

CURRICULUM VITAE

1. PERSONAL INFORMATION

Name: **William Edward Rogers**
Rank: Professor
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2. EDUCATION

Undergraduate: Gustavus Adolphus College, St. Peter, MN
Chemistry, B.A.; Biology minor September 1987 - May 1991
Biology, B.A. September - December 1991

Graduate: Kansas State University, Manhattan, KS
Biology, Ph.D.; Ecology emphasis January 1993 - December 1998

Post-doctoral: Rice University, Houston, TX
Ecology and Evolutionary Biology January 1999 - July 1999

3. PROFESSIONAL EXPERIENCE

3.1 *Current Position*

September 2014-present Texas A&M University, College Station, Texas.

Full Professor, Department of Ecosystem Science and Management on a nine-month academic appointment with responsibilities including Teaching, Research, Professional and University Service and Administrative Duties. Salary sources include the College of Agriculture and Life Sciences at Texas A&M University and Texas A&M Agrilife Research. In addition to the nine month academic appointment, soft dollar support must be obtained from contracts and grants to receive salary during June, July and August.

a) General position description

Full Professor with tenure in the Department of Ecosystem Science and Management, Texas A&M University, College Station, Texas. Establish and conduct teaching and research programs in plant ecology, invasive species biology and ecological restoration.

b) Specific Duties

i) Teaching

Teach an introductory, 3-credit undergraduate lecture course in terrestrial ecosystem restoration and management (ESSM 320) and co-teach a 3-credit writing-intensive, capstone course in advanced ecological restoration (ESSM 430) each spring. Periodically teach directed studies courses (ESSM 485 and ESSM 685) when appropriate. Regular participation in TAMU Study Abroad teaching program (ESSM 482 & RENR 400) in Southern Africa is encouraged. Finally, annual participation in teaching for the interdisciplinary doctoral degree program in Ecology and Evolutionary Biology (EEBL 602) is endorsed. Teaching assignments are subject to change at the discretion of the department chair. Other duties include training undergraduate research assistants by providing them opportunities to assist with graduate student research projects and conduct independent research studies, student advising, counseling and related committee and departmental activities.

ii) Research

Expectations are to develop an ecological research program that is funded by contracts and grants. Publications in quality journals and the development of a strong graduate program are required. Present findings at conferences, professional societies and workshops and continue to be recognized as a leader in the field of plant ecology, invasive species biology and ecological restoration.

iii) Service

Expectations include student mentoring, recommendation letter writing, involvement in miscellaneous university functions and departmental committees, participation in departmental functions, and contributions to appropriate professional duties such as peer-review for scientific journals and granting agencies, and applicable outreach, extension, and educational activities.

3.2 Past Positions and Experiences

September 2008 - August 2014 Texas A&M University, College Station, Texas.
Associate Professor, Department of Ecosystem Science and Management
Responsibilities included Teaching, Research, and Service contributions.

June 2005 – August 2008 Texas A&M University, College Station, Texas.
Assistant Professor, Department of Ecosystem Science and Management
(Original appointment in Department of Rangeland Ecology and Management)
Responsibilities included Teaching, Research, and Service contributions.

July 2003 - May 2005 Rice University, Houston, Texas
Faculty Fellow (grant-funded researcher), Department of Ecology & Evolutionary Biology.
Conducted funded studies assessing ecological and post-introduction evolutionary changes in invasive species along a biogeographic gradient of the southeastern US and compared these to common garden studies and experimental manipulations established in Hawaii and China. Contributed to departmental seminar series and journal clubs, advised graduate and undergraduate students.

July 1999 - July 2003 Rice University, Houston, Texas
Huxley Research Instructor (non-tenure research and teaching faculty), Department EEB.
Conducted funded research on exotic plant invasions in east Texas ecosystems. Taught undergraduate and graduate courses, contributed to departmental seminar series, led journal clubs and reading groups, advised graduate and undergraduate students.

January 1999 - June 1999 Rice University, Houston, Texas
Post-doctoral Research Assistant, Department EEB.
Performed studies and built new research laboratory focused on exotic plant invasions in east Texas ecosystems with Dr. Evan Siemann.

January 1993 - December 1998 Kansas State University, Manhattan, Kansas
Graduate Research Assistant, Division of Biology.
Ph.D. dissertation on "The Effects of Soil Disturbances in Tallgrass Prairie" examined the effects of specific patterns of animal generated soil disturbances and fire on plant population, community and ecosystem dynamics in a Kansas tallgrass prairie with Dr. David C. Hartnett.

September 1991 - December 1992 Gustavus Adolphus College, St. Peter, Minnesota
Research Technician, Department of Biology.
Examined the effects of white-tailed deer browse and gap disturbances on regeneration dynamics in Minnesota maple-basswood old-growth forests with Dr. Timothy W. Sipe.

4. HONORS AND AWARDS

4.1 Personal Honors and Recognition

2020	Mentor/Major Professor of Outstanding ESSM masters student of the year
2019	Mentor/Major Professor of Outstanding ESSM masters student of the year
2017-2018	Outstanding Undergraduate Instructor Award, TAMU ESSM Department
2014-2015	Outstanding Undergraduate Instructor Award, TAMU ESSM Department
2014-2015	Honors and Undergraduate Research Faculty Recognition
2014	Promotion to Full Professor in TAMU ESSM Department
2014	Appointed Editor-in-Chief for Plant Ecology (published by Springer-Verlag)
2014	Mentor/Major Professor of Outstanding ESSM doctoral student of the year
2014	Mentor/Major Professor of Outstanding ESSM masters student of the year
2013	Mentor for Outstanding ESSM Undergraduate Researcher of the year
2010	Mentor/Major Professor of Outstanding ESSM masters student of the year
2009	Mentor/Major Professor of Outstanding ESSM doctoral student of the year
2009	Mentor/Major Professor of Outstanding ESSM masters student of the year
2008	Tenure and Promotion to Associate Professor in TAMU ESSM Department
2001-2002	Departmental recognition for classroom innovation, Rice University
2001	Gustavus Adolphus First Decade Award Finalist for Professional Achievement
1997-1998	Edler Award for exemplary teaching and research by a KSU graduate student
1994-1995	Watkins Award for outstanding teaching by a KSU biology graduate student

4.2 Media Coverage of Research Program and Academic Achievements

(see <https://agrilife.org/wrogers/recent-press-releases/> for links to announcements)

- a) *Trends in Ecology and Evolution* 17:545-546, December 2002 - Presentation Highlighted
- b) *Science* 305:1100-1101, August 2004 - Professional Presentation Highlighted
- c) *Science Daily*, July 2011 – “Genetic evidence clears Ben Franklin” press-release
- d) *AgriLife Today*, December 2012 – “Native orchid protection and conservation subject of new AgriLife Research study” press-release
- e) *AgriLife Today*, March 2013 – “Researchers examine best range management practices for aquifer recharge” press-release
- f) *AgriLife Today*, May 2013- “Study compares recent drought to 1950s on woody plant mortality” press-release
- g) *Houston Chronicle*, July 2013 – “Texas losing war on feral hogs” newspaper story
- h) Great Plains Fire Science Exchange GFE Publication 2013-#23 “Manage woody plants in grasslands using thresholds.” A summary of Twidwell et al. 2013b
- i) Great Plains Fire Science Exchange GFE Publication 2013-#25 “Rising Great Plains fire campaign: citizen cooperatives.” A summary of Twidwell et al. 2013a
- j) TAMU ESSM April 2014 “Outstanding Graduate Student Awards for 2013-2014” web-release
- k) TAMU ESSM July 2014 “William E. Rogers appointed Editor-in-Chief for a major ecological journal” web-release
- l) TAMU ESSM September 2014 “Faculty Publication Achieves ‘Citation Classic’ Milestone” web-release
- m) *AgriLife Today*, January 2016 – “Increased legal liabilities limit prescribed fire use for brush control: Greater fire danger, deteriorating ecosystems could result.” Press-release.
- n) *AgriLife Today*, February 2016 – “Soil mapping may indicate success of brush control method.” Press-release.
- o) KSCN 88.5 – Los Angeles Radio Station Interview, February 2016 – Discussion regarding prescribed fire benefits and liability concerns.

- p) Great Plains Fire Science Exchange (A JFSP Consortium), March 2016 – Do liability and regulatory standards influence the amount of prescribed burning in the South? (GFE publication 2016-1).
- q) AgriLife Today, April 2016 – Forest understory fuels the flames.
- r) Progressive Cattleman Magazine, June 2016 – Is your brush-control dollar better spent on some soils than others? (www.progressivecattle.com PC0616_North pp. 20-21).
- s) Great Plains Fire Science Exchange (A JFSP Consortium), June 2016 – Prescribed fire liability fact sheet: standards of care by state (GFE publication 2016-7).
- t) TAMU-EEB/ESSM Announcement, September 2016 – Bill Rogers appointed as Texas Agricultural Experiment Station representative for the Texas Department of Agriculture Prescribed Burning Board.
- u) West Texas Rangelands - Texas A&M AgriLife Extension, October 2018 “Outside the Fire” weblog interview.
- v) Great Plains Fire Science Exchange (A JFSP Consortium), September 2019 - Mesquite and grass response to prescribed burning depends on fire intensity (GFE publication 2019-2).
- w) Morning AgClips News Release, April 2020 - "Fire, grazing enhance livestock production: Research project funded through a five-year, \$10 million USDA grant."

5. TEACHING PROGRAM

5.1 *Teaching Expectations* - Establish and conduct teaching in plant ecology and ecological restoration at the undergraduate and/or graduate level during fall and spring semesters.

5.2 *Current Courses Taught:*

Summary of Courses Taught at TAMU and Student Evaluations			
Course	Credit Hrs	Years Taught	Recent Student Evaluations (overall mean out of 5.0)
<i>Undergraduate courses</i>			
ESSM 320	3	Annually Spring 2013-2018	'14=4.55; '15=4.71 '16=4.39; '17=4.59; '18=4.73; '19=4.72 '20=4.50
ESSM 416	3	Annually Fall 2009-2018	'09=4.78; '10=4.49; '11=4.82 '12=4.88; '13=4.60; '14=4.76

			'15=4.59; '16=4.74; '17=4.93 '18=4.70
ESSM 485 -RENR400	6	Summer 2018, 2019, 2020	n/a
ESSM 430	3	Spring 2010, 2012 2014-2018	'14=4.83; '15=4.79 '16=4.99; '17=4.91; '18=4.93; '19=4.86 '20=4.86
<i>Graduate courses</i>			
EEBL 602	1	Annually Fall 2017-present	n/a
ESSM 626	3	Annually Fall 2009-2018	'09=4.95; '10=4.78; '11=4.71 '12=4.79; '13=4.71; '14=4.88 '15=4.81; '16=4.96; '17=4.84; '18=4.89
ESSM 685	1-3	Spring/Summer/Fall	n/a
ESSM 691	variable	Spring/Summer/Fall	n/a
5 = Strongly Agree; 4 = Agree; 3 = Undecided; 2 = Disagree; 1 = Strongly Disagree			

5.3 Past Courses Taught as Primary or Co-Instructor:

Summary of Courses Taught at Rice University and Student Evaluations			
Course & Title	Credit Hrs	Years Taught	Student Evaluations
BIOS 202 - Introductory Biology	3	Spring 2000 & Spring 2001	'00=2.62 (n=94); '01=2.63 (n=98)
BIOS 310 - Independent Study for Undergraduates	variable	Fall 1999-Spring 2005	n/a
BIOS 316 - Lab Module in Ecology	1	Fall 2000-2002	n/a
BIOS 325 - Ecology	3	Spring 2003	2.29 (n=39)
BIOS 563 - Topics in Ecology	1	Fall 1999-2004	'00=1.54 (n=9)
BIOS 568 - Topics in Biodiversity	1	Spring 2000-2005	n/a

1 = Outstanding; 2 = Excellent; 3 = Very Good; 4 = Good; 5 = Fair; 6 = Very Poor; 7 = N/A			
Summary of Past Courses Taught at Texas A&M University and Student Evaluations			
RLEM 320	2	Spring 2006-2012	'06=4.27; '07=4.53; '09=4.62; '10=4.62; '11=4.68; '12=4.68
RLEM 321	1	Spring 2006-2012	'06=4.51; '07=4.62; '09=4.7; '10=4.7 '11=4.84; '12=4.64
RLEM 485 -REN400	8	Summer 2012	'12=4.71 (South Africa)
RLEM 489 (Fire Course)	3	Fall 2006-2008	'06= 4.57; '07=4.71
RLEM 616	3	Fall 2006-2008	'06=4.0; '07='4.89
RLEM 681	1	Spring 2007/Fall 2011	'11=5.0
5 = Strongly Agree; 4 = Agree; 3 = Undecided; 2 = Disagree; 1 = Strongly Disagree			

*See Teaching Portfolio for Student Comments and detailed evaluation metrics from 2000-present. Evaluations during Spring & Fall 2008 are not available due to a failed attempt by the Texas A&M University to switch to a voluntary online course evaluation system.

5.4 Undergraduate TAMU Course Descriptions

- a) ESSM 320 – Ecosystem Restoration and Management (3 credit hours); formerly RLEM 320 - Principles of Ecological Landscape Restoration (2 credit hours)

This course presents a basic conceptual framework for restoration ecology and ecological restoration. Throughout the course, major principles of ecology are related to practical problems confronting humankind, such as, environmental pollution and degradation, exotic species invasions, land use and management tradeoffs and consequences, importance of biological diversity, and global change issues. Objectives for students include: i) the ability to describe basic structural and functional characteristics of healthy ecosystems and those ecosystems that are need of management to prevent further degradation due to threshold transitions, ii) being conversant in the basic concepts of autogenic recovery initiatives and capable of applying these concepts to process orientated ecological restoration, iii) being conscientious of the limitations and constraints to ecological restoration relative to the implications and effects of socioeconomic and historic circumstances of the ecosystem, and iv) the ability to apply these concepts to site location characteristics. While this course has historically been a MW 2-credit lecture and enrolls approximately 30-40 students each spring, it was designated to be a part of the ESSM core curriculum (ESSM 320) beginning in spring

2013 and expanded to a 3-credit lecture with a projection of >70 students enrolled annually.

b) RLEM 321 - Field Studies in Ecological Restoration (1 credit hour)

The primary goal of this course is to assist students in recognizing and assessing situations requiring ecological restoration based on their knowledge of the scientific discipline of Restoration Ecology and provide them with the technical and critical thinking skills necessary for making recommendations and devising strategies for repairing damaged wildlands. The objectives for this course include: i) making field site visits to areas requiring ecological restoration, ii) reinforcing the conceptual foundations of Restoration Ecology with practical experiences, iii) discussing and debating the appropriate management strategies for repairing landscape damage, iv) assessing trade-offs and potential shortcomings associated with these strategies, and v) evaluating social, political and economic considerations of ecological restoration objectives. This field course was offered every spring semester through 2012 (taught 7 times) and enrolled approximately 15 students annually.

c) ESSM 416 (formerly RLEM 489 in 2006 and RLEM 416 from 2007-2011) - Fire Ecology and Natural Resource Management (3 credit hours)

The goal of this course is to introduce students to the major aspects of wildland fire science including theoretical, empirical and practical components of fire research and management in a variety of ecosystems. A broad spectrum of the classic and current scientific fire literature is covered through formal lectures, multi-media presentations, assigned readings and group discussions. As circumstances and weather permit, attempts are also made to provide students with hands-on prescribed burning experiences. Objectives for students include: i) being able to discuss the ecological effects of fire in different ecosystems, ii) identifying the factors that control wildland fire behavior, iii) justifying the use of prescribed burning, iv) conducting a search for pertinent wildland fire science literature, and v) critically reviewing and analyzing research and management endeavors utilizing fire. This stacked course (with ESSM 626/RLEM 616) has been co-taught with Dr. Michael Messina (2006-2008), Dr. Dirac Twidwell (2009-2011), Dr. Mort Kothmann (2012-2017), and Dr. Joe Veldman (2018). In 2019 Dr. Veldman fully took over responsibility for this course. This course is offered every fall semester and regularly enrolls 25-40 students.

d) ESSM 430 - Advanced Restoration Ecology: Current Concepts & Emerging Issues (3 credit hours)

A reading and writing intensive capstone course where students will relate the scientific discipline of Restoration Ecology to current management practices and applications. Students will read broadly across the ecological scientific literature and compose weekly short papers, and journal submissions on a variety of topical restoration issues. Students will also gain practical experiences by exposure to invited professionals active in ecological restoration efforts. Objectives for students include: i) gaining the technical skills to constructively critique the methods, results and

interpretation of scientific publications, ii) developing the ability to translate and communicate scientific concepts to applications pertinent to restoration practitioners, iii) demonstrating clear, concise writing styles suitable for a professional audience, iv) extending key concepts to solve novel land management problems, and v) being able to recognize that novel concepts are often complex and dynamic and that assimilation of new information is a part of lifelong learning. This course is co-taught with Dr. Georgianne Moore, is offered every spring and enrolls between 10-15 students.

e) ESSM 485 - Directed Studies (variable credit hours)

I have frequently offered directed studies courses to students who either have a conflict with the existing course offerings in the department or who desire greater immersion in subject matter not thoroughly covered in our existing departmental course offerings. These directed studies courses have varied between 1-6 credit hours. Sometimes these offerings have taken the form of independent field or laboratory research projects and other times they involve a rigorous series of readings and writings addressing a particular ecological subject such as invasive species biology, ecological restoration, rangeland ecology and management, spatial assessments and quantification of vegetation patterns, or fire and plant community responses to disturbances.

f) ESSM 485/RENr 400 - Study Abroad in Natural Resources: The Ecological and Human Dimensions of Biodiversity, Conservation, and Nature-based Tourism in South Africa (4 and 2 credit hours respectively).

This paired course offering is required for students taking the 2018 and 2019 TAMU-Study Abroad course in South Africa in Biodiversity Conservation and Ecotourism. There were 14 and 16 students enrolled for this trip respectively. This course will meet weekly in the spring semester and departs for a 27 days in South Africa during late May-June (Rogers = 20 days, Kreuter = 15 days). The goal of the program is to explore the interactions between ecological, sociopolitical, economic, and human/land-tenure aspects of biodiversity conservation and nature-based ecotourism in a developing country. Group projects consist of 4-person teams completing a ~20-page research paper on an instructor provided topic and eight ~2-page case study short write-ups and presentations while in country. Daily group participation and activity involvement is also factored into each individual's grade. Individual projects consist of a 20-minute, pre-departure oral presentation on a self-selected topic, daily travel logs while in country, and positive engagement in group activities as TAMU ambassadors. The course will be offered annually with adequate enrollment.

