

**Jessica L. Beckham**  
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210-845-8292

## **EDUCATION**

Ph.D., Environmental Science  
University of North Texas, Denton, TX (2016)  
Dissertation Topic: Influence of Urban Green Spaces on Bumble Bees (Hymenoptera: Apidae)

M.S., Biology: Teaching in the Life Sciences  
University of North Texas, Denton, TX (2007)

B.S., Biology  
University of Texas, Austin, TX (2005)

## **TEACHING EXPERIENCE**

Lecturer II  
University of Texas at San Antonio, August 2017 – current.  
Courses Taught: Environmental Systems I (ES 2013), Environmental Zoology (ES 1123)

Adjunct Faculty  
Southern New Hampshire University COCE, March 2017 – current  
Courses Taught: General Biology I, Conservation Biology

Adjunct Faculty  
University of North Texas, July 2017 – August 2017.  
Courses Taught: Biology I for majors (BIOL 1710)

Biology Teaching Assistant  
University of North Texas, Jan. 2012 – June 2015  
Courses Taught: Biology Lab I for Majors, Biology Lab II for Majors, and Biology I Recitation for Majors

Secondary Science Teacher  
L.A.S.A. High School, Austin ISD, Aug. 2007 – June 2010  
Courses Taught: Pre-AP Biology and Pre-AP Physics

Biology & Math Teacher  
Upward Bound, University of North Texas, June 2006 – July 2007  
Courses Taught: Biology, Anatomy & Physiology, and Math Logic

Biology Teaching Assistant  
University of North Texas, Aug. 2005 – May 2007  
Courses Taught: Biology Lab for Education Majors, Biology Lab I for Majors, and Community Ecology Lab

## RESEARCH EXPERIENCE

### Postdoctoral Research Associate

University of North Texas Institute of Applied Science, Aug. 2016 – Dec. 2017

Project: Assessing the current distribution and taxonomic status of *Bombus sonorus* (*Bombus pennsylvanicus sonorus*) in Texas

### Research Assistant

University of North Texas Institute of Applied Science, Jan. 2016 – Aug. 2016

Project: Modeling *Bombus pennsylvanicus*, *Bombus sonorus* and *Bombus fraternus* spatial distributions in Texas

### Research Assistant

University of North Texas Institute of Applied Science, June – Dec. 2015

Project: Utilization of urban green spaces by bumble bees (*Bombus* spp.) in Denton County

### Research Assistant

University of North Texas Institute of Applied Science, Jan. – Oct. 2014

Project: Field surveys to assess the persistence of bumble bee species (*Bombus* spp.) in northeast Texas.

### Research Assistant

University of North Texas Institute of Applied Science, July – Aug. 2013

Project: Persistence of bumble bee species in north Texas

### Research Assistant

University of North Texas, Computational Epidemiology Research Laboratory, Aug. 2010 – Dec. 2011

Project: REPLAN, a computational framework for assessing the feasibility of bio-emergency Response

### Research Assistant

University of Texas at Austin, Abbott Lab, Jan. – Dec. 2008

Project: G.I.S. rendering of Camp Swift Army Base Mammal Survey

## PUBLICATIONS

Beckham, J., Atkinson, S. 2017. An updated understanding of Texas bumble bee (Hymenoptera: Apidae) species presence and potential distributions in Texas, USA. *PeerJ*. 5: e3612  
<https://doi.org/10.7717/peerj.3612>.

Beckham, J., Warriner, M., Atkinson, S., Kennedy, J. 2016. The persistence of bumble bees (Hymenoptera: Apidae) in northeastern Texas. *Proceedings of the Entomological Society of Washington* 118 (4): 481-497.

## CONFERENCE ACTIVITY

Beckham, J. Use of urban green spaces by bumble bees in Denton County. Presented seminar at: 2<sup>nd</sup> Annual University of North Texas GABRAF Conference; June 20, 2014; Denton, TX.

Beckham, J., Atkinson, S., Mikler, A., Kennedy, J. Utilization of urban green spaces by bumble bees (*Bombus* spp.) in Denton County. Poster presented at: University of North Texas Graduate School Exhibition; March 1, 2014; Denton, TX.

Beckham, J., Atkinson, S., Mikler, A., Kennedy, J. Habitat utilization by bumble bees (*Bombus* spp.) in Denton County, Texas. Poster presented at: 61st Annual Meeting of the Entomological Society of America; Nov. 10 – 13, 2013; Austin, TX.

