor Rennard (2015 – present)	Jazlee Crowley (2017 – present)
David Mai (2015 – 2016)	Kali Switchenburg (2017 – present)
Daniel Kimball (2015 – 2016)	Joseph Stammen (2017 – present)
Sierra Campbell (2015 – 2016)	Victoria Vargas (2017 – present)

FIELD EXPERIENCE

Guatemala, August 2016
Argentina: Mendoza, November–December 2015
Mexico: Chiapas, Oaxaca, Veracruz, August 2015
Mexico Baja Sur, May 2015
Namibia and South Africa, April–May 2015, January 2017, May–June 2017
Mexico: Sonora, August 2011
Mexico: Baja Sur, August 2009
Panama, August 2008
Mexico: Puebla, Federal District, Puebla, Tlaxcala, Oaxaca, Morelos, July 2008
Trinidad, July 2004

Western US: AZ, NM, TX, CA, CO, WY, ND, SD, MT, multiple trips per year from 2005 to present

ENTOMOLOGICAL COLLECTIONS VISITED

American Museum of Natural History. New York, NY
C.A. Triplehorn Insect Collection. Ohio State University, Columbus, OH
California Academy of Sciences. San Francisco, CA
California State Collection of Arthropods. Sacramento, CA
Colección Nacional de Insectos. Mexico City, Mexico
Ditsong Museum. Pretoria, South Africa
Essig Museum of Entomology. Berkeley, CA
Field Museum of Natural History, Chicago, IL
Frank M. Hasbrouck Insect Collection. Tempe, AZ
Frost Entomological Museum, Penn. State University. State College, PA
Illinois Natural History Survey. Champaign, IL
Iziko Natural History Museum. Cape Town, South Africa
Museum für Naturkunde der Humboldt Universität. Berlin, Germany
Muséum National d'Histoire Naturelle. Paris, France
Museum of Comparative Zoology. Cambridge, MA
Museum of Southwestern Biology. Albuquerque, NM
Namibian National Insect Collection. Windhoek, Namibia
National Museum of Natural History. Washington, D.C.
Natural History Museum. London, UK
North Carolina State University Insect Museum. Raleigh, NC
Oregon State Arthropod Collection, Corvallis, OR
Smithsonian Tropical Research Institute Collection. Panama City, Panama
Staatliches Museum für Naturkunde. Stuttgart, Germany
Texas A&M Insect Collection. College Station, TX
University of California – Riverside Entomological Research Museum. Riverside, CA
Universidad del Valle de Guatemala Colección de Artrópodos. Guatemala City, Guatemala
University of Michigan Museum of Zoology. Ann Arbor, MI
University of Nebraska State Museum. Lincoln, NE
University of Texas Entomology Collection. UT Austin, Austin, TX
University of the West Indies Collection. St. Augustine, Trinidad
Zoologische Staatssammlung. Munich, Germany

DATABASES AND WEBSITES MAINTAINED

insectbiodiversitylab.org: Smith Lab website.

tenebrionidbase.org: Web portal for database serving worldwide darkling beetle taxonomy, literature, distribution maps, literature, images, multi-entry keys, and links to related/associated information.