In 2012, I served as a co-instructor with Drs. Urs Kreuter and Amanda Stronza for RLEM 485/RENr 400, for a similar study abroad course entitled "The Ecological and Human Dimensions of Biodiversity, Conservation, and Nature-based Tourism in Southern Africa." This 8-credit, 5-week course visited a variety of regions throughout South Africa, Lesotho, Botswana, Zimbabwe, and Zambia and focused on the ecological, economic, and human dimensions of wildlife conservation. There were 17 students enrolled in this course and despite some logistical and personality difficulties, comments and my scores for student evaluations (overall mean =4.71, n=17)

and subsequent direct feedback from participants several months post-trip suggests this was a life-altering and highly enriching experience for this group of young persons. This trip also provided an opportunity for me to better familiarize myself with the region in order to begin seeking additional funding and establishing new research studies that compare and contrast North American rangeland savannas with those of Southern Africa. I received a research award from the Howard Buffet Foundation/Borlaug Institute-AgriLife Research that allowed me to initiate some new ecological field experiments in the South African Highveld plains of the Limpopo District. Three of my graduate students and three undergraduate students participated in these efforts which provided an enriching educational opportunity and productive research collaboration. Future teaching/research collaborations abroad are anticipated and being actively pursued.

5.5 Graduate TAMU Course Descriptions

- a) ESSM 626 (formerly RLEM 616 from 2006-2011) - Fire Ecology and Natural Resource Management (3 credit hours)

See description for ESSM 416 above. Additional work for graduate students includes a poster presentation that is conducted in the style of a contributed poster presentation at a scientific meeting. Fellow students and professors in the course provide anonymous instructive feedback on each presentation to assist students with their organizational skills and professional development. Graduate students are graded on an independent curve from undergraduate students. In 2019 Dr. Veldman fully took over responsibility for this course. This course is offered every fall semester (taught 7 times to date) and regularly enrolls 5-10 graduate students.

- b) ESSM 681 - Departmental Seminar (1 credit hour)

I organized the Spring 2007 and Fall 2011 departmental seminar series. In 2007 I invited and hosted 11 highly acclaimed speakers for weekly presentations in the seminar series entitled "Ecological Innovation: Using Contemporary Tools and Strategies to Resolve Pressing Environmental Issues." In 2011 I invited and hosted 12 highly acclaimed speakers for weekly presentations in the seminar series entitled "Current Perspectives in Ecology - using science to addresses environmental issues in a changing world." I advised enrolled graduate students on developing organizational and leadership skills, professional networking strategies, critical thinking proficiencies, and interactive discussion methodologies. I am regularly an active member of all of our departmental seminar series and frequently invite and host speakers.

- c) ESSM 685 - Directed Studies (1-3 credit hours)

Independent literature surveys and research on emerging issues (similar to ESSM 485 above).

- d) ESSM 691 - Graduate Research Credit

Currently advising research projects for one Ph.D. and two M.S. graduate students.

e) EEBL 602 – Population Ecology (Invasion & Restoration Emphasis, 1 credit hour)

Beginning in Fall 2017, I began contributing to the Population Ecology component of the Core Curriculum Sequence for the TAMU Ecology & Evolutionary Biology doctoral program. This course examines the fundamental concepts in population ecology dynamics with a primary emphasis on birth, death, immigration, emigration, invasion and extinction processes and how these are affected by internal and external factors and the ways they affect population abundances. I am scheduled to deliver these lectures annually every fall semester.

5.6 TAMU University Guest Lectures

- a) RLEM 314 (Spring 2006-2010) - Introduction to concepts in ecological restoration
- b) REN205 (Spring 2006) - Four lectures on Patterns of Biodiversity, Extinction & Conservation
- c) RLEM 481 (Spring 2006) - Invited expert for facilitating biodiversity discussion group
- d) FRSC 620 (Spring 2007) - Contemporary issues on invasive tree species
- e) RLEM 103 (Spring and Fall 2008-2010) – Managing species invasions
- f) ESSM 316 (Spring 2012) – Field trip assistance and lectures at Greens Bayou
- g) ESSM 485 (Fall 2014) – Senior Honors Seminar Roundtable – Resprouting woody plant management and complex issues associated with ecological restoration efforts
- h) ESSM 600 (Fall 2015) - Principles of Ecosystem Science and Management associated with Ecological Restoration
- i) EEBL 610 (Fall 2015-2019) First year graduate seminar talk on publishing and peer review
- j) ESSM 281 (Fall 2018) Discuss ecological research processes with ESSM honors students

5.7 Rice University Course Descriptions

a) BIOS 202 - Introductory Biology (3 credit hours)

Half-semester section of Introductory Biology covering general principles of ecology,

evolution and systematic biology. This was one of the first courses at Rice University to post primary lectures and supplemental material on a dedicated website for student access. In addition to the lecture component, this course initiated a collaborative effort with the Cain Writing Project, an endowed campus organization dedicated to integrating writing across the curriculum. Students were required to research the primary scientific literature for topics related to lecture material and critique, summarize, and synthesize the findings of several journal articles. This course was taught in Spring 2000 and 2001 to >100 students per semester.

b) BIOS 310 - Independent Study for Undergraduates (variable credit hours)

Acted as co-advisor for 45 undergraduate student research assistants from Fall 1999-Spring 2005. Several of these students pursued independent projects that resulted in honors theses, meeting presentations, departmental awards, and 7 of these undergraduate students have authored/co-authored peer-reviewed scientific publications from their research efforts. These students represented a diverse group including 3 African American, 6 Asian American, 4 Indo-American, and 21 women. Eleven of these students have sought/are seeking advanced degrees.

c) BIOS 316 - Lab Module in Ecology (1 credit hour)

Served as primary instructor in Fall 2000 and co-instructor during Fall 2001 and 2002, this field-based methods course sought to expose students to current ecological issues and the techniques necessary for conducting research studies. Students attended field trips to forest, prairie and barrier island habitats, assisted with data collection for a variety of field studies, analyzed results using appropriate statistical techniques, and composed lab reports in the form of scientific manuscripts. Students were also responsible for conducting an independent field study, orally presenting the results and preparing a formal report of the findings. Approximately 10 students enrolled per class.

d) BIOS 325 - Ecology (3 credit hours)

Introduction to the principles of ecology with an emphasis on interactions between multiple hierarchical levels of biological organization (organisms, populations, communities, and ecosystems) and the physical environment. Similar to Bios202, multi-media innovations and writing techniques were employed. Taught in Spring 2003 with approximately 40 students enrolled.

e) BIOS 563 - Topics in Ecology (1 credit hour)

Co-taught a weekly readings based discussion group from 1999-2004 covering classic and contemporary publications from the primary ecological literature. Offered Fall semesters to both graduate and undergraduate students with approximately 10 students per semester.

f) BIOS 568 - Topics in Biodiversity (1 credit hour)

Co-taught a weekly readings based discussion group from 2000-2005 covering the primary ecological literature with an emphasis on biological diversity. Offered Spring semesters to both graduate and undergraduate students with approximately 10 students per semester.

g) BIOS 591 - Graduate Teaching (3 credit hours)

Co-advised graduate student teaching assistants for introductory biology, general ecology and field ecology courses from 2000-2003.

5.8 Graduate Student Program

a) Graduate Student Advising – Total students advised as Chair = 32; Committee member = 43

Summary of Graduate Student Advising				
Degree	Currently Active		Completed Degrees	
	Chair/Co-chair	Committee Member	Chair/Co-chair	Committee Member
Ph.D.	0	3	5	11
M.S.	3	1	10	22
MNRD / non-thesis	9	1	5	5

b) Graduate Committee Chair or Co-Chair

i) *Ph.D. Students – Currently Active (0)*

n/a

ii) *Masters of Science Students (thesis) - Currently Active (3)*

Virginia Preiss 2019-present. Research Proposal “Shifting savanna stability: assessing semi-arid grassland dynamics via experimental manipulations of precipitation, soil fertility, fire disturbance, and non-native herbivore impacts.” TAMU Varsity Athletics Scholarship, TAMU SLTERI Drought-NET, ESSM Teaching Assistantship and USDA-JFSP award.

Jacqueline Lara 2018-present. Research Proposal “Legacy effects of extreme prescribed fire on prickly pear cactus density and herbivory in a semi-arid Texas savanna ecosystem.” US Military GI Bill Support, USDA-JFSP award and ESSM Teaching Assistantship.

David Rowley 2021-present. Research Proposal – tbd. USDA-ARS, Temple, TX.

iii) Masters of Science or Natural Resource Development (non-thesis) – Currently Active (9)

April Labrecque 2019-present. MNRD-on campus, professional paper “Effects of summer drought and seed distance from parent plant on population dynamics of the federally endangered terrestrial orchid, *Spiranthes parksii* Correll.” ESSM Teaching Assistantship and BSWMA research grant funding.

Michael Jarret 2019-present. MNRD-on campus, professional paper “An ecological history and current ecosystem impacts of recently introduced Axis Deer (*Axis axis*) into central Texas.”

Collin Knight 2019-present. MNRD- on campus, professional paper “Texas Blackland Prairies: an unappreciated and under-threat temperate grassland ecosystem.”

Wendy Wright 2019-present, Texas A&M University, EECB MS no-thesis student, co-advised with Dr. Carol Loopstra.

Kayla Driver 2020-present. EECB MS non-thesis, on campus, professional paper (TBD)

Jake Hafermalz 2020-present. EECB MS non-thesis, on campus, professional paper (TBD)

Vitaly Vogelman 2020-present. EECB MS non-thesis, on campus, professional paper (TBD)

Michael Behrendt 2020-present. EECB MS non-thesis, on campus, professional paper (TBD)

Natalie Jennings 2021-present. EECB MS non-thesis, on campus, professional paper (TBD)

iv) Ph.D Students – Completed Degrees (5)

Gabriela Sosa 2009-2019, Texas A&M University ESSM PhD candidate/ Texas A&M Diversity & Sloan Foundation Fellow/USFS Chief’s Scholar. Dissertation 2019 “Prescribed fire as the catalyst to control Prickly Pear cactus encroachment and restore the ecological integrity of Texas rangelands.”

Martha C. Ariza 2009-2013, Texas A&M University, ESSM TAMU Diversity & Sloan Foundation Fellow, Dissertation 2013 “Mycorrhizal associations, life history and habitat characteristics of the endangered terrestrial orchid *Spiranthes parksii* correll and sympatric congener *Spiranthes cernua*: implications for conservation.”

Carissa L. Wonkka 2010-2014, Texas A&M University, ESSM USDA National Needs Fellow/Tom

Slick Fellow, Dissertation 2014 “Influence of disturbance, soils, and socio-economic constraints on restoration in brush-encroached, semi-arid Texas rangelands.” Co-advised with Dr. Urs Kreuter.

Dirac Twidwell 2006-2011, Texas A&M University, ESSM Welder Wildlife Fellow/Tom Slick Fellow, Dissertation 2011 “From theory to application: extreme fire, resilience, restoration, and education in social-ecological disciplines.”

Somereet Nijjer 2002-2006, Rice University, EEB Wray-Todd Fellow, Dissertation 2006 “Understanding belowground community regulation in an invaded forest.” Co-advised with Dr. Evan Siemann

v) *Masters of Science Students – Completed Degrees* (10)

Lela Culpepper 2018-2020. Texas A&M University ESSM, TAMU Diversity Fellowship and ESSM Teaching Assistantship. MS Thesis 2020 “Soil physiochemical and microbial responses to high-energy fires in a semi-arid savanna.”

Quinn Hiers 2017-2019. Texas A&M University ESSM, Texas A&M Sid-Kyle Fellowship. MS Thesis 2019 “Belowground bud bank dynamics of grasses following extreme fire and drought.” Co-advised with Dr. Morgan Russell-Treadwell

Heather Hannusch 2017-2019. Texas A&M University ESSM, Texas A&M Sid-Kyle Fellowship. MS Thesis 2019 “Interactive effects of fire, drought, and soil fertility on herbaceous communities in a semi-arid savanna system.”

Amber Williams 2014-2016 Texas A&M University ESSM MS 2016 professional paper "Plant parameters for plant functional groups of representative wetlands to enable process-based simulation modeling."

Michele Clark 2012-2014 Texas A&M ESSM, Texas A&M Diversity Excellence Fellow/Welder Wildlife Fellow MS thesis 2014 “Interactive effects of prescribed fire and grazing on invasive grass abundance and woody brush encroachment in a south Texas coastal prairie.” Co-advised with Dr. Urs Kreuter.

Nicole Ortiz 2012-2014 Texas A&M University ESSM, Texas A&M Diversity Excellence Fellow. MS 2014 professional paper “A description and overview of the federally endangered Sacramento prickly poppy (*Argemone pinnatisecta*) in the Lincoln National Forest, New Mexico.”

Richard Bruton 2011-2014 Texas A&M University, ESSM MS 2014 “The effects of woody plant management on habitat conditions, plant demography, and transplantation success of the endangered orchid *Spiranthes parksii* Correll.” Co-advised with Dr. Fred Smeins.

Joshua McGinty 2010-2012 Texas A&M University ESSM MS thesis 2012 “Effect of rate and season of application of aminocyclopyrachlor on the control of *Acacia farnesiana* in South Texas” Co-advised with Dr. Fred Smeins.

Carissa L. Wonkka 2008-2010, Texas A&M University ESSM, Texas A&M Merit Fellow, MS thesis 2010 “Large herbivore impacts on demographic characteristics and population dynamics of an endangered orchid (*Spiranthes parksii* Correll).”

Gabriela Sosa 2007-2009, Texas A&M University ESSM, Texas A&M Diversity & Sloan Foundation Fellow, MS thesis 2009 “Restoring a degraded rangeland: using fire and herbivory to control *Opuntia* cacti encroachment.”

vi) *Masters of Natural Resource Development (non-thesis) – Completed Degrees (5)*

Geoffrey Tarbox 2013-2016 Texas A&M University ESSM MNRD 2016 professional paper “Whooping crane (*Grus americana*) eastern migratory population: history, successes and challenges.”

Tyler Adams 2013-2016 Texas A&M University ESSM MNRD professional paper 2015 “Feral Hogs in the United States: Impacts of *Sus Scrofa* on the environment, industry, and American culture.”

Cameron Brademan 2012-2013 Texas A&M University ESSM MNRD professional paper 2013 “Habitat suitability mapping of Chinese tallow (*Triadica sebifera*) using maximum entropy.” Co-advised with Dr. Robert Washington-Allen.

W. Tyler Jones 2009-2012 Texas A&M University ESSM MNRD professional paper 2012 “Issues in urban wildlife management: feral pigeons in downtown Houston, Texas.”

Chaylum Hogue 2017-2020. MNRD-distance, professional paper “Invasion of the emerald ash borer: an observation of disease upon the United States ash tree population.”

c) Graduate Committee Member

i) *Ph.D. Students – Currently Active (3)*

Yasmín Odette Nelisa Quintana Morales 2018-present, Texas A&M University, WFSC PhD student, dissertation topic “Effect of the invasive armored catfish (*Siluriformes loricariidae*) on fish assemblages and ecosystem functioning of tropical lotic and lentic in north Guatemala.” Dr. Kirk Winemiller, major advisor

Milton Torres Ceron 2020-present, Texas A&M University, EEBL PhD student, Preliminary Exam Committee Member. Major advisor, Masami Fujiwara.

Jun Choi 2021-present Texas A&M University, ECCB PhD student, dissertation topic – tbd. Major Advisor, Jian-Bang Gan.

ii) Masters Students- Currently Active (1)

Ashley Cross 2019-present. Texas A&M University, ESSM MS student, Dr. Georgianne Moore, major advisor.

iii) Masters of Natural Resource Development/Non-thesis MS Students - Currently Active (1)

Kreiner, Holly 2021-present, Texas A&M University, ECCB MS student – distance, Dr. Urs Kreuter, major advisor.

iv) Ph.D. Students – Completed Degrees (11)

Hosia Turupa Pule 2020-2021, University of KwaZulu-Natal, College of Agriculture, Engineering & Science PhD Student, External Dissertation Examiner for ““The causes and consequences of *Seriphium plumosum* L. encroachment in South African semi-arid grassland communities.” Major Advisor, Michelle Tedder.

Zach Hurst 2011-2019, Texas A&M University, ESSM PhD Dissertation, “Social considerations for the maintenance of ecosystem services in the Texas Gulf Coast prairie.” Dr. Urs Kreuter, major advisor.

Chris Labosier 2010-2014, Texas A&M University, GEOG PhD Dissertation 2014, “Pyrogeography of the southeast USA: exploring the relationships between wildfire and climate.” Dr. Steve Quiring, major advisor.

Ashley Long 2011-2014 Texas A&M University, WFSC PhD Dissertation 2014, “The influence of tree species composition on songbird abundance and productivity.” Dr. Mike Morrison, major advisor.

Paul A. Lenhart 2009-2014, Texas A&M University, ENTO PhD Dissertation 2014 “Nutrient niches: an investigation of nutritional ecology in a generalist herbivore community.” Drs. Spencer Behmer & Micky Eubanks, major advisors.

David Toledo 2008-2013, Texas A&M University, ESSM PhD Dissertation 2013 “Socio-ecological factors influencing the use of fire to maintain and restore ecosystem health.” Dr. Urs Kreuter, major advisor.

Daniel J. Leavitt 2008-2012, Texas A&M University, WFSC PhD Dissertation 2012 “Fragmentation, habitat associations, and conservation of the lizard community in the Mescalero-Monahans shinnery sands.” Dr. Lee Fitzgerald, major advisor.

Theresa L. Pope 2008-2011, Texas A&M University, WFSC PhD Dissertation 2011 “Effects of habitat, nest-site selection, and adult behavior on Black-Capped Vireo nest and fledgling survival.” Dr. Mike Morrison, major advisor.

Emily Marquardt, 2003-2009, University of Houston, BIOL, PhD Dissertation 2009 “Foraging and host use of the parasitic plant *Cuscuta indecora*.” Steve Pennings, major advisor.

Jianwen Zou, 2003-2005, Rice University, EEB, PhD Dissertation 2007 “Increased competitive ability and herbivory tolerance of the invasive plant *Sapium sebiferum*.” Evan Siemann, major advisor. *did not serve on final committee

Maria K. Hartley 2000-2006, Rice University, EEB, Wray-Todd Fellow, PhD Dissertation 2006 “Impact of disturbance on arthropod community structure: nutrient enrichment, fire and the invasive Chinese Tallow Tree (*Sapium sebiferum*).” Evan Siemann, major advisor.

v) *Masters Students – Completed Degrees (22)*

Matthew Peterson 2019-2021. Texas A&M University, SCSC MS 2021, “The response of soil microbial communities to the interactive effects of drought and fire in a semi-arid savanna.” Dr. A. Peyton Smith, major advisor.

Erin Novak 2018-2020. Texas A&M University, ESSM MS 2020, “Season of prescribed fire determines grassland restoration outcomes after fire exclusion and overgrazing.” Dr. Joseph Veldman, major advisor.

Shannon Skaalure 2016-2019. Texas A&M University, ESSM MS 2019, “Demographics, growth, and survivorship of *Spiranthes parksii* (Correll) and *Spiranthes cernua* (L., Rich) influenced by vertebrate and invertebrate herbivory and supplemental water during summer dormancy.” Dr. Fred Smeins, major advisor.

Jasmin Diaz-Lopez 2018-2019. Texas A&M University, WFSC MS 2019 “Common inaccuracies in fertility parameters of matrix population models and suggestions for corrections.” Dr. Masami Fujiwara, major advisor.