Beckham, J., Atkinson, S., Mikler, A., Kennedy, J. Utilization of urban green spaces by bumble bees (*Bombus* spp.) in North Texas. Poster presented at: 36<sup>th</sup> Annual Meeting of the Society of Ethnobiology; May 15 – 18, 2013; Denton, TX.

Beckham, J. Habitat utilization by bumble bees (*Bombus* spp.) in Denton County. Presented seminar at: 1<sup>st</sup> Annual University of North Texas GABRAF Conference; July 16, 2013; Denton, TX.

Beckham, J., Atkinson, S., Mikler, A., Kennedy, J. Surveying and predicting the effects of landscape on north Texas bee (Hymenoptera: Apiformes) communities. Poster presented at: University of North Texas Graduate Research Day; March 31, 2012; Denton, TX.

Bravo-Salgado, A., Beckham, J., Mikler, A. Modeling malaria: stretch-delay effect of temperature on the sporogonic cycle and disease dynamics. Poster paper presented at: ACM-BCB 2011. *Proceedings of the 2nd Annual ACM Conference on Bioinformatics, Computational Biology and Biomedicine*; August 1 – 3, 2011; Chicago, IL.

Mikler, A., Bravo-Salgado, A., Beckham, J. Modeling the impact of seasonality on the sporogonic cycle of *Plasmodium falciparum* in *Anopheles* mosquitoes. Poster presented at *DOD-CDMRP/-TATRC Symposium*; October 20, 2010; Denton, TX.

## **PUBLIC OUTREACH**

Beckham, J. “Texas Bumble Bees.” Thirst for Nature, Cibolo Nature Center. February 15, 2018.

Beckham, J. “The Texas Bumble Bee.” Arlington Conservation Council. June 7, 2017.

Beckham, J. and Nugent, J. UNT Bioblitz and iNaturalist Training. April 14, 2017.

Beckham, J. “The Texas Bumble Bee.” UNT Retiree Association. March 22, 2017.

Beckham, J. “Conservation of North Texas Bumble Bees.” UNT Emeritus College. April 18, 2016.

Beckham, J. “Conservation of North Texas Bumble Bees.” Denton Organic Society. March 16, 2016.

Beckham, J. “Texas Bumble Bees and Urban Systems Management.” Texas Pollinator Powwow. September 19 – 20, 2015.

Beckham, J. “Conservation of Bumble Bees in North Texas.” UNT Speaks Out on Bees. September 9, 2015.

Beckham, J. “Native Pollinators.” City of Frisco Waterwise Brown Bag Workshop. July 24, 2015.

Beckham, J. “Conservation of Bumble Bees in North Texas.” Elm Fork Chapter of the Texas Master Naturalists meeting. July 16, 2015.

Beckham, J. "Conservation of Bumble Bees in North Texas." Fort Worth Chapter of the Native Prairies Association of Texas meeting. July 13, 2015.

Beckham, J. "Conservation of Bumble Bees in North Texas." Trinity Forks Chapter of the Native Plant Society of Texas meeting. May 28, 2015.

Beckham, J. "Bumble Bees of Northeast Texas." North Texas Master Naturalists Native Plants and Prairie Day. May 2, 2015.

Beckham, J. "Utilization of Urban Spaces for Bumble Bee Habitat." Cross Timbers Master Naturalist meeting. April 20, 2015.

Beckham, J. "Attracting bumble bees." North Haven Gardens. March 14, 2015.

Beckham, J. "Bumble bees in urban places." First Annual Texas Pollinator Powwow. November 15, 2014.

Beckham, J. "Urban bumble bees in Denton County." Dallas Chapter of the Native Plant Society of Texas meeting. August 18, 2014.

Beckham, J. "Bumble bees of Denton County." Clear Creek Natural Heritage Center Nature Series. April 19, 2014.

## **MEDIA**

Fisher, Alan. "[The Bee Searcher.](#)" *Texas Parks and Wildlife Department Television Show.* Texas PBS Stations. January 15-21, 2017. Television.

Minton, Leslie. "[Women find STEM research opportunities, leadership roles at UNT.](#)" *The North Texan.* November 16, 2015. Web.

Duncan, Jenna. "[Despite national decline, bumblebees thrive in county.](#)" *Denton Record-Chronicle.* July 9, 2015. Print.

