

# Tedward Erker

I seek to understand the interaction between humans and the environment in the places where most of us live: cities.

## CONTACT INFORMATION

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## EDUCATION

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Sep 2013 - Present	<b>Ph.D. Forestry</b> Department of Forest and Wildlife Ecology University of Wisconsin–Madison GPA: 3.929
Sep 2013 - Present	<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</a> winner, "Madison Lakes"

May 2010	<a href="#">Outstanding Overall Achievement in Environmental Studies</a> (highest award in major), Washington University in St. Louis
Jun 2008	<a href="#">Tyson Research Center Summer Undergraduate Research Fellowship</a> \$3,750

## PRESENTATIONS

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November 2016	<a href="#">Mapping Urban Tree Canopy of Wisconsin</a> Society of American Foresters National Convention. Madison, WI.
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## POSTERS

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April 2018	<a href="#">Functional and Species Diversity of Trees in Urban Streets</a> NASA Biodiversity and Ecological Forecasting Team Meeting in Washington, D.C.
May 2016	<a href="#">How Does Structural and Functional Diversity of the Urban Forest Affect the Urban Heat Island and Building Energy Use in Madison, WI?</a> NASA Biodiversity and Ecological Forecasting Team Meeting in Silver Springs, MD.

## TEACHING EXPERIENCE

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Spring 2015	<b>Statistical Methods for Bioscience II Teaching Assistant</b> Led 2 weekly discussion groups, graded homework and exams for this graduate-level course. Prof. Murray Clayton.
Fall 2013 and Fall 2014	<b>Forest Ecology Teaching Assistant</b> 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	<b>Living With Wildlife Teaching Assistant</b> Graded journals and exams, assisted students during office hours. Prof. Stan Temple.
August 2010 - May 2012	<b>High School Chemistry and Biology Teacher</b> 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. <a href="#">Confluence Preparatory Academy</a> . St. Louis, MO.

June 2010 - May 2012	<p><b>Teach For America Corps Member</b></p> <p>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 &amp; St. Louis, MO.</p>
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## MENTORING

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<p>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.</p>	
Fall 2017	<p><b>Cheyenne Brandt</b></p> <p>Undergraduate Research Project: Effect of Leaf Area and Tree Canopy on the Urban Heat Island of Madison, WI.</p>
Fall 2015	<p><b>Bobby Shepherd</b></p> <p>Undergraduate Research Project: Investigating the influence of the urban heat island on autumn phenology of Norway Maple (<i>Acer platanoides</i>) with smart-phone hemispherical photos.</p>

## RELEVANT WORK EXPERIENCE

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August 2013 - December 2014	<p><b>Arborist</b></p> <p>Worked part time as ground crew, hauling brush and aiding climber. Developed online Wisconsin tree species identification application. <a href="#">Urban Tree Alliance</a>, Non-profit. Madison, WI.</p>
February 2013 - August 2013	<p><b>Arborist</b></p> <p>Performed ground crew work, climbed, and as certified pesticide applicator treated for a number of pests including the emerald ash borer. <a href="#">American Tree Experts</a>. New Berlin, WI</p>
March 2007 - May 2010	<p><b>Greenhouse Assistant</b></p> <p>Water, transplant, propagate plants; maintain greenhouse. Work-Study at <a href="#">Washington University Plant Research Facility</a>. St. Louis, MO.</p>
April - August 2009	<p><b>Farm Education Intern and Farmer</b></p> <p>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. <a href="#">Farm And Wilderness Summer Camps</a>. Plymouth, VT.</p>
May - August 2008	<p><b>Research Assistant</b></p> <p>Sampled vegetation, identified over 100 plant species as part of study to explore phylogenetic relationships in invasiveness. Tyson Research Center. Eureka, MO.</p>

## 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	
	STAT 692	Advanced Data Analysis with R	1	A	
	Su 2014	MATH 234	Calculus–Functions of Variables	4	S
	F 2014	F&W ECOL 875	Field Methods in Remote Sensing	1	A
	SOIL SCI 532	Environmental Biophysics	3	A	
	STAT 311	Intro Mathematical Statistics I	3	A	
	S 2015	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	
	STAT 692	Teaching Statistics	1	A	
	Su 2015	STAT 699	Statistical Consulting	3	A
	F 2015	STAT 575	Statistical Methods–Spatial Data	3	AB
S 2016	STAT 679	Multilevel Models	3	A	
S 2017	ZOOLOGY 725	Ecosystem Concepts	3		