Paul Mullen 2016-2017, Texas A&M University at Galveston, Marine Sciences Department TAMU-G MS 2017, “The effectiveness of a sand seaweed separator when removing Sargassum from the beach.” Dr. Tom Linton, major advisor.

Chase Brooke 2015-2017, Texas A&M University, ESSM MS 2017, “Identifying the environmental

controls on wildland fire in the south-central United States.” Dr. Michelle Lawing, major advisor.

Deseri Nally 2013-2016, Texas A&M University, ESSM MS 2016 “Growth, development, and vertebrate and invertebrate herbivory of the federally endangered *Spiranthes parksii* Correll and sympatric congener *Spiranthes cernua*.” Dr. Fred Smeins, major advisor.

Scott McConaghy 2014-2016, Texas A&M University, GEOG MS 2016 “Influence of productivity and disturbance on plant species diversity across the grasslands of the Great Plains.” Dr. Charles Lafon, major advisor.

Jarom Randall 2012-2015, Texas A&M University, GEOG MS student, “Remote-Sensing Detection of Invasive Chinese Tallow (*Triadica sebifera*) in a Floodplain Environment.” Dr. Anthony Filippi, major advisor.

Dale Kruse 2005-2015, Texas A&M University, ESSM MS2015, “Floristics and Biogeography of the Bryophyte Flora in the Big Thicket National Preserve, Southeast Texas.” Dr. Steve Hatch, major advisor.

Jonathan King 2008-2015, Texas A&M University, ENTO MS 2015, “Beetle biodiversity response to vegetation restoration of mid-valley flood forests in the lower Rio Grande Valley of southern Texas.” Dr. Jon Oswald, major advisor.

Michaela Murphy 2012-2014, Texas A&M University, WFSC MS 2014, “A national assessment of the infrastructure for urban wildlife management.” Dr. Clark Adams, major advisor.

Michael Neisch 2011-2013, Texas A&M University, WFSC MS 2013 “A study on biological threats to Texas freshwater resources.” Dr. Daniel Roelke, major advisor

Melissa A. Lackey 2008-2010, Texas A&M University, WFSC MS 2010 “Avian response to road construction noise with emphasis on the endangered golden-cheeked warbler.” Dr. Mike Morrison, major advisor.

Tara J. Conkling 2008-2010, Texas A&M University, WFSC MS 2010 “An analysis of the black-capped vireo predator assemblage.” Dr. Mike Morrison, major advisor

Christopher M. Lituma 2006-2009, Texas A&M University, WFSC MS 2009 “Effects of grassland restoration on avian assemblage characteristics and dickcissel nesting success in Texas.” Dr. Mike Morrison, major advisor.

Trevor Knight 2005-2009, Texas A&M University, WFSC MS 2009 “Impacts of aquatic vegetation management on the ecology of small impoundments.” Dr. Michael Masser, major advisor.

J. Ryan Hammons 2006-2008, Texas A&M University, ESSM MS 2008 “Demographics, life cycle,

habitat characterization and transplant methods for the endangered orchid, *Spiranthes parksii* Correll.” Dr. Fred Smeins, major advisor.

Nicole L. Smolensky 2008 (thesis reader), Texas A&M University, WFSC MS 2008 “Is distance sampling appropriate for estimating population densities of dune-dwelling lizards?” Dr. Lee Fitzgerald, major advisor.

Shannon L. Farrell WFSC 2005-2007, Texas A&M University, MS thesis 2007 “Brown-headed cowbird parasitism on endangered species: relationships with neighboring avian species.” Dr. Mike Morrison, major advisor.

Candice L. Donahue 2002-2004, Rice University, EEB, MS thesis 2004 “Restoring a prairie: testing effectiveness of Chinese Tallow (*Sapium sebiferum*) mulch to reduce seedling emergence.” Dr. Evan Siemann, major advisor

Maria K. Hartley 2000-2002, Rice University, EEB, MS 2002 “Impact of disturbance on arthropod community structure: nutrient enrichment, fire and the invasive Chinese Tallow Tree (*Sapium sebiferum*).” Dr. Evan Siemann, major advisor.

vi) Masters of Natural Resource Development/Non-thesis MS - Completed Degree (5)

Rebecca Healy 2018-2019, Texas A&M University, ESSM MNRD-distance Professional paper 2019 “Impact of noxious and invasive weeds on watersheds.” Dr. Robert Knight, major advisor.

Christina Lee 2016-2018, Texas A&M, WFSC MS non-thesis distance, Professional paper 2018 “Resource management at the Attwater Prairie Chicken National Wildlife Refuge.” Dr. Nova Silvy, major advisor.

Rande Patterson 2014-2016, Texas A&M University, ENTO MS-non thesis student, Dr. Micky Eubanks, major advisor.

Austin Richards 2011-2013, Texas A&M University, ESSM MNRD Professional paper 2013 “Demographic variation and evaluation of biotic and abiotic drivers of the habitat distribution using spatial autocorrelation for the endangered orchid, *Spiranthes parksii*.” Dr. Fred Smeins, major advisor.

Melinda Barnes 2011-2012, Texas A&M University, ESSM MNRD Professional paper 2012 “Soil Total phosphorus levels in response to timber harvest practices of *Pinus taeda* in the Western Gulf Coast Plain.” Dr. Tom Boutton, major advisor.

5.9 Undergraduate Research Program

a) Undergraduate Research Experience Opportunities & Awards

- i) Acted as co-advisor for 45 undergraduate student research assistants from Fall 1999-Spring 2005 while at Rice University. Many of these students presented their findings at professional meetings and co-authored peer-reviewed publications based on their contributions. Several of them are now in academic or other scientifically-related professional positions.
- ii) Acted as advisor/supervisor for over 70 undergraduate student research assistants at Texas A&M University from June 2006-present including: Chase Lenz, Nick Randall, Evan Kruse, Lee Harughty, Paul Cozzolino, Danya Lewis, Heath Starns, Clint Mabry, Jordan Ely, Renae Ross, Joshua Grace, Katie Caldwell-Hurst, Laura Kristen Nelson, Diana Mato, David Boatright, Erin Earlywine, John Beasley, Kelly Hoffman, Mia McCraw, John Rocconi, Jay Woolmington, Becky Vielma, Randall Ross, Bryce Thomas, Jason Price, Richard Burton, Elizabeth McMahan, Jacqueline Thibodaux, Sarah Turner, Alfredo Delgado, Jordy Herrin, Jack Turney, Natalie Pickett, Jennifer Meza, Austin Richards, Deseri Nally, Charles Winfield, Joe Aquilar, Karl Flocke, Kara Thompson, Bryan Tarbox, Brett Ham, Emily Jackson, Kyle Landolt, Antonio Guajardo, Jean Devlin, Nicole Ortiz, Laura Stapper, Kelsey Davis, Amy Gondran, Patrick Haley, Blake Chatham, Ingrid Karklins, Eric Nystrom, Evan Dulin, Candace Green, Charlie Triplett, Chelsea Blakely, Maggie Wann, Will Anderson, Michael Bartmess, John Adams, David Denton, Manuel Flores, Joe McDonald, Miranda Peterson, Samantha Heldman, Lela Culpepper, Ben O'Connor, Charlie Fortenberry, April Labrecque, Chris Ferguson, Adam Thane, Wesley Tanton, Vitaly Vogelmann & Dayziah Petruska. Many of these students are now seeking advanced degrees or are gainfully employed in professional positions. See Section 6.3m for a more detailed description of the mentoring activities associated with training these students.

5.10 Teaching Improvement Activities

a) Activities at Texas A&M University

- i) Participated in Center for Teaching Excellence Workshop - Designing Courses for Significant Learning, Four 3-hr sessions over a 4 week period (July 6, 13, 20, & 27, 2006). Working with Dr. Georgianne Moore, we utilized this opportunity to develop our ESSM 430 writing-intensive, capstone course on Advance Restoration Ecology.
- ii) Participated in Center for Teaching Excellence Workshop-Teaching Portfolio, November 2006.
- iii) Actively participated in departmental efforts to revamp curriculum design and establish Course Learning Outcomes and Project Learning Outcomes.
- iv) Contributed to successful departmental efforts to establish a new undergraduate bachelor's degree in Ecological Restoration and tasks associated with new curriculum development.

- v) Restructured RLEM 320 to accentuate the complementary efforts of the practice of ecological restoration and the basic scientific pursuit of Restoration Ecology. Considerable emphasis is placed on studies published in the primary scientific literature and their relevance to applied restoration efforts. Restructured again in 2013 to make a 3-credit course and added group student presentations to the classroom activities.
- vi) Redesigned RLEM 321 to incorporate field experiences in a variety of Texas ecosystems that emphasize both basic scientific studies and applied restoration management activities.
- vii) Developed ESSM 416/626 as a stacked graduate and undergraduate course with writing and oral presentation requirements and incorporated a greater emphasis on fire ecology. An undergraduate honors component was added in fall 2013.

b) Activities at Rice University

- i) Recognized for classroom innovation utilizing technology to enhance student learning.
- ii) Recognized for promoting ‘writing-across-the-curriculum’ efforts in an introductory science course.
- iii) Designed field-based methods course that exposed students to current ecological issues and the techniques necessary for conducting research studies by designing laboratory exercises that required participation in on-going, scientific studies.

6. RESEARCH PROGRAM

6.1 Research Expectations: Establish and conduct research in plant ecology, invasive species biology and ecological restoration that is funded by contracts and grants, results in presentations at conferences and professional societies and publications in quality journals. The development of a strong graduate program is required.

6.2 Research Interests

- Exotic plant invasions and post-introduction evolution
- Conservation of rare and endemic plant species
- Plant-animal interactions and herbivory
- Mutualisms, symbioses, and positive and negative feedbacks
- Population dynamics and community structure of terrestrial ecosystems
- Demographic processes and species diversity in plant communities
- Natural disturbance and vegetation regeneration mechanisms

- Ecological assembly rules
- Autogenic restoration and rehabilitation of damaged ecosystems
- Social-ecological resilience and threshold transitions in managed ecosystems

6.3 Primary Research Projects

Primary research projects are focused in ten main areas highlighted below (plus an eleventh item that emphasizes undergraduate research training). In general, these projects can be classified as quantitative, experimental investigations of plant population dynamics, plant-animal interactions, and community responses to biotic and abiotic environmental conditions. All of this research seeks to reveal fundamental biological mechanisms regulating ecosystems while providing valuable information that will assist land managers and stakeholders in improving the ecological integrity of the landscape through the use of scientific insights that assist with conservation and restoration efforts.

a) Cause and consequences of Chinese tallow tree invasions: insights into ecological and evolutionary processes - These ongoing studies are examining the causes and consequences of non-native Chinese tallow tree (*Triadica sebifera*) invasions in a variety of habitats throughout the southeastern United States. Utilizing a large number of experimental studies, we have attempted to understand how local environmental factors (e.g., herbivores, fungal pathogens, resources, mycorrhizal symbionts, disturbance regime, and recruitment limitation) interact with post invasion evolutionary adaptations to determine the mechanisms responsible for tallow invasions of forests and grasslands. We have also compared the invasive genotype of the tree to the native genotype in both the introduced North American range and the native in China. These efforts are the continuation of my long-term collaboration with colleagues at Rice University and other academic, state and federal agencies. Additionally, we are assessing a variety of control and restoration methods for mitigating the negative effects of this aggressive invader. Completed studies from these past efforts have resulted in over 40 peer-reviewed publications. Several of these are recently published and 8-10 additional publications in high quality peer-reviewed journals are likely forthcoming from previous and on-going efforts. My collaborators on this work include Dr. Evan Siemann at Rice University, Dr. Saara J. DeWalt at Clemson University, Dr. Jianwen Zou at Nanjing Agricultural University, Dr. Maria Hartley at Chevron Energy and a variety of graduate students at academic institutions and staff members in government agencies. Separately, I have been collaborating with Drs. William Grant (WFSC) and Hsiao-Hsuan “Rose” Wang (ESSM/WFSC) to examine Chinese tallow invasions using spatially-explicit model simulations that integrate statistical, theoretical/analytical, empirical, and economic approaches. We are currently applying these methods to assess the effects of other invasive plant species affecting southern forest ecosystems. To date we have published three peer-reviewed papers together, have one in review, and we intend to continue working together on additional publications and future grant submissions. Finally, I am collaborating with my colleague, Dr. Robert Washington-Allen, investigating the effects of Chinese tallow invasions and potential mitigation efforts in the Greens Bayou area of Houston. While this funded contract ended it provided salary and research expenses for several graduate and undergraduate students, resulted in numerous scientific presentations, and publications should

eventually be develop from these collaborative efforts.

b) Strategies for propagation of the federally endangered orchid, Navasota ladies tresses' (*Spiranthes parksii*) – In November 2012, I received a grant award for \$215,570 from the competitive Endangered Species Conservation Grant Program sponsored by the Lady Bird Johnson Wildflower Center entitled “Assessing Potential Conservation Corridors for the Endangered Orchid, *Spiranthes parksii* (Navasota Ladies’-Tresses): Using Predictive Habitat Models and Genetic Analyses to Develop a Strategic Management Plan.” Dr. Fred Smeins serves as a co-Principal Investigator in this effort and Drs. Bill Grant and Rose Wang from WFSC are collaborators. Our studies on this endangered orchid also continue to be funded by the Brazos Valley Solid Waste Management Agency (\$384,262 in 2006-2011 and supplemental funding of \$104,139 for 2011-2015) for the purpose of obtaining a biological opinion from the US Fish and Wildlife Service in order to construct a new landfill for Brazos County. Our research team originally initiated a series of funded studies to examine the biotic and abiotic factors that influence the population density and distribution of endangered NLT orchids. These studies are examining numerous variables in factorial experiments including manipulations of woody encroachment and light availability, nitrogen and phosphorus resource additions, soil disturbances, cattle grazing, deer browsing, prescribed fire, and seed recruitment limitation. We are also developing methods for in-vitro germination of NLT seeds and transplanting intact rhizomes as a means of propagating individuals in protected areas. Finally, we have initiated a large number of studies focused on plant-soil interactions, mycorrhizal associations, feedback loops, and ecosystem processes. These latter studies involve interdisciplinary collaborations with faculty and students in other departments (e.g., Plant Pathology and Microbiology, Soil and Crop Sciences, Horticulture, Entomology, Wildlife and Fisheries Sciences, and Geography) and at other universities (e.g., Rice University, Illinois College) and will uniquely position our team to compete for additional external resources and funds in an emerging area of scientific investigation. We are also working with staff from the environmental consulting firm HDR, Inc. To date these efforts have produced three MS degrees, one PhD, and several undergraduate research experiences. To date we have three peer-reviewed publications from these studies and we should have another 6-8 papers in conservation and restoration ecology journals in the future. We have also contributed numerous presentations at scientific meetings addressing results from these studies. I continue to actively seek additional funds for future mitigation/restoration efforts with this species.

c) Prescribed extreme fire and herbicide applications to restore mesquite invaded rangelands throughout Texas - This integrative project was funded by NRCS-EQIP and the on-going research is examining the ecological, modeling, economic and human dimensions of prescribed extreme fire. Although the primary funding for this effort has ended these research studies are on-going and several publications from the initial effort are recently published or in late stages of preparation. I was the lead investigator on the ecological studies where we utilized a factorial series of hot summer prescribed fires and herbicide applications to reduce woody encroachment and promote herbaceous vegetation in three far-ranging regions of Texas. Study sites include: Welder Wildlife Refuge in southeast Texas, Sonora AgriLife Research Station on the Edwards Plateau, and Harris Ranch in North-central Texas. Collaborators for these studies included Dr. Butch Taylor, Dr. Richard Teague, Dr. Richard Conner and Dr. Urs Kreuter. My former Ph.D graduate student, Dirac Twidwell, is

currently an Assistant Professor at the University of Nebraska, Lincoln. He continues to publish several high-impact papers from these efforts. To date, he has produced six peer-reviewed publications from these efforts and several additional manuscripts are in various stages of review, revision and preparation. Other graduate students, including David Toledo (I was a committee member, Dr. Urs Kreuter was his major advisor), are also producing valuable contributions from this collaborative effort. Moreover, using our findings, we are engaged in outreach activities with stakeholders and land managers attempting to devise habitat restoration strategies and practical applications using our studies.

d) Innovative approaches to controlling *Opuntia* cactus in Texas rangelands - This research involves a series of complementary studies assessing the effects of prescribed fire, herbicide applications, wildlife herbivory, and drought conditions on the survival and spread of prickly pear cactus populations. These studies are established at the Texas A&M AgriLife Research Stations at Sonora and Barnhart and were funded by an NRCS-CIG award for which I was the principal investigator. My graduate student, Gabriela Sosa, has been primarily responsible for the field research in these studies. Gabriela defended her Master's thesis during fall 2009 was supported by a TAMU Diversity Fellowship for her Ph.D which began in 2009. She has completed all of her data collections and is in the process of finalizing her data analysis and writing her dissertation chapters. She hopes to defend her dissertation and receive her doctoral degree in 2017. She was employed part-time by the US Forest Service and may transition to full-time position and be based in Washington, D.C. following completion of her degree. These studies will result in 3-5 peer-reviewed publications and outreach to stakeholders and land managers attempting to devise habitat restoration strategies for problematic succulent invaders that degrade rangeland ecosystems goods and services.

e) Effects of fire and woody plant control on distributed recharge of the Carrizo-Wilcox aquifer – This experimental research study is financially supported by the Wintergarden Groundwater Conservation District. Supplemental funding of \$101,485 was received in fall 2012 to augment the original funding of \$209,407 for a project entitled “Effects of Mechanical Brush Removal and Fire on Plant Community Dynamics and Distributed Recharge of the Carrizo-Wilcox aquifer” that began in 2010. In collaboration with Drs. Jason West (PI) and Robert Lyons, our research team is assessing different land management strategies, including fire and mechanical brush removal on soil water recharge and plant community dynamics. These studies are located a private ranch in south Texas. Former graduate students involved in this project included Carissa Wonkka (who defended her dissertation in fall 2014, this project constituted her primary doctoral research studies supported by the USDA-NNF in Forest Resources award), Dirac Twidwell, and several individuals principally advised by Dr. West, including April Mattox who recently defended her MS thesis.

f) Effects of DPX MAT 28 herbicide treatments on woody invaders, honey mesquite (*Prosopis glandulosa*) and Texas huisache (*Acacia smallii*) – These studies were initiated in summer 2010 and were financially supported by DuPont Corporation with an award of \$56,000. We developed an experimental study to assess the effectiveness and safety of a new herbicide that is not currently approved for commercial usage. Collaborators on this project include Drs. Fred Smeins, Wayne Hanselka and Bob Lyons. These studies constituted the research component of Joshua McGinty's

MS thesis which he successfully defended in 2012. Mr. McGinty is currently a doctoral student in the Department of Soils and Crop Sciences at TAMU and he is finalizing a manuscript from his MS research for submission to a peer-reviewed scientific journal.