Saegert, Rhiannon. "[UNT graduate student leads bee research efforts.](#)" *On the Record: North Texas Daily Magazine.* July 9, 2015. Print.

["Bumblebee Toes Help UNT Researcher Track Bee Population."](#) Reporter Lauren Silverman. *KERA Breakthroughs.* KERA 90.1 FM, Dallas, TX. May 6, 2015. Radio.

Montacer, Naima. "[Be aware of the value of bees.](#)" *Katy Trail Weekly.* September 2014. Print.

Nagy, Monica. "[Is urban sprawl in Texas swatting out bumble bees?](#)" *Fort Worth Star Telegram.* July 6, 2014. Print.

Knopp, Joshua. "[Student's bee find bodes well for Denton green spaces.](#)" *NT Daily.* September 17, 2013. Print.

["Students Help Study Bee Population."](#) Reporter Brian Scott. *NBC 5 Evening News.* NBC 5 DFW, Dallas-Fort Worth. July 25, 2013. Television.

## SCHOLARSHIPS AND HONORS

- Beth Baird Tuition Scholarship recipient, University of North Texas, *Fall 2010 – Spring 2016*
- Outstanding Biology Teaching Assistant, University of North Texas, *2014 - 2015*
- First Place President's Prize Award, Entomological Society of America, *Nov. 2013*
- University of North Texas CAS Travel Grant, *Nov. 2013*
- University of North Texas Scholarship, University of North Texas, *Fall 2012 – Spring 2013*
- University Scholarship Committee Continuing Student Scholarship, University of North Texas, *2011 – 2012*
- NSF Travel Grant for ACM-BCB 2011 Conference, *Summer 2011*
- Robert Noyce Scholarship, University of North Texas, *Fall 2006 – Spring 2007*
- National Chancellor's List honoree, *Spring 2006*
- National Dean's List honoree, *Spring 2004 and Spring 2007*
- National Merit Scholarship, University of Texas at Austin, *2000 – 2004*
- National Merit Finalist, Texas, *2000*

## AFFILIATIONS AND SERVICE

- Pollinator Garden committee member, UTSA Environmental Science Department, *2017- current*
- Bee Campus U.S.A. committee member, University of North Texas, *2016 - 2017*
- Entomological Society of America member, *2013 – current*
- Texas Pollinator Powwow steering committee founding member, *2014-2016*
- Society of Ethnobiology member, *2013 – 2014*
- Silvey Society member, University of North Texas, *inducted Fall 2012*
- Phi Kappa Phi member, University of North Texas, *inducted Fall 2011*
- Beta Beta Beta National Biological Honor Society member, University of Texas at Austin, *2001 2004*
- Phi Sigma Theta National Honor Society member, University of Texas at Austin, *2001 – 2004*

## RESEARCH GRANTS

Texas Parks and Wildlife Department State Wildlife Grant, 2016

Title: "Assessing the current distribution and taxonomic status of *Bombus sonor* (*Bombus pensylvanicus sonor*) in Texas"

Amount: \$91,243; PIs: Sam Atkinson and Jeff Johnson

Texas Parks and Wildlife Department State Wildlife Grant, 2015

Title: "Modeling *Bombus pensylvanicus*, *Bombus sonor* and *Bombus fraternus* (bumble bees) spatial distributions in Texas."

Amount: \$38,000; PI: Sam Atkinson

Texas Parks and Wildlife Department State Wildlife Grant, 2014

Title: "Field surveys to assess the persistence of bumble bee species (*Bombus* spp.) in northeast Texas."

Amount: \$22,790 ; PI: Sam Atkinson

Texas Parks and Wildlife Department: Horned Lizard License Plate Grant, 2013  
Title: "Survey to determine persistence of bumble bee species in North Texas"  
Amount: \$4,000; PI: Sam Atkinson

University of North Texas: Research Opportunity Program Grant, 2012  
Title: "Examination of bee colony composition and habitat utilization by use of in-situ field measurements and ultra-high resolution remote sensing imagery"  
Amount: \$5,000; PI: Sam Atkinson

**PROFESSIONAL CERTIFICATIONS**

- Standard Texas Educator Certificate, Composite Science 8-12, *May 2007 – current*
- Graduate Certificate in G.I.S., University of North Texas, *May 2007*