

# Tedward Erker

## CONTACT INFORMATION

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Phone: 314-324-6079  
Email: [tedward.erker@gmail.com](mailto:tedward.erker@gmail.com)  
Web: [pages.stat.wisc.edu/~erker](http://pages.stat.wisc.edu/~erker)  
github: <https://github.com/tedwarderker>  
Address: 425 N Baldwin St, Madison, WI 53703

## EDUCATION

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Sep 2013 - May 2019 (expected)	<b>Ph.D. Forestry</b> Department of Forest and Wildlife Ecology University of Wisconsin–Madison GPA: 3.929
Sep 2013 - May 2019 (expected)	<b>M.S. Biometry</b> Department of Statistics University of Wisconsin–Madison
Aug 2006 - May 2008 & Aug 2009 - May 2010	<b>B.A. Environmental Studies–Ecology/Biology</b> Summa Cum Laude Washington University in St. Louis GPA: 3.83

## AWARDS, GRANTS, AND FELLOWSHIPS

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Jan 2018	<a href="#">Stan Conference 2018</a> Scholarship
2015-2018	NASA Earth and Space Science <a href="#">Fellowship</a> \$105,000
Sep 2016	Mapping Wisconsin's Urban Tree Canopy (co-author), Wisconsin Department of Natural Resources \$50,000
Oct 2016	<a href="#">George Kress Award</a> for Outstanding Contribution of a Forestry Graduate Student \$1,000
May 2016	Travel Award, UW-Madison Department of Forest and Wildlife Ecology
Mar 2016	<a href="#">Cool Science Image contest winner</a> , "Madison Lakes"
May 2010	<a href="#">Outstanding Overall Achievement in Environmental Studies</a> (highest award in major), Washington University in St. Louis

Jun 2008     [Tyson Research Center Summer Undergraduate Research Fellowship](#)  
\$3,750

## PRESENTATIONS

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November     [Mapping Urban Tree Canopy of Wisconsin](#)  
2016     Society of American Foresters National Convention. Madison, WI.

## POSTERS

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April 2018     [Functional and Species Diversity of Trees in Urban Streets](#)  
NASA Biodiversity and Ecological Forecasting Team Meeting in Washington, D.C.

May 2016     [How Does Structural and Functional Diversity of the Urban Forest Affect the Urban Heat Island and Building Energy Use in Madison, WI?](#)  
NASA Biodiversity and Ecological Forecasting Team Meeting in Silver Springs, MD.

## TEACHING EXPERIENCE

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Spring 2015     **Statistical Methods for Bioscience II Teaching Assistant**  
Led 2 weekly discussion groups, graded homework and exams for this graduate-level course. Prof. Murray Clayton.

Fall 2013 and     **Forest Ecology Teaching Assistant**  
Fall 2014     Redesigned, created and independently implemented lab lessons in field and computer lab for ~70 students. Prof. Tom Gower (2013) and Prof. Phil Townsend (2014).

Spring 2014     **Living With Wildlife Teaching Assistant**  
Graded journals and exams, assisted students during office hours. Prof. Stan Temple.

August 2010 -     **High School Chemistry and Biology Teacher**  
May 2012     Educated over 120 students in six classes daily. As first year teacher, developed chemistry curriculum for new charter school integrating College Readiness Standards with Missouri Science Standards. Cross-country coach. [Confluence Preparatory Academy](#). St. Louis, MO.

June 2010 -     **Teach For America Corps Member**  
May 2012     Selected from over 46,000 applicants nationwide to join the national teacher corps of recent college graduates who commit two years to teach in under-resourced public schools. Chicago, IL & St. Louis, MO.

## MENTORING

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My undergraduate mentees research a topic, collect new data, perform statistical analyses, and write final papers to complete small research projects. They create posters or presentations to share their work.

Fall 2017      **Cheyenne Brandt**

Undergraduate Research Project: Effect of Leaf Area and Tree Canopy on the Urban Heat Island of Madison, WI.

Fall 2015      **Bobby Shepherd**

Undergraduate Research Project: Investigating the influence of the urban heat island on autumn phenology of Norway Maple (*Acer platanoides*) with smart-phone hemispherical photos.

## RELEVANT WORK EXPERIENCE

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August 2013 -  
December  
2014

### **Arborist**

Worked part time as ground crew, hauling brush and aiding climber. Developed online Wisconsin tree species identification application. [Urban Tree Alliance](#), Non-profit. Madison, WI.

February  
2013 - August  
2013

### **Arborist**

Performed ground crew work, climbed, and as certified pesticide applicator treated for a number of pests including the emerald ash borer. [American Tree Experts](#). New Berlin, WI

March 2007 -  
May 2010

### **Greenhouse Assistant**

Water, transplant, propagate plants; maintain greenhouse. Work-Study at [Washington University Plant Research Facility](#). St. Louis, MO.

April -  
August 2009

### **Farm Education Intern and Farmer**

Organized and guided trips of 16-40 students at farm and wilderness education center. Managed 3/4 acre garden and cared for sheep, goats, chickens, pigs, and cows as part of farm team. [Farm And Wilderness Summer Camps](#). Plymouth, VT.

May - August  
2008

### **Research Assistant**

Sampled vegetation, identified over 100 plant species as part of study to explore phylogenetic relationships in invasiveness. Tyson Research Center. Eureka, MO.

## PROFESSIONAL AFFILIATIONS

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Society of American Foresters, 2016–Present

## LANGUAGES

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Spoken: English, Spanish

Computing: R

## SERVICE TO THE DEPARTMENT AND UNIVERSITY

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Oct 2015 - Present     **Graduate Student Representative, Department of Forest and Wildlife Ecology**

Jul 2017     **Software Carpentry Volunteer**

## SERVICE TO COMMUNITY

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Fall 2014 and Fall 2015     **Guest Lab Instructor, Sustainability by the Numbers, Shabazz High School**

Fall 2017     **Guest Lab Instructor, AP Environmental Studies, East High School**

## GRADUATE COURSEWORK

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Semester	Code	Course	Credits	Grade
F 2013	F&W ECOL 309	Diseases of Trees and Shrubs	3	A
	F&W ECOL 415	Tree Physiology	3	A
	HORT 571	Statistical Methods for Bioscience I	4	A
S 2014	PL PATH 800	Inquiry-Based Biology Teaching	1	A
	STAT 692	Intermediate Data Analysis with R	1	A
	F&W ECOL 410	Principles of Silviculture	audit	S
	STAT 572	Statistical Methods for Bioscience II	4	A
	PL PATH 801	Teaching Biology: Special Topics	1	A
Su 2014	STAT 692	Advanced Data Analysis with R	1	A
	MATH 234	Calculus–Functions of Variables	4	S
	F 2014	F&W ECOL 875	Field Methods in Remote Sensing	1
S 2015	SOIL SCI 532	Environmental Biophysics	3	A
	STAT 311	Intro Mathematical Statistics I	3	A
	BMI 826	Tools for Reproducible Research	1	A
	ENVIR ST 556	Remote Sensing Digital Image Processing	3	A
	STAT 312	Intro Mathematical Statistics II	3	AB
Su 2015	STAT 692	Teaching Statistics	1	A
	STAT 699	Statistical Consulting	3	A
	F 2015	STAT 575	Statistical Methods-Spatial Data	3
S 2016	STAT 679	Multilevel Models	3	A
S 2017	ZOOLOGY 725	Ecosystem Concepts	3	