g) Restoring ecosystem services and enhancing livelihoods on degraded rangelands in southern Africa through the development of appropriate livestock grazing systems – Initiated by a call for proposals through the Howard G. Buffett Foundation and Borlaug Institute for International Agriculture, my collaborators, Drs. Richard Teague, Urs Kreuter, and I developed an integrative effort to examine livestock grazing systems in Southern Africa across a variety of temporal and spatial scales and assess ecological, economic, and socio-political aspects of land management. Our proposal was selected for funding and we were originally allocated \$149,179 for 2012-2014. During 3-weeks of July 2012, six-student field assistants and I established two completely randomized, full-factorial experimental studies at Ukulima Farms assessing the effects of ungulate grazing (one area containing domesticated Bonsmara Cattle and another area containing native wildlife such as Zebra, Wildebeest, and Impala) and prescribed fire on Highveld grassland vegetation community composition and population dynamics of a problematic woody invader, *Seriphium plumosum* (Bankrupt Bush). We built enclosure fences, collected a full-suite of vegetation and soils data, and conducted prescribed burns during our stay in the Limpopo District of South Africa. Various administrative disputes (through no fault of the investigators associated with this award) led to the funding for this project being terminated in January 2013. As a result, approximately only \$74,000 of the allocated funding was utilized by our research team, the majority of which went to support my experimental field studies. Three members of our team (including myself) were able to return to South Africa to collect 6-month post-treatment data in December 2012-January 2013 and the results of our experimental treatments were encouraging. We returned in July 2014 to collect the final two-year post-treatment data. These findings have been presented at numerous scientific meetings by my former graduate student Michele Clark and comprised a chapter in her MS thesis which she defended in fall 2014.

h) Drought-induced woody plant mortality in an encroached semiarid savanna depends on topographic factors and land management: comparing the 1950s to the 2000s - This study was initiated by two of my doctoral students, Dirac Twidwell and Carissa Wonkka, at the Texas A&M AgriLife research station at Sonora. Although we did not have funding to directly support this effort, these enterprising young scholars sought out research plots in the area that were originally sampled in 1948 and maintained through the drought conditions of the 1950s Dust Bowl era and compared these published findings to new data examining the effects of the drought events in the 2000s. This effort has already resulted in a highly acclaimed oral presentation at the Society for Range Management annual meeting (best PhD oral presentation award), a peer-reviewed publication in Applied Vegetation Science, and a press-release announcing the findings in the AgriLife Today Bulletin. We resampled these plots during summer 2013 to add assessments of herbaceous vegetation, and will continue to monitor the effects of the ongoing drought conditions on vegetation. These follow-up data comprised a chapter of Carissa Wonkka's dissertation and the resulting manuscript from this effort is nearly ready to submit to a peer-reviewed journal. I am hopeful that the attention derived from this research effort will further add to the national prominence of my research program and also provide the necessary background information to solicit external research

funds to continue and expand these water-related studies.

i) Assessing the effects of fire and grazing on woody encroachment and rangeland sustainability – Seed grant funding of \$5000 was provided in 2012 by the Welder Wildlife Foundation to establish a replicated study examining the effects of prescribed fire and cattle grazing on woody encroachment, non-native grass dynamics, and plant community composition and productivity in a Gulf coastal tallgrass prairie ecosystem. These studies were implemented in spring 2013 and were primary research component of Michele Clark’s MS graduate thesis which she defended in fall 2014. A manuscript from this study is being prepared and additional funding to further examine the effects of these treatments on soil biogeochemistry is being solicited.

j) Conservation of the federally endangered Sacramento prickly poppy (*Argemone pinnatisecta*) in the Sacramento Mountains of New Mexico - This research is a collaborative effort with the US Forest Service at the Lincoln National Forest in New Mexico seeking to assess different habitat restoration strategies to improve conservation efforts for the endangered Sacramento prickly poppy (SPP). Presently, there is limited information regarding SPP habitat requirements and biology so our preliminary objectives are to better understand the natural history characteristics of the species including quantifying habitat and soil conditions where it persists, documenting population dynamics and plant demographic parameters, determining the effects of herbivory and other environmental factors on SPP growth and survival, and supplementing current SPP populations through successful transplantation using greenhouse grown plants. These efforts are the primary research component of Nicole Ortiz’s MS graduate studies. She spent the summers of 2012 and 2013 on-site in New Mexico and presented a professional paper from her efforts in 2014. We are hoping to publish a general overview paper describing the natural history and transplant success of this endangered species.

k) Pyrogenic controls on grass-shrub persistence in the Great Plains – Beginning in Fall 2017, I began acting as the lead principal investigator for a fully funded JFSP-USDA project assessing “Pyrogenic controls on grass-shrub persistence in the Great Plains.” Utilizing a number of experimental studies, this collaborative project will provide a mechanistic understanding of shrub and grass persistence to fire and drought in multiple Great Plains states (Nebraska and Texas) and develop new modules to advance current fire-effects models. We will quantify differences in the persistence of multiple species following fire at sites with a history of using high intensity prescribed burning to study mortality of resprouting and non-resprouting plants. Drawing from our past efforts, but employing novel technologies, we will quantify fine-scale spatial complexity in fire behavior and the amount of heat that individual plants experience to link exposure to persistence. We will identify the physiological mechanisms for resprouting. We will focus on the physiological mechanisms that govern persistence following fire for mature shrubs, which stakeholders have identified as a more pressing research need than studying seedling mortality. Our experimental design will provide a theoretical platform for modeling efforts and tests of competing hypotheses related to plant persistence following fire under different environmental conditions. Datasets and models from this project will be used to advance the development and validation of process-based fire effects models for grass-shrub ecosystems. Insights gained by quantifying how fire intensity and water limitation affect mortality thresholds in grass, resprouting shrub and non-resprouting shrub

species will address one of the greatest sources of uncertainty among stakeholders on the effects of fire in Great Plains ecosystems. Improved management will result from identifying the physiological mechanisms contributing to the persistence of different species under changing plant-water status and fire intensities. This project will assess, validate, and update both existing and candidate models important for fire effects prediction. These new modules will be used to better model shrub and grass response to fire. We have also partnered with USFS leadership to update fire effects information for multiple species within the Fire Effects Information System. This project is scheduled to continue until Fall 2020.

l) Drought-Net Coordinated Research Network Experiments - Despite not receiving funding from the National Science Foundation for a Southern Great Plains Savanna LTER site, I independently developed and submitted a proposal for funding from the ESSM-Sid Kyle Foundation Savanna Long-Term Research and Education Initiative (SLTREI) to pursue the small-scale manipulative experimental studies designed for the earlier and larger LTER effort. Specifically, these studies entail assessing the interactive effects of fire, nutrients, and precipitation manipulations in a formerly woody-encroached, arid savanna ecosystem. This proposal was partially funded at the level of \$180,000 for three years (plus in-kind salary, student, and infrastructure expense support). Beginning in Fall 2017 we designed a completely randomized, full-factorial experiment with 2 fire treatment x 2 nutrient addition treatment x 2 rainfall manipulation treatment plots. Each factorial treatment combination was replicated eight times for a total of 64 5x5m plots. All treatments were implemented by Fall 2017. The experiment will integrate with the international Drought-Net research networks and, thereby create explicit linkages with the original objectives of the savanna LTER site and be consistent with the goals of SLTREI.

m) Independent research opportunities for undergraduate students - Since 2006 I have trained 60 Texas A&M undergraduate students as field and laboratory assistants in my research program. All of these students have assisted me and my graduate students by engaging in a variety of plant ecology and ecological restoration studies in the field, greenhouse and laboratory. Many of these students participated in my lab as paid student workers. Others were enrolled in Undergraduate Internships (RLEM 484) or Directed Studies (RLEM 485) in order to obtain course credit for their research experiences. Still others simply volunteered their time in order to assist with research activities they found interesting. In general, their experiences included, but were not limited to, implementation of experimental designs, data collection, data management, literature research, and overseeing daily operations in the field, greenhouse and/or laboratory facility. Fourteen of these motivated undergraduates pursued or are pursuing independent research projects. To date, the efforts of these students have resulted in nine presentations at regional and national professional meetings with 10 undergraduate authors. We have also published two manuscripts stemming from these efforts in peer-reviewed journals that contain three TAMU undergraduate students as co-authors. Additionally, the model of training graduate and undergraduate students adopted by my research laboratory has been described in a poster presentation entitled "PhD-instructed undergraduate research: more than an undergraduate education and doctoral dissertation." and a manuscript (first authored by my former doctoral student) that is currently in review for the Education Commentary section of a leading scientific journal. This strong record of training undergraduates in research is a manifestation of my earlier involvement in undergraduate research experiences at Rice University

where I acted as the co-advisor for 45 undergraduate research assistants at Rice University which resulted in 10 undergraduate student authors on seven peer-reviewed publications and 13 undergraduate authors on 10 professional presentations (see below for detailed specifics of papers and presentations).

6.4 Acquisition of Research Funding

a) Total Research Funding

Total research funding exceeds \$15 million (since 2000) from 30+ awards and a variety of external competitive, internal competitive, and external contracts.

b) Current Research Funding

i) *External Competitive* (defined as programs soliciting a competitive call for proposals).

2019-2023 Co-Investigator (w/ B.P. Wilcox PI) *United States Department of Agriculture – NIFA-Sustainable Agricultural Systems Panel* “Enhancing Livestock Production from Rangelands in the Great Plains.” \$9,994,340.00

2017-2020 Principal Investigator (**William E. Rogers** w/ co-PIs Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Morgan L. Russell, Dirac Twidwell & Carissa L. Wonkka). USDA-Joint Fire Science Program. “Pyrogenic controls on grass-shrub persistence in the Great Plains.” \$366,511 fully funded (and \$189,124 contributed funding).

ii) *Internal Competitive*

2017-2020 Principal Investigator (**William E. Rogers**) *Texas A&M University/Sid-Kyle Endowment SLTREI* “Interactive effects of fire, soil fertility, seed recruitment limitation, simulated herbivory, and precipitation variability in a formerly woody-encroached, arid savanna ecosystem: mechanistic insights utilizing a variety of small-scale experimental manipulations” \$180,000.

iii) *External Contract*

2019-2021 Principal Investigator (**William E. Rogers** w/ Fred Smeins), *Brazos Valley Solid Waste Management Agency* “Conservation Strategies for the Protection and Propagation of the Federally Endangered Orchid, Navasota Ladies Tresses (*Spiranthes parksii*).” \$104,139 (contract renewed annually since 2013 with \$34,713 added per year).

c) Past Research Funding

i) *External Competitive* (defined as programs soliciting a competitive call for proposals).

- 2012-2016 Principal Investigator (**William E. Rogers** w/ Fred Smeins) *LBJWFC Endangered Species Grant Program* “Assessing Potential Conservation Corridors for the Endangered Orchid, *Spiranthes parksii* (Navasota Ladies’–Tresses): Using Predictive Habitat Models and Genetic Analyses to Develop a Strategic Management Plan.” \$215,570.
- 2010-2013 Co-PI (**William E. Rogers** w/ PI-Kostya Krutovsky and 10 other TAMU faculty) *United States Department of Agriculture- CSREES Food and Agricultural Sciences, National Needs Initiative*. “A Graduate Program in Forest Resources: Developing Integrated Expertise in Forest Resource, Management, Conservation, and Restoration.” \$234,000.
- 2003-2007 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* DEB-0315796, “Do genetic differences in growth and defense contribute to the success of an invasive plant species?” \$390,000
- 2003-2006 Co-PI (Evan Siemann & **William E. Rogers**), *United States Department of Agriculture - NRI / Biology of Weedy and Invasive Plants* “Does herbivory on an invasive tree species along a biogeographic gradient depend on time since introduction?” \$195,001.
- 2001-2005 Co-PI (Evan Siemann, **William E. Rogers** & Jim Grace), *Environmental Protection Agency, NCER-STAR* “Chinese Tallow invasions into the endangered coastal prairie.” \$381,687.
- 2000-2004 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* DEB-9981654, “Does lack of herbivory and disease explain the success of an alien plant species?” \$290,788.
- 2004 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* REU grant “Do genetic differences in growth and defense contribute to the success of an invasive plant species?” \$7,775.
- 2002 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* REU grant “Does lack of herbivory and disease explain the success of an alien plant.” \$6,000.
- 2001 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* REU grant “Does lack of herbivory and disease explain the success of an alien plant species.” \$6,000.

2000 Co-PI (Evan Siemann & **William E. Rogers**), *National Science Foundation* REU grant “Does lack of herbivory and disease explain the success of an alien plant species?” \$5,000.

ii) Internal Competitive

2015-2018 Co-investigator (**William E. Rogers** w/ Donald Brightsmith and 25 others) Texas A&M University Tier One Program (TOP) Reallocation Activity 2 “The Applied Biodiversity Science Program: Integrating Multidisciplinary Research and High Impact Learning into Undergraduate and Graduate Education.” \$300,000

2013-2016 Co-PI (**William E. Rogers** w/ Gil Rosenthal and 10 others) *Texas A&M University Reallocation Activity 2* “Tier One Program (TOP) interdisciplinary education grant in Ecology & Evolutionary Biology.” \$300,000 (\$10,000 allocated to my program).

2010-2013 Co-PI (**William E. Rogers** w/ PI-Kostya Krutovsky and 10 other TAMU faculty) *Texas A&M University College of Agriculture and Life Sciences and AgriLife Research*. Supplemental Matching Funds for USDA-NNF award “A Graduate Program in Forest Resources: Developing Integrated Expertise in Forest Resource, Management, Conservation, and Restoration.” \$78,000.

2012 Co-PI (**William E. Rogers** w/ Richard Teague and Urs Kreuter) *Howard G. Buffett Foundation-Borlaug Institute for International Agriculture /Texas A&M AgriLife Research* “Restoring Ecosystem Services and Enhancing Livelihoods on Degraded Rangelands in Southern Africa Through the Development of Appropriate Livestock Grazing Systems” \$74,122.

2010 Principal Investigator (**William E. Rogers**), *Texas AgriLife Research* – PUF allocation to purchase Microscopes, Laminar flow cabinet, and other laboratory equipment for development of a Mycorrhizae Research Laboratory and Endangered Orchid Cultivation Facility. \$23,520.

2007 Principal Investigator (**William E. Rogers**), *Texas Agricultural Experiment Station* - PUF allocation to purchase MiniTrase Soil Moisture TDR Unit and Decagon Sunfleck Ceptometer for Ecological Restoration Research Laboratory. \$11,249.

2004-2005 Principal Investigator (**William E. Rogers**, Evan Siemann & Dale Sawyer), *Shell Center for Sustainability* “Invasive species control in floodplain forests: seeking a economically viable means of conserving native biodiversity.” \$35,000.

iii) External Contracts

- 2015-2018 Co-PI (**William E. Rogers** w/ Fred Smeins), *Brazos Valley Solid Waste Management Agency* “Conservation Strategies for the Protection and Propagation of the Federally Endangered Orchid, Navasota Ladies Tresses (*Spiranthes parksii*).” \$120,000.
- 2011-2015 Co-PI (**William E. Rogers** w/ Fred Smeins), *Brazos Valley Solid Waste Management Agency* “Continuation of Interlocal Agreement Regarding Conservation Strategies for the Protection and Propagation of the Federally Endangered Orchid, Navasota Ladies Tresses (*Spiranthes parksii*).” \$138,852.
- 2013-2014 Co-Investigator (**William E. Rogers** w/ Jason B. West and Bob Lyons). *Wintergarden Groundwater Conservation District*, “Effects of Brush Removal on Distributed Recharge of the Carrizo-Wilcox Aquifer: Continuing Treatment Response Investigation.” \$101,485.
- 2013 Principal Investigator (**William E. Rogers** w/ Michele Clark), *Rob & Bessie Welder Wildlife Foundation*, “Assessing Fire and Grazing Effects on Woody Encroachment and Rangeland Sustainability.” \$5,000.
- 2011-2014 Co-Investigator (**William E. Rogers** w/ Robert Washington-Allen) *Harris County Flood Control District/Harris County Soil and Water Conservation District*, “Can Chinese Tallow Distribution Be Reduced to Certification Levels within Greens Bayou Wetlands Mitigation Bank?” \$120,000.
- 2010-2012 Co-Investigator (**William E. Rogers** w/ Jason B. West and Bob Lyons). *Wintergarden Groundwater Conservation District*, “Effects of Mechanical Brush Removal and Fire on Plant Community Dynamics and Distributed Recharge of the Carrizo-Wilcox aquifer.” \$209,407.
- 2010-2012 Co-Investigator (**William E. Rogers** w/ Fred Smeins, Bob Lyons, Wayne Hanselka and Josh McGinty), *DuPont Crop Protection and Land Management Services*, “A New Herbicide for Managing Woody Encroachment in South Texas: Rate and Season of Application of Aminocyclopyrachlor on the Control of *Acacia farnesiana* and *Prosopis glandulosa*.” \$56,000.
- 2011 Principal Investigator (**William E. Rogers** w/ Dirac Twidwell), *Rob & Bessie Welder Wildlife Foundation*, “Continuation of Studies Investigating the Ecological Effects of Prescribed Extreme Fires in a Coastal Prairie Ecosystem.” \$9,600.
- 2007-2010 Principal Investigator (**William E. Rogers** w/ co-PI Urs Kreuter) *United States Department of Agriculture- National Resources Conservation Service, Conservation Innovation Grant*, “Using hot summer fire to control *Opuntia cacti*: an innovative approach to resolving a pressing environmental issue.” \$73,697.

- 2006-2010 Principal Investigator (**William E. Rogers** & Fred Smeins), *Brazos Valley Solid Waste Management Agency & US Fish and Wildlife Service* “Conservation Strategies for the Protection and Propagation of the Federally Endangered Orchid, Navasota Ladies Tresses (*Spiranthes parksii*).” \$384,262.
- 2005-2008 Co-PI (with Urs Kreuter, **William E. Rogers**, Richard Teague, Richard Conner, Lynn Drawe, Allen Rasmussen & Butch Taylor), *National Resources Conservation Service, EQIP* “Ecological, economic and social dimensions of using summer fire to restore ecosystems in the southern plains of the USA.” \$376,534.
- 2000-2004 Co-PI (Paul Harcombe, Evan Siemann & **William E. Rogers**), *National Park Service* “Vascular Plant Inventory of the Big Thicket National Preserve. \$117,000.
- 2002 Co-PI (Evan Siemann & **William E. Rogers**), *National Park Service* - monitor floodplain forest dynamics following removal of an invasive tree. \$10,000.
- 2000-2001 Co-PI (Evan Siemann & **William E. Rogers**), *National Park Service* “Impacts of Feral Hogs on Big Thicket Forest Regeneration Dynamics.” \$2,500.
- 2000-2001 Co-PI (Evan Siemann & **William E. Rogers**), *National Park Service* “Removing Chinese tallow trees: methods of control in floodplain forests.” \$40,000.

d) Pending Proposals

None at present

e) Unfunded Proposals

I have had 10 unfunded proposals (6 as lead PI) during the past 10 years. These have been submitted to competitive grant funding agencies such as NSF, USDA, and the USFS-JFSP. Funding percentages frequently ranged between 5-8% success rates for many of these review panels. Most recent: 2016-2021 Senior Personnel (w/ lead-PI Bradford Wilcox and 26 others) *National Science Foundation* “LTER: Southern Great Plains Savanna” \$5,383,773.

6.5 *Research and Other Scholarly Activities*

a) Summary of Total Publication Output:

Number of peer-reviewed publications to date: **69**

Number of peer-reviewed book chapters to date: **3**

Number of peer-reviewed extension publications to date: **3**

Number of published abstracts to date: **150**

b) Google Scholar Metrics (as of 16 March 2021)

Results Found = 78 (some journals not yet indexed, some papers not yet listed)

Sum of Times Articles Cited= 4624; h-index = 33; i10-index=59

*Note that many of the lower impact factor journals where I have published are those where I encouraged authorship by undergraduate students or new graduate students as a training exercise.

d) Refereed Journal Articles (* undergraduate contribution; † graduate student contribution)

In revision/ In review/ In preparation

78. Culpepper, Lela Z., A. Peyton Smith, Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson, Morgan L. Treadwell, Dirac Twidwell, Carissa L. Wonkka & **William E. Rogers**. (In preparation) "Soil physicochemical responses to high-energy fires in a semi-arid savanna." *Soil Biology and Biochemistry*.
77. Culpepper, Lela Z., A. Peyton Smith, Andrew Hillhouse, Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson, Morgan L. Treadwell, Dirac Twidwell, Carissa L. Wonkka & **William E. Rogers**. (In preparation) "Microbial community response to high-energy fires in a woody invaded semi-arid savanna." *Geoderma*.
76. Starns, Heath D., Carissa L. Wonkka, Matthew B. Dickinson, Alexandra G. Lodge, Morgan L. Treadwell, Kathleen L. Kavanagh, Douglas R. Tolleson, Dirac Twidwell & **William E. Rogers**. (in review) *Prosopis glandulosa* persistence is driven by the protection of buds and resource transport tissues differentially during low- and high-energy fires. *Journal of Ecology*.
75. Brady, Mary K., Matthew B. Dickinson, Jessica R. Miesel, Carissa L. Wonkka, Kathleen L. Kavanagh, Alexandra G. Lodge, **William E. Rogers**, Heath D. Starns, Doug R. Tolleson, Morgan L. Treadwell, Dirac Twidwell & Erin J. Hanan (in review) "Soil Heating in Fire (SheFire): a model and measurement method for estimating soil heating across depths over time, and belowground responses in wildland fires." *Ecological Applications*.
74. Mazbahul, G. Ahamad, Dillon T. Fogarty, Caleb P. Roberts, Daniel R. Uden, Scott L. Morford, Matthew O. Jones, Urs P. Kreuter, , Laura D. Goodman, Samuel D. Fuhlendorf, **William E. Rogers**, Morgan L. Treadwell, X. Ben Wu, John Walker, John R. Weir, Bradford P. Wilcox, David E. Naugle, Brady W. Allred, & Dirac Twidwell. (in review) "Economics of scaling-up brush management: A comparative analysis for large-scale conservation planning in the Great Plains." *Global Ecology and Conservation*
73. Sosa[†], Gabriela, William E. Rogers, Charles A. Taylor & Dirac Twidwell[†] (in review) "Re-introducing high-intensity prescribed fire to restore a semi-arid rangeland ecosystem degraded by prickly pear cactus encroachment." *Restoration Ecology*
72. Hiers[†], Quinn A., Morgan L. Treadwell, Matthew B. Dickinson, Alexandra G. Lodge, Kathleen L. Kavanagh, Heath D. Starns, Doug R. Tolleson, Dirac Twidwell, Carissa L. Wonkka. **William E. Rogers** (in review) "Phenology and recovery of native perennial grass bud banks following high-energy fire in a semi-arid savanna system." *Ecological Applications*.
71. Washington-Allen, Robert A., Alfredo Delgado, Maggie Wann Anderson, Cameron Brademan, Richard Bruton, Kyle L. Landholt, Deseri D. Nally, **William E. Rogers**, Georgianne W.

Moore, Rebecca Martinez, Robert W. Duncan & Dirk B. Hays (in review) The use of field and satellite remote sensing to evaluate herbicide control on the invasive plant species Chinese tallow within a compensatory wetland. *GIScience & Remote Sensing*.

70. Hannusch[†], Heather J., **William E. Rogers**, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson (in revision) "Interactive effects of drought, nitrogen deposition, and prescribed fire on the herbaceous community composition of a semi-arid savanna." *Journal of Arid Environments*.

2021

69. Hiers[†], Quinn A., Morgan L. Treadwell, Matthew B. Dickinson, Alexandra G. Lodge, Kathleen L. Kavanagh, Heath D. Starns, Doug R. Tolleson, Dirac Twidwell, Carissa L Wonkka. **William E. Rogers** (2021) "Immediate belowground bud bank responses to fire intensity in a semi-arid savanna system." *Ecology and Evolution*: 14pgs. DOI: <https://doi.org/10.1002/ece3.7516>

68. Brooke[†], Chase T., **William E. Rogers**, Charles Lafon & A. Michelle Lawing (2021) Annual precipitation drives fire occurrence across heterogeneous landscapes in modern and future climate scenarios. *Frontiers in Biogeography* 13:2. 11pgs. DOI:10.21425/F5FBG49497

2020

67. Clark[†], Michele D., Carissa L. Wonkka[†], Urs P. Kreuter & **William E. Rogers** (2020) Effect of prescribed fire and grazing on *Seriphium plumosum* in South African sour bushveld. *African Journal of Range and Forage Science* 37:8pp. DOI: 10.2989/10220119.2020.1751287

66. Hannusch[†], Heather J., **William E. Rogers**, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson (2020) Semi-arid savanna herbaceous production and diversity responses to interactive effects of drought, nitrogen deposition, and fire. *Journal of Vegetation Science* 31:255-265. DOI: 10.1111/jvs.12848

2019

65. Twidwell, Dirac, Carissa L. Wonkka, Hsiao-Hsuan Wang, William E. Grant, Craig R. Allen, Samuel D. Fuhlendorf, Ahjond Garmestani, David Angeler, Charles A. Taylor, Jr., Urs P. Kreuter, **William E. Rogers** (2019) Coerced resilience in grassland fire management. *Journal of Environmental Management* 240:368-373. DOI: 10.1016/j.jenvman.2019.02.073

64. Wang, Hsiao-Hsuan, Carissa L. Wonkka, Michael L. Treglia, William E. Grant, Fred E. Smeins & **William E. Rogers** (2019) Incorporating local-scale variables into distribution models enhances predictability for rare plant species with biological dependencies. *Biodiversity and Conservation* (Springer) 28(1): 171-182. DOI: 10.1007/s10531-018-1645-4

2018

63. Culpepper, Lela Z. *, Hsiao-Hsuan Wang, Tomasz E. Koralewski, William E. Grant & **William E. Rogers** (2018) Understory upheaval: factors influencing Japanese stiltgrass invasion in

forestlands of Tennessee, United States. *Botanical Studies* 59:20. DOI: 10.1186/s40529-018-0236-8

2017

62. Wonkka[†], Carissa L., Jason B. West, Dirac Twidwell[†] & **William E. Rogers** (2017) Grass mortality and turnover following core rangeland restoration practices.” *Rangeland Ecology and Management* 70:290-300. DOI: 10.1016/j.rama.2016.10.011
61. Siemann, Evan, Saara J. DeWalt, Jianwen Zou & **William E. Rogers** (2017) An experimental test of the EICA Hypothesis in multiple ranges: invasive populations outperform those from the native range independent of insect herbivore suppression. *Annals of Botany-Plants* 9: plw087 (13pp). DOI: 10.1093/aobpla/plw087

2016

60. Wonkka[†], Carissa L., Dirac Twidwell[†], Trenton Franz, Charles A. Taylor Jr. & **William E. Rogers** (2016) Persistence of a severe drought increases desertification but not woody dieback in semiarid savanna. *Rangeland Ecology and Management* 69:491-498. DOI: 10.1016/j.rama.2016.07.005
59. Wang, Hsiao-Hsuan, Carissa L. Wonkka[†], William E. Grant & **William E. Rogers** (2016) Range expansion of invasive shrubs: implications for crown fire risk in forestlands of the southern United States. *Annals of Botany-Plants* 8:plw012 (14pp). DOI: 10.1093/aobpla/plw012
58. Twidwell[†], Dirac, **William E. Rogers**, Carissa L. Wonkka[†], Charles A. Taylor, Jr, & Urs P. Kreuter (2016) Extreme prescribed fire during drought reduces survival and density of woody resprouters. *Journal of Applied Ecology* 53:1585-1596. DOI: 10.1111/1365-2664.12674
57. Wonkka[†], Carissa L., Dirac Twidwell[†], Jason B. West & **William E. Rogers** (2016) Shrubland resilience varies across soil types: implications for operationalizing resilience in ecological restoration. *Ecological Applications* 26:128-145. DOI: 10.1890/15-0066.1

2015

56. Wonkka[†], Carissa L., **William E. Rogers** & Urs P. Kreuter (2015) Legal barriers to effective ecosystem management: Exploring linkages between liability, regulations, and prescribed fire. *Ecological Applications* 25(8):2382-2393. DOI: 10.1890/14-1791.1
55. Wang, Hsiao-Hsuan, Carissa L. Wonkka[†], Mike L. Treglia, William E. Grant, Fred E. Smeins & **William E. Rogers** (2015) Species distribution modeling for conservation of an endangered endemic orchid. *Annals of Botany-Plants* 7:plv039 (12pp). DOI: 10.1093/aobpl/plv039 (HHW & CLW are co-lead authors).

2014

54. Zhang, Ling, Hong Wang, Jianwen Zou, **William E. Rogers** & Evan Siemann (2014) Non-

native plant litter enhances soil carbon dioxide emissions in an invaded annual grassland. *PLOS One* 9(3):e92301. DOI: 10.1371/journal.pone.0092301.g003

53. Twidwell[†], Dirac, Jennifer M. Meza*, Charles J. Turney* & **William E. Rogers** (2014) Does prescribed fire facilitate fire ant invasions in coastal prairies or aid management efforts by improving mound search efforts? *Southeastern Naturalist* 13 (sp5):93-104. DOI: 10.1656/058.013.s509
52. Twidwell[†], Dirac, Carissa L. Wonkka[†], Charles A. Taylor, Jr., Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers** (2014) Drought-induced woody plant mortality in an encroached semiarid savanna depends on topographic factors and land management. *Applied Vegetation Science* 17:42-52. DOI: 10.1111/avsc.12044

2013

51. Twidwell[†], Dirac, **William E. Rogers**, Samuel D. Fuhlendorf, Carissa L. Wonkka[†], David M. Engle, John R. Weir, Urs P. Kreuter & Charles A. Taylor, Jr. (2013) The rising Great Plains fire campaign: citizenry response to woody plant encroachment. *Frontiers in Ecology and the Environment* 11:e64-e71. DOI: 10.1890/130015
50. Twidwell[†], Dirac, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. & **William E. Rogers** (2013) Refining thresholds in coupled fire-vegetation models to improve management of encroaching woody plants in grasslands. *Journal of Applied Ecology* 50:603-613. DOI:11/1365-2664.12063

2012

49. Twidwell[†], Dirac, **William E. Rogers**, Elizabeth A. McMahon*, Bryce R. Thomas[†], Urs P. Kreuter & Terry Blankenship (2012) Prescribed extreme fire effects on richness and invasion in coastal prairie. *Invasive Plant Science and Management* 5:330-340. DOI: 10.1614/IPSM-D-12-00017.1
48. Wang, Hsiao-Hsuan, Carissa L. Wonkka[†], William E. Grant & **William E. Rogers** (2012) Potential range expansion of Japanese honeysuckle (*Lonicera japonica* Thunb.) in southern U.S. forestlands. *Forests* 3:573-590. DOI:10.3390/f3030573
47. Wang, Hsiao-Hsuan, William E. Grant, Jianbang Gan, **William E. Rogers**, Todd M. Swannack, Tomasz E. Koralewski, James H. Miller & John W. Taylor Jr (2012) Integrating spread dynamics and economics of timber production to manage Chinese tallow invasions in southern U.S. forestlands. *PLoS One* 7(3):e33877. DOI: 10.1371/journal.pone.0033877
46. Park, Isaac, Saara J. DeWalt, Evan Siemann & **William E. Rogers** (2012) Differences in cold hardiness between introduced populations of an invasive tree. *Biological Invasions* 14:2029-2038. BINV2378. DOI 10.1007/s10530-012-0209-x
45. Wonkka[†], Carissa L., **William E. Rogers**, Fred E. Smeins, J. Ryan Hammons[†], Sarah J.

Haller[†] & Martha C. Ariza[†] (2012) Biology, ecology, and conservation of Navasota ladies' tresses (*Spiranthes parksii* Correll), an endangered terrestrial orchid of Texas. *Native Plants Journal* 13:236-244.

2011

44. DeWalt, Saara J., Evan Siemann & **William E. Rogers** (2011) Geographic distribution of genetic variation among native and introduced populations of Chinese tallow tree, *Triadica sebifera* (Euphorbiaceae). *American Journal of Botany* 98:1128-1138.
43. Wang, Hsiao-Hsuan, William E. Grant, Todd M. Swannack, Jianbang Gan, **William E. Rogers**, Tomasz E. Koralewski, James H. Miller & John W. Taylor Jr. (2011) Predicted range expansion of Chinese tallow tree (*Triadica sebifera*) in forestlands of the southern United States. *Diversity and Distributions* 17:552-565.

2010

42. Hartley[†], Maria K., **William E. Rogers** & Evan Siemann (2010) Comparisons of arthropod assemblages on an invasive and native trees: abundance, diversity and damage. *Arthropod-Plant Interactions* 4:237-245.
41. Hammons[†], J Ryan, Fred E. Smeins & **William E. Rogers** (2010) Transplant methods for the endangered orchid, *Spiranthes parksii* Correll. *North American Native Orchid Journal* 16:38-46.
40. Nijjer[†], Somereet, **William E. Rogers** & Evan Siemann (2010) The impacts of fertilization on mycorrhizal production and investment in Western Gulf Coast Grasslands. *American Midland Naturalist* 163:124-133.

2009

39. Siemann, Evan, Juli A. Carrillo, Christopher A. Gabler, Roy Zipp & **William E. Rogers** (2009) Experimental test of the impacts of feral hogs on forest dynamics and processes in the southeastern US. *Forest Ecology and Management* 258:546-553.
38. Zou[†], Jianwen, **William E. Rogers** & Evan Siemann (2009) Plasticity of *Sapium sebiferum* seedling growth to light and water resources: inter- and intraspecific comparisons. *Basic and Applied Ecology*: 10:79-88.

2008

37. Zou[†], Jianwen, Evan Siemann, **William E. Rogers** & Saara J. DeWalt (2008) Decreased resistance and increased tolerance to native herbivores of the invasive plant *Sapium sebiferum*. *Ecography* 31:663-671.
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34. Nijjer[†], Somereet, **William E. Rogers**, Cin-Ty A. Lee & Evan Siemann (2008) The effects of soil biota and fertilization on the success of *Sapium sebiferum*. *Applied Soil Ecology* 38:1-11.

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d) Extension Publications/Weblogs/Conference Proceedings (3)

3. Russell-Treadwell, Morgan L., Carissa L. Wonkka, **William E. Rogers** & Urs P. Kreuter (2016) “Legal Barriers to Prescribed Burning.” Texas A&M AgriLife Extension – Texas A&M System Publication ERM-022, 5pp.
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e) Published Abstracts (150) (* undergraduate contribution; † graduate student contribution)

150. Heath D. Starns, Carissa L. Wonkka, Alexandra G. Lodge, Dirac Twidwell, Morgan L. Treadwell, Kathleen L. Kavanagh, Matthew B. Dickinson, Douglas R. Tolleson & **William**

- E. Rogers.** 2021. “Effects of fire intensity on resprouting vigor of mesquite (*Prosopis glandulosa*).” Abstracts – Society for Range Management Annual Meeting, Virtual.
149. Virginia D. Preiss, **William E. Rogers**, Alexandra G. Lodge, Quinn A. Hiers, Jacqueline Lara, Matthew B. Dickinson, Kathleen L. Kavanagh, Heath D. Starns, Doug R. Tolleson, Morgan L. Treadwell, Dirac Twidwell, & Carissa L Wonkka. 2021. “Shifting savanna stability: Assessing semi-arid grassland dynamics via experimental manipulations of fire disturbance and non-native herbivore impacts.” Abstracts – Society for Range Management Annual Meeting, Virtual.
148. Krusec, Isabella, A. Peyton Smith, Garrett McKay, Matthew J. Peterson, Yamina Pressler, **William E. Rogers**, Kelly Brumbelow & Georgianne Moore. 2020. “Soil carbon persists under prescribed fire and experimental drought in a semi-arid savanna.” Abstracts - American Geophysical Union 101st Annual Meeting.
147. Peterson, Matthew J., Yamina Pressler, Charles A. Knight, Heather J. Hannusch, Lela Z. Culpepper, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson, **William E. Rogers** & A. Peyton Smith. 2020. “How does prescribed fire influence soil microbial composition and activity after an experimentally induced drought? Evidence for microbial resistance in a semi-arid savanna soil.” Abstracts - Soil Science Society of America-ASA-CSSA Joint International Annual Meeting. ***Winner of Best Student Poster in the Forest, Range & Wildland Soils Division.***
146. Wang, Hsiao-Hsuan , Carissa L Wonkka, Frederico Mestre, Diogo Alagador, Tomasz E. Koralewski, Michael L. Treglia, Andrzej Pękalski, William E. Grant, Fred Smeins & **William E. Rogers**. 2020. “Plant Conservation in Temporally Variable, Spatially Heterogeneous Environments.” Abstracts - Texas Plant Protection Conference.
145. Wonkka, Carissa L., Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, **William E. Rogers**, Heath D. Starns, Douglas R. Tolleson, Morgan L. Treadwell & Dirac Twidwell. 2020. “High-energy fires reduce *Juniperus virginiana* and *Prosopis glandulosa* densities in invaded grasslands.” Abstracts - Ecological Society of America 103rd Annual Meeting, Salt Lake City, UT.
144. Heath D. Starns, Carissa L. Wonkka, Alexandra G. Lodge, Dirac Twidwell, Morgan L. Treadwell, Kathleen L. Kavanagh, Matthew B. Dickinson, Douglas R. Tolleson & **William E. Rogers**. 2020. “Effects of fire intensity on resprouting vigor of mesquite (*Prosopis glandulosa*).” Abstracts – Society for Range Management Annual Meeting, Denver, CO.
143. **Rogers, William E.**, Heather J. Hannusch[†], Alexandra G. Lodge, Douglas R. Tolleson & Heath D. Starns. 2019. “An experimental assessment of semi-arid savanna resilience to interactions of drought, fire, and soil fertility.” Abstracts – American Geophysical Union 100th Annual Meeting, San Francisco, CA.
142. Pressler, Yamina, Heather J. Hannusch[†], **William E. Rogers**, A. Peyton Smith 2019. “Soil

- microbial and nematode responses to interactive drought and fire disturbances in a semi-arid savanna rangeland.” Abstracts – Soil Science Society of America, American Society of Agronomy, Crop Science Society of America Joint Annual Meeting, San Antonio, TX.
141. **Rogers, William E.**, Quinn A. Hiers[†], Lela Z. Culpepper[†], Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Morgan L. Treadwell, Heath D. Starns, Douglas R. Tolleson, Dirac Twidwell, Carissa L. Wonkka. 2019. “Grass species morphology and phenology affect belowground bud banks and resprouting responses in burned semi-arid Texas savanna.” Abstracts – Association for Fire Ecology 8th International Annual Meeting, Tucson, AZ.
140. Starns, Heath D., Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Morgan L. Treadwell, Douglas R. Tolleson, Dirac Twidwell, Carissa L. Wonkka, & **William E. Rogers**. 2019. “Effects of fire intensity on resprouting woody species.” Abstracts – Association for Fire Ecology 8th International Annual Meeting, Tucson, AZ.
139. **Rogers, William E.**, Heather J. Hannusch[†], Alexandra G. Lodge, Douglas R. Tolleson & Heath D. Starns. 2019. “Ecological resilience in semi-arid savanna ecosystems: an experimental assessment of fire, drought, and soil fertility interactions.” Abstracts – Ecological Society of America 102nd Annual Meeting, Louisville, KY.
138. Starns, Heath D., Carissa L Wonkka, Alexandra G. Lodge, Dirac Twidwell, Morgan L. Treadwell, Kathleen L. Kavanagh, Matthew B. Dickinson, Douglas R. Tolleson & **William E. Rogers**. 2019. “Effects of fire intensity and abiotic factors on persistence of an encroaching woody species.” Abstracts – International Association of Wildland Fire Annual Fire Behavior & Fuels Conference, Albuquerque, NM.
137. Culpepper, Lela, **Rogers, William E.**, Payton G. Smith, Christine Morgan, Alexandra G. Lodge, Kathleen L. Kavanagh, Matthew B. Dickinson, Heath D. Starns, Morgan L. Treadwell, Doug R. Tolleson, Dirac Twidwell, Carissa L Wonkka. 2019. "Soil Characteristics and Microbial Responses to Different Fire Intensities in a Woody Encroached Arid Savanna." Abstracts - Society for Range Management 71st Annual Meeting, Minneapolis, MN.
136. Hannusch, Heather J., **William E. Rogers**, Alexandra G. Lodge, Doug R. Tolleson & Heath D. Starns. 2019. “Effects of Fire, Drought, and Soil Fertility on Herbaceous Communities in a Semi-Arid Savanna.” Abstracts - Society for Range Management 71st Annual Meeting, Minneapolis, MN.
135. Lodge, Alexandra G., Kathleen L. Kavanagh, Matthew B. Dickinson, Heath D. Starns, Morgan L. Treadwell, Doug R. Tolleson, Dirac Twidwell, Carissa L Wonkka, & **William E. Rogers**. 2019. “Mechanisms of Persistence if Resprouting Shrubs and Grasses in a Semi-Arid Mesquite Savanna Following Extreme Fire.” Abstracts - North American Forest Ecology Workshop Conference, Flagstaff, AZ.

134. Hannusch, Heather J., **William E. Rogers**, Alexandra G. Lodge, Doug R. Tolleson & Heath D. Starns. 2018. "Effects of Fire, Drought, and Soil Fertility on Herbaceous Communities in a Semi-Arid Savanna." Abstracts - Texas Section for the Society of Range Management, Lubbock, TX.
133. Wang, Hsiao-Hsuan, Frederico Mestre, Carissa Wonkka, Michael Treglia, William E. Grant, Fred Smeins, **William E. Rogers**. 2018. "Synergistic Effects of Habitat Fragmentation and Climate Change on Conservation of an Endangered Orchid." Abstracts - Texas Plant Conservation Conference, Botanical Research Institute of Texas, Fort Worth Botanic Garden, Fort Worth, TX.
132. Heldman*, Samantha M, Miranda Peterson*, Christopher Vasquez*, Zakary Derouen*, Hsiao-Hsuan "Rose" Wang, William E. Grant & **William E. Rogers**. 2018. "Rapidly increasing invasion by Chinese tallow in southeast United States." Abstracts, Texas Chapter of the Wildlife Society Meeting, Annual Meeting, Dallas, TX.
131. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**. 2017. "Species distribution model for management: influencing factors and implications for mitigation of an invasive grass in forestlands of Tennessee." Abstracts, Ecological Society of America 102nd Annual Meeting, Portland, OR.
130. Wilcox, Bradford P., Samuel D. Fuhlendorf, Steven R. Archer, Thomas W. Boutton, Jason B. West, Perry S. Barboza, **William E. Rogers**, Andrew Birt, X. Ben Wu, Urs P. Kreuter, Kathleen Kavanagh, Douglas R. Tolleson & John W. Walker. 2017. "Savanna Long-term Research and Education Initiative in the Southern Great Plains." Abstracts, 52nd Congress of the Grassland Society of Southern Africa, Hoedspruit, South Africa.
129. **William E. Rogers**, Carissa L. Wonkka & Dirac Twidwell. 2017. "Hercules and the Hydra Revisited: combining traditional management efforts with fire to control resprouting woody plant encroachment and restore savanna ecosystems." Abstracts, 52nd Congress of the Grassland Society of Southern Africa, Hoedspruit, South Africa.
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127. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**. 2017. Proactive management of invasive plant species: influencing factors and implications for mitigation of an invasive grass in forestlands of Tennessee. Abstracts, 18th Annual Texas A&M University Ecological Integration Symposium. College Station, TX.
126. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**. 2017. "The hunt for drivers of plant invasions: influencing factors and implications for mitigation of an invasive grass in forestlands of Tennessee." Abstracts, Texas A&M Student Research Week,

College Station, TX.

125. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**. 2017. "Tracking its roots: Expansion by Japanese stiltgrass in the forestlands of Tennessee." Abstracts. 53rd Annual Meeting of the Texas Chapter of the Wildlife Society: Wildlife Conservation and Management on Private Lands, San Antonio, TX.
124. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**. 2017. Tracking its roots: Expansion by Japanese stiltgrass in the forestlands of Tennessee." Abstracts, TAMUS LSAMP Symposium. Prairie View, TX.
123. Culpepper*, Lela Z., & Hsiao-Hsuan Wang, **William E. Rogers** & William E. Grant. 2017. "Recent range expansions by Japanese stiltgrass (*Microstegium vimineum* (Trin.) A. Campus) in the forestlands of Tennessee." Abstracts, The International Biogeography Society 8th Biennial Conference, Tucson, AZ.
122. Richardson, Andrew, Hsiao-Hsuan Wang, William E. Grant, Masami Fujiwara & **William E. Rogers**. 2016. "Evaluation of frequencies of prescribed burning to control plant invasions on coastal prairie." Abstracts, Ecological Society of America 101st Annual Meeting, Fort Lauderdale, Florida.
121. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Michele D. Clark[†]. 2016. "Hercules and the Hydra Hypothesis: Is rangeland restoration more effective when combined with fire? Abstract, Society for Range Management 69th Annual Meeting, Corpus Christi, Texas.
120. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Jason B. West. 2015. Operationalizing resilience in a shrub-encroached semi-arid rangeland ecosystem: A new opportunity for ecological restoration? Abstracts, Society for Ecological Restoration, Texas Chapter 20th Annual Meeting, San Antonio, Texas.
119. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Jason B. West. 2015. Operationalizing resilience in ecological restoration: A case study in a shrub-encroached semi-arid rangeland ecosystem. Abstracts, Ecological Society of America 100th Annual Meeting, Baltimore, Maryland.
118. Landolt*, Kyle L., Robert A. Washington-Allen, Alfredo Delgado*, Cameron Brademan[†], Maggie Wann*, Deseri D. Nally^{*†}, Richard Bruton^{*†} & **William E. Rogers**. 2015. Can Chinese tallow distribution be reduced to certification levels within Greens Bayou Wetlands Mitigation Bank? Abstracts, Annual Meetings of the Association of American Geographers, Chicago, IL.
117. Wonkka[†], Carissa L., Dirac Twidwell[†], Jason B. West & **William E. Rogers**. 2015. Spatial resilience in a semi-arid shrubland: implications for operationalizing resilience in ecological restoration. Abstracts, Society for Rangeland Ecology 68th Annual Meeting, Sacramento,

CA.

116. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], Fred E. Smeins & Martha C. Ariza[†]. 2014. "Can fire and herbivory be manipulated to restore endangered terrestrial orchid populations in a Texas post oak savanna?" Abstracts, Biennial Texas Plant Conservation Conference, Austin, Texas.
115. Fred E. Smeins, **William E. Rogers**, Martha C. Ariza[†], Carissa L. Wonkka[†] & Richard K. Bruton[†]. 2014. "Biology/ecology of Navasota ladies'-tresses (*Spiranthes parksii*): current state of knowledge." Abstracts, Biennial Texas Plant Conservation Conference, Austin, Texas.
114. Richard K. Bruton[†], Fred E. Smeins, Martha C. Ariza[†], **William E. Rogers** & Alfredo Delgado. 2014. "The effects of woody plant management on habitat conditions and plant demography of the endangered orchid, *Spiranthes parksii* Correll." Abstracts, Biennial Texas Plant Conservation Conference, Austin, Texas.
113. Hsiao-Hsuan, Wang, Carissa L. Wonkka[†], Michael L. Treglia, William E. Grant, Fred E. Smeins & **William E. Rogers**. 2014. "Determinants and likelihood of occurrence of an endangered endemic orchid (*Spiranthes parksii* (Correll)) in central Texas." Abstracts, Biennial Texas Plant Conservation Conference, Austin, Texas.
112. Martha C. Ariza[†], **William E. Rogers**, Fred E. Smeins & Heath Mills. 2014. "Mycorrhizal fungi of *Spiranthes parksii*: specificity and effects germination." Abstracts, Biennial Texas Plant Conservation Conference, Austin, Texas.
111. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Michele D. Clark[†]. 2014. "Hercules and the Hydra: Are mechanical, chemical, and/or grazing treatments of resprouting woody plants more effective when combined with fire?" Abstracts, 57th Symposium of the International Association for Vegetation Science. In: Muchina, L., J.N. Price & J.N. Kalwij (eds) Biodiversity and vegetation: patterns, processes, conservation. Pg. 177 Kwongan Foundation, Perth, Australia.
110. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], Fred E. Smeins & Martha C. Ariza[†]. 2014. "Can experimental manipulations of fire and herbivory be utilized to restore populations of an endangered terrestrial orchid in Texas post oak savannas?" Abstracts, Ecological Society of America 99th Annual Meeting, Sacramento, CA.
109. Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†] & Terry L. Blankenship. 2014. "Interactive effects of prescribed fire and grazing on invasive grass abundance and woody brush encroachment in a south Texas coastal prairie." Abstracts, Ecological Society of America 99th Annual Meeting, Sacramento, CA.
108. Carissa L. Wonkka[†], **William E. Rogers** & Urs P. Kreuter. 2014. "Legal barriers to effective ecosystem management: Exploring linkages between liability, regulations, and

- prescribed fire.” Abstracts, Ecological Society of America 99th Annual Meeting, Sacramento, CA.
107. Robert A. Washington-Allen, Alfredo Delgado, Kyle Landolt*, Cameron G. Brademan†, Maggie Wann, Deseri D. Nally†, Richard Bruton†, **William E. Rogers**, Rebecca Martinez & Cathy Rogers-McCoy. 2014. “Restoration of an urban wetland mitigation bank from invasion by Chinese Tallow.” Abstracts, Ecological Society of America 99th Annual Meeting, Sacramento, CA.
106. Michele D. Clark†, **William E. Rogers**, Carissa L. Wonkka† & Terry L. Blankenship. 2014. “Interactive effects of prescribed fire and grazing on invasive grass abundance and woody brush encroachment in a south Texas coastal prairie.” Abstracts, 16th Annual Ecological Integration Symposium, Texas A&M University.
105. Gabriela Sosa†, **William E. Rogers** & Charles A. Taylor, Jr. 2014. “Manipulating prolonged drought conditions on a prickly pear encroached rangeland.” Abstracts, Society of Range Management Annual Meeting, Orlando, FL.
104. **William E. Rogers**, Dirac Twidwell†, Carissa L. Wonkka†, Urs P. Kreuter & Charles A. Taylor, Jr. 2013. “Ecological and societal resistance to prescribed extreme fire inhibit management efforts to restore degraded Texas rangelands: can we overcome these constraints?” Abstracts, Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX.
103. Carissa L. Wonkka†, Dirac Twidwell†, Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**. 2013. “Drought-induced woody plant mortality and community composition shifts in an encroached Texas savanna: comparing the 1950s and the 2000s.” Abstracts, Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX.
102. Michele D. Clark†, **William E. Rogers**, Carissa L. Wonkka†, & Terry Blankenship. 2013. “Interactive effects of prescribed fire and grazing on woody encroachment and invasive grass abundance in a southeastern Texas coastal prairie.” Abstracts, Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX.
101. Deseri Nally†, Fred E. Smeins, **William E. Rogers**, Micky Eubanks, Richard Bruton†, Martha C. Ariza† & Carissa L. Wonkka†. 2013. “Determining impact of small mammal and insect herbivory and transplant resilience of the federally endangered Navasota ladies'-tresses (*Spiranthes parksii*).” Abstracts, Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX.
100. Nicole Ortiz†, **William E. Rogers**, Fred E. Smeins & Diana Doan-Crider. 2013. “Life history of the endangered poppy, *Argemone pleiacantha* subsp. *pinnatisecta*, along an elevational gradient.” Abstracts, Society for Ecological Restoration, Texas Chapter and

Texas Riparian Association Joint Conference, Junction, TX.

99. Dirac Twidwell, Samuel D. Fuhlendorf, Brady Allred & **William E. Rogers**. 2013. "Moving toward a more dynamic platform for restoration and the need to consider extreme disturbance events." Abstracts, Society for Ecological Restoration International, 5th World Conference, Madison, WI.
98. **William E. Rogers**, Dirac Twidwell[†], Carissa L. Wonkka[†], Urs P. Kreuter, Charles A. Taylor, Jr. 2013. "Can novel combinations of prescribed extreme fire and herbicide be used to overcome resprouting woody plant resilience and restore degraded rangelands in the southern Great Plains?" Abstracts, Ecological Society of America 98th Annual Meeting, Minneapolis, MN
97. Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**. 2013. "Patch-specific woody plant mortality following severe drought in a semi-arid Texas savanna." Abstracts, Ecological Society of America 98th Annual Meeting, Minneapolis, MN
96. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Fred E. Smeins. 2013. "Dynamics of an endangered terrestrial orchid in response to experimental manipulations of fire and herbivory in a Texas post oak savanna." Abstracts, 56th International Association of Vegetation Science, Tartu, Estonia.
95. Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**. 2013. "Topoedaphic factors and land management drive patchy drought-induced woody mortality in an encroached semiarid savanna: comparing the 1950s to the 2000s." Abstracts, 56th International Association of Vegetation Science, Tartu, Estonia.
94. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Fred E. Smeins. 2013. "Effects of fire and herbivory on an endangered terrestrial orchid in a Texas post oak savanna." Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK
93. Carissa L. Wonkka[†], **William E. Rogers** & Dirac Twidwell[†]. 2013. "An experimental assessment of different restoration practices in a brush encroached south Texas rangeland." Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK.
92. Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†], Deseri Nally*, Richard W. Teague, Urs P. Kreuter & James Muir. 2013. "The interactive effects of prescribed fire and ungulate grazing on bankrupt bush (*Seriphium plumosum*) in a South African highveld grassland." Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK.
91. Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J.

- Twidwell & **William E. Rogers**. 2013. “Exceptional drought events cause patch-level patterns of woody dieback in semiarid Texas: comparing the 2000s to the 1950s.” Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK.
90. Gabriela Sosa[†], **William E. Rogers** & Charles A. Taylor, Jr. 2013. “Manipulating prolonged drought conditions on a prickly pear encroached rangeland.” Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK.
89. Dirac Twidwell[†], Sam Fuhlendorf, **William E. Rogers** & Charles A. Taylor, Jr. 2013. “Coupling fire physics and fire ecology to quantify state transitions and guide restoration actions.” Abstracts, Society of Range Management Annual Meeting, Oklahoma City, OK.
88. Carissa L. Wonkka[†], **William E. Rogers**, Dirac Twidwell[†], Fred E. Smeins & Masami Fujiwara. 2012. “Exploring population level herbivore effects on an endangered terrestrial orchid.” Abstracts, Ecological Society of America 97th Annual Meeting, Portland, OR.
87. **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], Fred E. Smeins. 2012. “Effects of fire and herbivory on an endangered terrestrial orchid in a Texas post oak savanna.” Abstracts, Ecological Society of America 97th Annual Meeting, Portland, OR.
86. Martha C. Ariza[†], **William E. Rogers**, Fred E. Smeins & J. Ryan Hammons[†]. 2012. “In situ seed germination and mycorrhizal associations of the endangered terrestrial orchid *Spiranthes parksii*.” Abstracts, Ecological Society of America 97th Annual Meeting, Portland, OR.
85. Dirac Twidwell[†], **William E. Rogers** & Charles A. Taylor, Jr. 2011. “Applying prescribed extreme fire within a resilience framework to help stakeholders adapt to changing rangeland environments.” Abstracts, Ecological Society of America 96th Annual Meeting, Austin, TX.
84. **William E. Rogers**, Dirac Twidwell[†], Elizabeth A. McMahon^{*}, Bryce R. Thomas[†], Urs P. Kreuter & Terry L. Blankenship. 2011. “Using prescribed extreme fire for coastal prairie restoration: effects on species richness and invasion.” Abstracts, Ecological Society of America 96th Annual Meeting, Austin, TX.
83. Hsiao-Hsuan Wang, William E. Grant, Todd M. Swannack, Jianbang Gan, **William E. Rogers**, Tomasz E. Koralewski, James H. Miller & John W. Taylor, Jr. 2011. “Predicted range expansion of Chinese tallow tree (*Triadica sebifera*) in forestlands of the southern United States.” Abstracts, Ecological Society of America 96th Annual Meeting, Austin, TX.
82. Carissa L. Wonkka[†], **William E. Rogers**, Fred E. Smeins & Dirac Twidwell[†]. 2011. Fire-induced divergence of the lifecycle of an endangered terrestrial orchid (*Spiranthes parksii* Correll). Abstracts, Ecological Society of America 96th Annual Meeting, Austin, TX.

81. Dirac Twidwell[†] & **William E. Rogers**. 2011. "Prairie and savanna restoration with controlled wildfire." Abstracts, Welder Wildlife Student Symposium, Sinton, TX.
80. Gabriela Sosa[†], **William E. Rogers** & Charles A. Taylor, Jr. 2011. "Reducing prickly pear encroachment with prescribed fire." Abstracts, Grasslands in a Global Context – Konza Prairie Anniversary Symposium, Manhattan, KS.
79. **William E. Rogers**, Dirac Twidwell[†] & Terry L. Blankenship. 2011. "Restoring west Gulf coastal prairies using prescribed extreme fires." Abstracts, West Gulf Coastal Plain and Big Thicket Science Conference, Nacogdoches, TX.
78. Dirac Twidwell[†], Jennifer M. Meza^{*}, C. Jack Turney^{*} & **William E. Rogers**. 2011. "Alien fire ant and native harvester ant responses to coastal prairie restoration with fire." Abstracts, West Gulf Coastal Plain and Big Thicket Science Conference, Nacogdoches, TX.
77. Dirac Twidwell[†], **William E. Rogers**, Samuel Fuhlendorf, Charles Taylor, Jr. and David Engle. 2011. "Moving beyond the myths and traditions of fire behavior in rangelands." Abstracts, Society of Range Management Annual Meeting, Billings, MT.
76. Charles A. Taylor, Jr., Dirac Twidwell[†], **William E. Rogers**. 2011. "Conquering social and ecological fire thresholds to empower and equip ranchers to manage rangelands." Abstracts, Society of Range Management Annual Meeting, Billings, MT.
75. Carissa L. Wonkka[†], **William E. Rogers**, Fred E. Smeins, and Dirac Twidwell[†]. 2011. "Herbivore effects on life-stage transitions of an endangered orchid, *Spiranthes parksii* Correll." Abstracts, Society of Range Management Annual Meeting, Billings, MT.
74. Jennifer Meza^{*}, Dirac Twidwell, & **William E. Rogers**. 2010. Can ecological restoration reverse human-driven changes in fire ant and native harvester ant numbers? 16th International Symposium on Society and Resource Management. Corpus Christi, TX, June 2-6, 2010.
73. Carissa L. Wonkka[†], **William E. Rogers**, Dirac Twidwell[†], Sarah J. Haller[†], Fred E. Smeins, and J. Ryan Hammons[†]. 2010. "Experimental manipulation of biotic and abiotic factors to determine their implications for conservation of an endangered endemic orchid (*Spiranthes parksii*)" Abstracts, Ecological Society of America 95th Annual Meeting, Pittsburgh, PA.
72. Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, and Charles A. Taylor, Jr. 2010. "Using prescribed extreme fire to collapse and restore ecological systems: the benefits of quantifying resilience." Abstracts, Ecological Society of America 95th Annual Meeting, Pittsburgh, PA.
71. **William E. Rogers**, Dirac Twidwell[†], Gabriela Sosa[†], and Charles A. Taylor, Jr. 2010.

- “Restoring shrub invaded rangelands with prescribed extreme fire.” Abstracts, Ecological Society of America 95th Annual Meeting, Pittsburgh, PA.
70. Dirac Twidwell[†], **William E. Rogers**, & Steven G. Whisenant. 2010. “PhD-instructed undergraduate research: more than an undergraduate education and doctoral dissertation.” Abstracts, Ecological Society of America 95th Annual Meeting, Pittsburgh, PA.
69. **William E. Rogers**, Dirac Twidwell[†], Gabriela Sosa[†], Charles A. Taylor. 2010. “Prescribed extreme fire for restoring Texas rangelands degraded by persistent invasive plants.” Abstracts, Society of Range Management-Weed Science Society of America Joint Meeting, Denver, CO.
68. Gabriela Sosa[†], **William E. Rogers**, Dirac Twidwell & Charles A. Taylor, Jr. 2010. “Restoring a Degraded Rangeland: Examining the effects of seasonality and herbivory on *Opuntia* Cacti Management.” Abstracts, Student Research Week-Ecological Integration Symposium, College Station, TX.
67. Charles J. Turney^{*}, Dirac Twidwell[†] & **William E. Rogers**. 2009. Overcoming a fiery invader: implications for fire ant control. 10th Annual Ecological Integration Symposium. College Station, TX, March 6-7, 2009.
66. Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. & Urs P. Kreuter. 2009. "Ecological and social resilience in fire dependent systems: a preview." Abstracts, Society of Range Management meeting, Albuquerque, NM.
65. Charles J. Turney^{*}, Dirac Twidwell[†], & **William E. Rogers** 2009. "Prescribed fire impacts on red imported fire ant (*Solenopsis invicta*) densities across three ecoregions in Texas." Abstracts, Society of Range Management meeting, Albuquerque, NM.
64. Urs Kreuter, W. Richard Teague, **William E. Rogers**, C. A. Taylor Jr. & D. Lynn Drawe. 2009. "Ecological, economic, and social dimensions of using summer fire to restore ecosystems in the southern plains of the US. Abstracts, Society of Range Management meeting, Albuquerque, NM.
63. Alfredo Delgado^{*}, Dirac Twidwell, Robert A. Washington-Allen, **William E. Rogers**, and Sorin C. Popescu. 2009. "Evaluating cross-scale resilience of an invaded savanna using field-based pulsed lidar." Abstracts, 94th Annual Ecological Society of America Meeting, Albuquerque, New Mexico.
62. Sarah J. Haller[†], **William E. Rogers**, Fred E. Smeins, and Carissa L. Wonkka[†]. 2009. "Interactive effects of soil resources and light availability on the establishment and growth of an endangered orchid, Navasota Ladies' Tresses (*Spiranthes parksii*)" Abstracts, 94th Annual Ecological Society of America Meeting, Albuquerque, New Mexico.

61. Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor Jr., and Urs P. Kreuter. 2009. "Predicting the cyclic collapse between grassland and juniper woodland." Abstracts, 94th Annual Ecological Society of America Meeting, Albuquerque, New Mexico.
60. Charles J. Turney^{*}, Dirac Twidwell[†], and **William E. Rogers**. 2009. "Small threats, big challenges: Using prescribed fire to locate and manage for fire ant (*Solenopsis invicta*) invasion in Texas." Abstracts, 94th Annual Ecological Society of America Meeting, Albuquerque, New Mexico.
59. Carissa L. Wonkka[†], **William E. Rogers**, and Dirac Twidwell[†]. 2009. "The effects of fire and herbivory on an endangered endemic orchid, Navasota ladies tresses (*Spiranthes parksii*)." Abstracts, 94th Annual Ecological Society of America Meeting, Albuquerque, New Mexico.
58. Urs P. Kreuter, W. Richard Teague, J. Richard Conner, **William E. Rogers**, Charles Taylor, Jr. 2009. "Using extreme fire to restore ecosystems in the southern plains: an ecological, economic and social evaluation." Abstracts, 19th Conference of the Society for Ecological Restoration International, Perth, Australia
57. Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. and Urs P. Kreuter 2009. "Overcoming ecological and social resilience to restore fire dependent systems." Abstracts, 19th Conference of the Society for Ecological Restoration International, Perth, Australia.
56. Gabriela Sosa[†], **William E. Rogers**, Charles A. Taylor, Jr., and Dirac Twidwell[†]. 2009. "Restoring a degraded rangeland: using fire and herbivory to control *Opuntia* cacti encroachment." Abstracts, 19th Conference of the Society for Ecological Restoration International, Perth, Australia.
55. **William E. Rogers**, Sarah Haller[†], Ryan Hammons, Fred E. Smeins, and Carissa L. Wonkka[†]. 2009. "Woody shrub encroachment limits the establishment of an endangered orchid, Navasota Ladies' Tresses (*Spiranthes parksii*): restoration strategies for Texas post oak savanna." Abstracts, 19th Conference of the Society for Ecological Restoration International, Perth, Australia.
54. Robert A. Washington-Allen, Dirac Twidwell, Vincent P. Mendieta, Alfredo Delgado^{*}, Brett Redman, Winston Trollope, Lynne Trollope, Navashni Govender, Izak Smit, Sorin Popescu, Chris de Bruno Austin, **William E. Rogers**, and Matt C. Reeves. 2009. "Undergraduate Research Experiences in Support of Dryland Monitoring: Field and Satellite Remote Sensing of Change in Savanna Structure, Biomass, and Carbon after Prescribed Fires." Abstracts, American Geophysical Union meeting, San Francisco, CA.
53. Robert A. Washington-Allen, Dirac Twidwell, Vincent P. Mendieta, Alfredo Delgado^{*}, Brett Redman, Winston Trollope, Lynne Trollope, Navashni Govender, Izak Smit, Sorin

- Popescu, Chris de Bruno Austin, **William E. Rogers**, and Matt C. Reeves. 2009. "Undergraduate Research Experiences in Support of Dryland Monitoring: Field and Satellite Remote Sensing of Change in Savanna Structure, Biomass, and Carbon after Prescribed Fires." Abstracts, Silvilaser the 9th international conference on lidar applications for assessing forest ecosystems, College Station, TX.
52. Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr., Urs P. Kreuter. 2009. "Ecological and social resilience in fire dependent systems: a preview." Abstracts, 10th Annual Ecological Integration Symposium. College Station, TX.
51. Carissa L. Wonkka[†], **William E. Rogers**, Dirac Twidwell[†]. 2009. "The effects of fire and herbivory on an endangered endemic orchid, Navasota Ladies Tresses (*Spiranthes parksii*)." Abstracts, 10th Annual Ecological Integration Symposium. College Station, TX.
50. Gabriela Sosa[†], **William E. Rogers**, Dirac Twidwell[†] and Charles A. Taylor, Jr. 2009 "Prescribed fire as a management tool to prevent *Opuntia* cacti encroachment." Abstracts, 12th Annual TAMU Student Research Week, College Station, TX.
49. Martha C. Ariza[†], J. Ryan Hammons[†], **William E. Rogers**, and Fred E. Smeins. 2009. "In situ seed germination and mycorrhizal associations of the endangered orchid *Spiranthes parksii*." Abstracts, Texas Plant Conservation Conference, Austin, TX.
48. J. Ryan Hammons[†], Fred E. Smeins, and **William E. Rogers**. 2009. "Demographics, life history, and transplantation methods for an endangered orchid endemic to Texas, Navasota ladies' tresses (*Spiranthes parksii* Correll)." Abstracts, Texas Plant Conservation Conference, Austin, TX.
47. Sarah Haller[†] & **William E. Rogers**. 2008. Shrub removal effects on an endangered Texas orchid, *Spiranthes parksii*. Abstracts, Ecological Society of America meeting, Milwaukee, WI.
46. Isaac W. Park, Saara J. DeWalt, Evan Siemann & **William E. Rogers**. 2008. Differing effects of freezing and winter conditions in South Carolina on four Chinese tallow populations from its native and invasive range. Abstracts, Ecological Society of America meeting, Milwaukee, WI.
45. Gabriela Sosa[†], **William E. Rogers**, Charles A. Taylor & Dirac Twidwell[†]. 2008. Using prescribed fires to control *Opuntia* cacti encroachment: Examining the effects of seasonality and herbivory. Abstracts, Texas Society of Ecological Restoration Annual Meeting, Fort Davis, TX.
44. **William E. Rogers**. 2008. Management strategies for restoring habitats degraded by an invasive alien tree species. Abstracts, Advances in Ecological Restoration: Alien Invasive Species Management Symposium. University of Victoria, British Columbia, Canada.

43. Dirac Twidwell[†], **William E. Rogers** & Urs Kreuter. 2007. Savanna restoration using fire and herbicide. Abstracts, Welder Wildlife Student Symposium, Sinton, TX.
42. Isaac W. Park, Saara J. DeWalt, Evan Siemann & **William E. Rogers**. 2007. Effects of overwinter conditions on Chinese Tallow germination along a coastal-inland gradient in South Carolina. Abstracts, Ecological Society of America meeting, San Jose, CA.
41. Isaac W. Park, Saara J. DeWalt, Evan Siemann & **William E. Rogers**. 2007. Effects of overwinter conditions on Chinese Tallow germination along a coastal-inland gradient in South Carolina. Abstracts, Ecological Society of America meeting, San Jose, CA.
40. Shanna Everett[†], **William E. Rogers** & Michael Morrison. 2007. Influence of feral hogs (*Sus scrofa*) on murid rodents in the Big Thicket. Abstracts, Big Thicket Science Conference, Beaumont, TX.
39. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann. 2006. Negative feedbacks influence the success of an invasive tree. Abstracts, Soils and Restoration Ecology Conference, DePaul University, Chicago, IL.
38. Saara DeWalt, Evan Siemann & **William E. Rogers**. 2006. Geographic distribution of genetic variation in introduced populations of Chinese tallow tree. Abstracts, Ecological Society of America meeting, Memphis, TN.
37. Somereet Nijjer[†], William E. Rogers & Evan Siemann. 2006. Soil feedbacks influence an invasive species in a temperate forest community. Abstracts, Ecological Society of America meeting, Memphis, TN.
36. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann. 2006. Impacts of fertilization on mycorrhizal allocation and effectiveness in Western Gulf Coast grasslands. Abstracts, Texas Academy of Sciences meeting, Beaumont, TX.
35. Jianwen Zou, **William E. Rogers** & Evan Siemann. 2006. Increased competitive ability and herbivore susceptibility in the invasive plant *Sapium sebiferum*. Abstracts, Association of Tropical Biology and Conservation, Kunming, China.
34. Evan Siemann, Saara J. DeWalt, **William E. Rogers** & Jianwen Zou. 2006. Effects of biotic interactions on Chinese Tallow Tree invasions. Abstracts, Association of Tropical Biology and Conservation, Kunming, China.
33. Saara J. DeWalt, Evan Siemann & **William E. Rogers**. 2005. Genetic reconstruction of the introduction of Chinese Tallow tree to the United States. Abstracts, South Eastern Ecology and Evolutionary Genetics (SEEPAGE) Meeting, Greenville, NC.
32. Maria Hartley, James B. Grace, Larry Allain, **William E. Rogers** & Evan Siemann. 2005

- Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation. Abstracts, USDA Interagency Invasive Species Investigators Meeting, Washington, DC.
31. Evan Siemann, **William E. Rogers** & Saara J. DeWalt. 2005 Rapid adaptation of an invasive plant and its insect herbivores. Abstracts, USDA Interagency Invasive Species Investigators Meeting, Washington, DC.
 30. **William E. Rogers**, Evan Siemann & James B. Grace. 2004. Chinese tallow tree invasions of Texas coastal prairie: effects of fire, fertility and herbivores. Abstracts, Ecological Society of America meeting, Portland, OR.
 29. Evan Siemann & **William E. Rogers**. 2004. Do genetic differences in growth and defense contribute to the success of an invasive plant species? - Intra- and inter-continental comparisons. Abstracts, Ecological Society of America meeting, Portland, OR.
 28. Candice Donahue[†], **William E. Rogers** & Evan Siemann. 2004. Restoring an invaded prairie: effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination. Abstracts, Ecological Society of America meeting, Portland, OR.
 27. Saara Dewalt, Evan Siemann & **William E. Rogers**. 2004. Genetic reconstruction of the introduction of Chinese tallow tree to the United States. Abstracts, Ecological Society of America meeting, Portland, OR.
 26. Maria Hartley[†], **William E. Rogers** & Evan Siemann. 2004. A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow (*Sapium sebiferum*). Abstracts, Ecological Society of America meeting, Portland, OR.
 25. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann. 2004. Mycorrhizal effects on the growth of five native tree species and the invasive *Sapium sebiferum*. Abstracts, Ecological Society of America meeting, Portland, OR.
 24. Candice Donahue[†], **William E. Rogers** & Evan Siemann. 2004. Restoring an invaded prairie: Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination. Abstracts, Texas Society for Ecological Restoration meeting, Clear Lake, TX.
 23. Candice Donahue[†], **William E. Rogers** & Evan Siemann. 2004. Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination: restoring an invaded prairie. Abstracts, National Society for Ecological Restoration meeting, Austin TX.
 22. Maria Hartley[†], **William E. Rogers** & Evan Siemann. A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow tree (*Sapium sebiferum*). Abstracts, Society for Ecological Restoration meeting, Austin, TX.

21. Evan Siemann & **William E. Rogers**. 2003. Large-scale experimental tests of recruitment limitation and Chinese tallow tree invasions. Abstracts, Big Thicket Science Conference, Beaumont, TX.
20. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann. 2003. Mycorrhizae's role in forest regeneration dynamics and the invasive success of *Sapium sebiferum* (Chinese Tallow) in the Big Thicket National Preserve. Abstracts, Big Thicket Science Conference, Beaumont, TX.
19. Maria Hartley[†], **William E. Rogers** & Evan Siemann. 2003. A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow tree (*Sapium sebiferum*). Abstracts, Big Thicket Science Conference, Beaumont, TX.
18. Bradley Butterfield*, **William E. Rogers** & Evan Siemann. 2003. Growth of Chinese tallow and four native species along a water gradient. Abstracts, Big Thicket Science Conference, Beaumont, TX.
17. **William E. Rogers** & Evan Siemann. 2002. Escaping the “to grow or defend” dilemma of plants: an explanation for the invasive success of an exotic tree species. Abstracts, Ecological Society of America meeting, Tucson, AZ.
16. Evan Siemann & **William E. Rogers**. 2002. Large-scale experimental tests of recruitment limitation and alien plant invasions. Abstracts, Ecological Society of America meeting, Tucson, AZ.
15. Richard A. Lankau*, **William E. Rogers** & Evan Siemann. 2002. Effects of light and flooding on *Sapium sebiferum* invasion into coastal prairies. Abstracts, Ecological Society of America meeting, Tucson, AZ.
14. Maria Hartley[†], Larry Allain, James B. Grace, **William E. Rogers** & Evan Siemann. 2002. Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation. Abstracts, Ecological Society of America meeting, Tucson, AZ.
13. **William E. Rogers** & Evan Siemann. 2001. Chinese tallow tree (*Sapium sebiferum*) invasion of native coastal prairie: interactive effects of herbivory and resources. Abstracts, Ecological Society of America meeting, Madison, WI.
12. Richard Lankau*, **William E. Rogers** & Evan Siemann. 2001. The role of native generalist herbivores in Chinese tallow tree (*Sapium sebiferum*) invasions into coastal prairie. Abstracts, Ecological Society of America meeting, Madison, WI.
11. **William E. Rogers**, Evan Siemann & James B. Grace. 2001. Fire, fertility, and herbivore effects on Chinese tallow (*Sapium sebiferum*) invasion of coastal prairie. Abstracts, Society for Conservation Biology meeting, Hilo, HI.

10. Evan Siemann & **William E. Rogers**. 2001. Evolution of increase competitive ability in an invasive tree species. Abstracts, Society for Conservation Biology meeting, Hilo, HI.
9. Stephanie Romanach, Eric Seabloom, **William E. Rogers** Guy Cameron & O. James Reichman. 2001. Burrow geometry of three species of pocket gophers: effects of habitat, body size and social behaviour. Abstracts, International Theriological Congress, Sun City, South Africa.
8. Evan Siemann & **William E. Rogers**. 2000. Does lack of enemies explain the success of an alien invader. Abstracts, Ecological Society of America meeting, Snowbird, UT.
7. **William E. Rogers** & Evan Siemann. 2000. Interactive effects of resources and herbivory on tree growth: experimental tests using a native and an invasive exotic species. Abstracts, Ecological Society of America meeting, Snowbird, UT.
6. **William E. Rogers** & David C. Hartnett. 1999. Vegetation responses to spatial patterns of disturbance. Abstracts, Ecological Society of America meeting, Spokane, WA.
5. **William E. Rogers** & Evan Siemann. 1999. Chinese tallow tree (*Sapium sebiferum*) invasion into grasslands: effects of resources. Abstracts, Big Thicket Science Conference, Beaumont, TX.
4. **William E. Rogers** & David C. Hartnett. 1997. The influence of pocket gopher (*Geomys bursarius*) disturbances on patterns of resources and vegetation in North American tallgrass prairie. Abstracts, British Ecological Society symposium, Wageningen, The Netherlands.
3. **William E. Rogers** & David C. Hartnett. 1997. The influence of pocket gopher disturbances on vegetation dynamics in tallgrass prairie. Abstracts, Soil Ecology Society, Manhattan, KS.
2. **William E. Rogers** & David C. Hartnett. 1997. Effects of pocket gopher disturbances on vegetation dynamics and recolonization mechanisms in tallgrass prairie. Abstracts, Ecological Society of America meeting, Albuquerque, NM.
1. **William E. Rogers**, Brad Elder, O. James Reichmann, Nancy Huntley, Richard Inouye & David C. Hartnett. 1993. The influence of animal-generated disturbances on patterns of resources and vegetation. Abstracts, LTER All-Scientists meeting, Estes Park, CO.

6.6 Professional Presentations

a) Summary Table of Type and Number of Professional Presentations Given

Type of Presentation	Number of talks given
Invited Talks	24
Symposia and Workshops	27

Professional Society Meetings & Scientific Colloquia	132
Total Number of Professional Presentations	183

b) Invited Talks (24)

2017. Texas AgriLife Extension Service, Texas A&M University System (Interactive Webinar providing Texas Department of Agriculture Integrated Pest Management/Pesticide Credit) “Understanding and Controlling Invasive Species.” Co-presented with Dr. Megan Clayton.
2017. Department of Ecosystem Science and Management, Texas A&M University, College Station. Invited Talk – “Management in Transition: Challenges and Approaches for Adapting to a Changing World”
2015. Gustavus Adolphus College, Saint Peter, MN - "Promoting ecosystem restoration by experimentally testing ecological theory: case studies using exotic invasions and endangered plants"
2014. Texas A&M Society for Ecological Restoration Student Association - "Hercules and the Hydra: Are mechanical, chemical, and/or grazing treatments of resprouting woody plants more effective when combined with fire?"
2014. North American Invasive Plant Short Course (Interactive Webinar) sponsored by University of Nebraska Lincoln – “Ecology and management of Chinese tallow in the southern United States.”
2013. College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, TX Invited Talk – “Ecological and societal resistance to prescribed extreme fire inhibit management efforts to restore degraded Texas rangelands: can we overcome these thresholds?”
2013. International Conference on Biological Invasions and Global Changes, College of Bioscience and Biotechnology, Shenyang Agricultural University, Shenyang, Liaoning Province, China. Invited Talk – “Experimental manipulations of Chinese tallow tree in its native and introduced ranges: fundamental insights from a classic case-study.”
2013. Department of Biology, Trinity University, San Antonio, TX. Invited Talk – “Using prescribed extreme fire to restore degraded rangelands: overcoming ecological and social resistance.”
2013. Department of Ecosystem Science and Management, Texas &M University. Invited Talk – “Overcoming ecological and social resistance to prescribed fire as a restoration strategy in degraded Texas Landscapes: New insights from experimental studies.”

2012. Department of Ecology & Evolutionary Biology, Rice University. Invited Talk – “Restoring degraded rangelands with prescribed extreme fire: strategies for overcoming ecological and social thresholds.”
2012. Quantitative Biology Seminar Series – Texas A&M University. Invited Talk – “Experimental comparisons of Chinese tallow tree growth and survival with and without native enemies.”
2011. Department of Geography, Texas A&M University – Invited Talk - “The causes and consequences of Chinese tallow tree invasions in North America.”
2010. Applied Biodiversity Science Program, Texas A&M University – Invited Seminar - “A decade of investigating Chinese tallow tree invasions in North America: what have we learned and where do we go from here?”
2009. University of Texas-San Antonio. Invited Talk - "Restoring habitats degraded by an invasive alien tree species: an experimental approach."
2008. University of Victoria, British Columbia, Canada. Management strategies for restoring habitats degraded by an invasive alien tree species. Invited speaker for Advances in Ecological Restoration: Alien Invasive Species Management Symposium.
2006. University of Texas - San Antonio, TX. “Ecological causes and evolutionary consequences of a non-native tree invasion.”
2005. Department of Rangeland Ecology & Management, Texas A & M University, College Station. “The causes and consequences of an exotic tree invasion and control strategies for habitat restoration.” *Faculty interview seminar*
2004. Department of Rangeland Ecology & Management Texas A & M University, College Station. “Ecological and evolutionary effects of enemies on an invasive tree species.”
2003. University of Richmond, Virginia. “Invasion biology of an alien tree: ecological and evolutionary influences of enemies.”
2003. University of Central Florida, Orlando. “Invasion biology of an alien tree: influence of enemies and conservation implications.”
2002. European Science Foundation/Center for Environmental Research, Halle, Germany. Workshop on Biological Invasions in Terrestrial Ecosystems: an Evolutionary Perspective. Invited Talk – “Post-introduction evolutionary increases in the competitive ability of an invasive tree are negated by herbivores from its native range.” (Presentation highlighted in Trends in Ecology and Evolution 17(12):545-546).

2002. Nanjing Agricultural University, China. “Post-introduction evolutionary change in Chinese tallow tree (*Sapium sebiferum*).”
2000. National Wetlands Research Center, Lafayette, LA. “Factors influencing Chinese tallow tree invasions: lessons from field studies and pot experiments.”
1998. Rice University, Houston, TX. “Disturbance effects on tallgrass prairie plant communities.”

c) Symposia & Workshops (27) (* undergraduate contribution; † graduate student contribution)

2019. Invited Talk - North American Forest Ecology Workshop Conference, Flagstaff, AZ. “Mechanisms of Persistence if Resprouting Shrubs and Grasses in a Semi-Arid Mesquite Savanna Following Extreme Fire.” Lodge, Alexandra G., Kathleen L. Kavanagh, Matthew B. Dickinson, Heath D. Starns, Morgan L. Treadwell, Doug R. Tolleson, Dirac Twidwell, Carissa L Wonkka, & **William E. Rogers**.
2014. Welder Wildlife Student Symposium, Sinton, TX. Invited Talk – “Effects of prescribed fire and grazing on woody encroachment and invasive grass abundance at the Welder Wildlife Refuge” Michele D. Clark[†] & **William E. Rogers**.
2014. Student Research Week-Ecological Integration Symposium, College Station, TX. Contributed Talk “Interactive effects of prescribed fire and grazing on invasive grass abundance and woody brush encroachment in a south Texas coastal prairie.” Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†], Terry L. Blankenship.
2012. Student Research Week-Ecological Integration Symposium, College Station, TX. Contributed Poster – “Soil Characterization of the Endangered Orchid *Spiranthes parksii* Habitat.” Nicole Ortiz^{*}, Martha Ariza[†], Fred Smeins & **William E. Rogers**.
2011. Welder Wildlife Student Symposium, Sinton, TX. Invited Talk – “Prairie and savanna restoration with controlled wildfire.” Dirac Twidwell[†] & **William E. Rogers**.
2011. Grasslands in a Global Context – Konza Prairie Anniversary Symposium, Manhattan, KS. Contributed Poster – “Reducing prickly pear encroachment with prescribed fire.” Gabriela Sosa[†], **William E. Rogers** & Charles A. Taylor, Jr.
2010. USDA-AFRI Regional CAP Planning Grant Meeting, Arlington, TX. Invited Talk - “Using prescribed extreme fire to restore degraded rangelands in the Edwards Plateau region.” **William E. Rogers**, Dirac Twidwell[†] & Charles A. Taylor, Jr.
2010. Student Research Week-Ecological Integration Symposium, College Station, TX. Contributed Poster - “Restoring a Degraded Rangeland: Examining the effects of

- seasonality and herbivory on *Opuntia* Cacti Management.” Gabriela Sosa[†], **William E. Rogers**, Dirac Twidwell[†] & Charles A. Taylor, Jr. ***Second Place Poster Winner***
2009. 10th Annual Ecological Integration Symposium. College Station, TX. Contributed Poster - "The effects of fire and herbivory on an endangered endemic orchid, Navasota Ladies Tresses (*Spiranthes parksii*)." Carissa L. Wonkka[†], **William E. Rogers**, & Dirac Twidwell[†]. ***Best graduate presentation - 1st place poster***
2009. 10th Annual Ecological Integration Symposium. College Station, TX. Contributed Poster - "Ecological and social resilience in fire dependent systems: a preview." Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr., & Urs P. Kreuter. ***Best graduate presentation - 2nd place poster***
2009. 12th Annual TAMU Student Research Week, College Station, TX. Contributed Talk - "Prescribed fire as a management tool to prevent *Opuntia* cacti encroachment." Gabriela Sosa[†], **William E. Rogers**, Dirac Twidwell[†] & Charles A. Taylor, Jr.
2007. Welder Wildlife Student Symposium, Sinton, TX. Contributed Talk - "Savanna restoration using fire and herbicide." Dirac Twidwell[†] **William E. Rogers** & Urs Kreuter.
2005. USDA Interagency Invasive Species Investigators Meeting, Washington, DC. Contributed Talk – "Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation." Maria Hartley, James B. Grace, Larry Allain, **William E. Rogers** & Evan Siemann.
2005. USDA Interagency Invasive Species Investigators Meeting, Washington, DC. Contributed Talk – "Rapid adaptation of an invasive plant and its insect herbivores." Evan Siemann, **William E. Rogers** & Saara J. DeWalt.
2004. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Poster – "Growth strategies and performance of five tree species along a water gradient. Bradley J. Butterfield^{*}, Evan Siemann & **William E. Rogers**. ***Winner of best natural sciences presentation and best overall undergraduate research presentation***
2004. Environmental Protection Agency - STAR Program Workshop, Research Park, North Carolina. Invited Talk – "Chinese tallow tree invasions into the endangered coastal prairie: causes and consequences." Evan Siemann, **William E. Rogers** & James B. Grace.
2002. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Talk – "The role of native generalist herbivores in Chinese tallow tree (*Sapium sebiferum*) invasions into coastal prairie." Richard Lankau^{*}, **William E. Rogers** & Evan Siemann. ***Winner of best undergraduate research presentation***
2001. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX.

- Contributed Poster – “Time and duration of heat exposure influences *Sapium sebiferum* seed germination.” Erin Loggins*, Ellen Wu*, **William E. Rogers** & Evan Siemann.
2001. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Poster – “Light and temperature effects on *Sapium sebiferum* seed germination.” Summer Nijjer*, **William E. Rogers** & Evan Siemann.
2000. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Poster – “Effects of light and nitrogen on Chinese tallow seedlings.” Cameron Naficy*, Richard Lankau*, **William E. Rogers** & Evan Siemann.
2000. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Poster – “Resource and herbivory effects on leaf morphology and physiology of Chinese tallow (*Sapium sebiferum*) tree.” Carrie Smith*, Summer Nijjer*, **William E. Rogers** & Evan Siemann.
2000. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. Contributed Poster – “Does allelopathy contribute to tallow tree invasions?” June Keay*, **William E. Rogers** & Evan Siemann.
1999. Keck Center Undergraduate Training Program, Baylor College of Medicine and Rice University, Houston, TX. Contributed Talk – Predator to prey species ratios: the roles of species richness and primary productivity. Richard Lankau*, Evan Siemann, **William E. Rogers**, Matthew A. Leibold & James H. Brown.
1998. Graduate Student Symposium, Division of Biology, Kansas State University. Contributed Talk – “Recolonization dynamics on soil disturbances in tallgrass prairie.” **William E. Rogers** & David C. Hartnett.
1997. LTER Workshop, Konza Prairie Natural Research Area. Contributed Talk – “Effects of soil disturbance patterns and fire on plant community dynamics.” **William E. Rogers** & David C. Hartnett.
1997. British Ecological Society symposium, Wageningen, The Netherlands. Contributed Poster – “The influence of pocket gopher (*Geomys bursarius*) disturbances on patterns of resources and vegetation in North American tallgrass prairie.” **William E. Rogers** & David C. Hartnett.
1993. LTER All-Scientists meeting, Estes Park, CO. Contributed Poster – “The influence of animal-generated disturbances on patterns of resources and vegetation.” **William E. Rogers**, Brad Elder, O. James Reichmann, Nancy Huntley, Richard Inouye & David C. Hartnett.

d) Professional Society Meetings & Scientific Colloquia (132)

2020. American Geophysical Union 101st Annual Meeting, Contributed Virtual Poster - "Soil carbon persists under prescribed fire and experimental drought in a semi-arid savanna." Krusec, Isabella, A. Peyton Smith, Garrett McKay, Matthew J. Peterson, Yamina Pressler, **William E. Rogers**, Kelly Brumbelow & Georgianne Moore.
2020. Soil Science Society of America Annual Meeting. Contributed Virtual Poster – “How does prescribed fire influence soil microbial composition and activity after an experimentally induced drought? Evidence for microbial resistance in a semi-arid savanna soil.” Peterson, Matthew J., Yamina Pressler, Charles A. Knight, Heather J. Hannusch, Lela Z. Culpepper, Alexandra G. Lodge, Heath D. Starns, Douglas R. Tolleson, **William E. Rogers** & and A. Peyton Smith. **Winner of Best Student Poster in the Forest, Range & Wildland Soils Division.”
2020. Texas Plant Protection Conference. Contributed Virtual Talk – “Plant Conservation in Temporally Variable, Spatially Heterogeneous Environments.” Wang, Hsiao-Hsuan , Carissa L Wonkka, Frederico Mestre, Diogo Alagador, Tomasz E. Koralewski, Michael L. Treglia, Andrzej Pękalski, William E. Grant, Fred Smeins & **William E. Rogers**.
2020. Ecological Society of America 103rd Annual Meeting, Salt Lake City, UT. Contributed Virtual Talk - “High-energy fires reduce *Juniperus virginiana* and *Prosopis glandulosa* densities in invaded grasslands.” Wonkka, Carissa L., Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, **William E. Rogers**, Heath D. Starns, Douglas R. Tolleson, Morgan L. Treadwell & Dirac Twidwell.
2020. Society for Range Management, 72nd Annual Meeting, Denver, CO. “Effects of fire intensity on resprouting vigor of mesquite (*Prosopis glandulosa*).” Starns, Heath D., Carissa L. Wonkka, Alexandra G. Lodge, Dirac Twidwell, Morgan L. Russell-Treadwell, Kathleen L. Kavanagh, Matthew B. Dickinson, Douglas R. Tolleson & **William E. Rogers**.
2019. American Geophysical Union 100th Annual Meeting, San Francisco, CA. Invited Poster - “An experimental assessment of semi-arid savanna resilience to interactions of drought, fire, and soil fertility.” **Rogers, William E.**, Heather J. Hannusch†, Alexandra G. Lodge, Douglas R. Tolleson & Heath D. Starns.
2019. Soil Science Society of America, American Society of Agronomy, Crop Science Society of America Joint Annual Meeting, San Antonio, TX. Contributed Poster - “Soil microbial and nematode responses to interactive drought and fire disturbances in a semi-arid savanna rangeland.” Pressler, Yamina, Heather J. Hannusch†, **William E. Rogers**, A. Peyton Smith
2019. Association for Fire Ecology 8th International Annual Meeting, Tucson, AZ. Contributed Poster - “Grass species morphology and phenology affect belowground bud banks and resprouting responses in burned semi-arid Texas savanna.” **Rogers, William E.**, Quinn A. Hiers†, Lela Z. Culpepper†, Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Morgan L. Treadwell, Heath D. Starns, Douglas R. Tolleson, Dirac Twidwell,

Carissa L. Wonkka.

2019. Association for Fire Ecology 8th International Annual Meeting, Tucson, AZ. Contributed Talk - "Effects of fire intensity on resprouting woody species." Starns, Heath D., Matthew B. Dickinson, Kathleen L. Kavanagh, Alexandra G. Lodge, Morgan L. Treadwell, Heath D. Starns, Douglas R. Tolleson, Dirac Twidwell, Carissa L. Wonkka, & **William E. Rogers**.
2019. Ecological Society of America 102nd Annual Meeting, Louisville, KY. Contributed Poster - "Ecological resilience in semi-arid savanna ecosystems: an experimental assessment of fire, drought, and soil fertility interactions." **Rogers, William E.**, Hannusch, Heather J., Alexandra G. Lodge, Doug R. Tolleson & Heath D. Starns.
2019. International Association of Wildland Fire Annual Fire Behavior & Fuels Conference, Albuquerque, NM. Contributed Talk - "Effects of fire intensity and abiotic factors on persistence of an encroaching woody species." Starns, Heath D., Carissa L Wonkka, Alexandra G. Lodge, Dirac Twidwell, Morgan L. Treadwell, Kathleen L. Kavanagh, Matthew B. Dickinson, Douglas R. Tolleson & **William E. Rogers**.
2019. Society for Range Management 71st Annual Meeting, Minneapolis, MN. Contributed Poster - "Soil Characteristics and Microbial Responses to Different Fire Intensities in a Woody Encroached Arid Savanna." Culpepper, Lela, **Rogers, William E.**, Payton G. Smith, Christine Morgan, Alexandra G. Lodge, Kathleen L. Kavanagh, Matthew B. Dickinson, Heath D. Starns, Morgan L. Treadwell, Doug R. Tolleson, Dirac Twidwell, Carissa L Wonkka.
2019. Society for Range Management 71st Annual Meeting, Minneapolis, MN. Contributed Talk - . "Effects of Fire, Drought, and Soil Fertility on Herbaceous Communities in a Semi-Arid Savanna." Hannusch, Heather J., **William E. Rogers**, Alexandra G. Lodge, Doug R. Tolleson & Heath D. Starns.
2018. Texas Plant Conservation Conference, Botanical Research Institute of Texas, Fort Worth Botanic Garden, Fort Worth, TX. Contributed Talk - Synergistic Effects of Habitat Fragmentation and Climate Change on Conservation of an Endangered Orchid." Hsiao-Hsuan Wang, Frederico Mestre, Carissa Wonkka, Michael Treglia, William E. Grant, Fred Smeins, **William E. Rogers**.
2018. Texas Chapter of the Wildlife Society Meeting, Annual Meeting, Dallas, TX. Contributed Poster - "Rapidly increasing invasion by Chinese tallow in southeast United States." Heldman*, Samantha M, Miranda Peterson*, Christopher Vasquez*, Zakary Derouen*, Hsiao-Hsuan "Rose" Wang, William E. Grant & **William E. Rogers**. ***3rd Place for Best Undergraduate Poster Presentation***
2017. Texas Section of the Society for Range Management, San Angelo, Texas. Contributed Poster – "Interactive effects of fire, nutrient, and moisture manipulation on vegetative communities

- in a formerly woody-encroached, arid savanna ecosystem.” Heather J. Hannusch & **William E. Rogers**
2017. Grassland Society of Southern Africa 52nd Annual Congress, Hoedspruit, South Africa. Contributed Talk – The importance of ecosystem state factors to the hydrologic responses of woodlands to land management activities.” Jason B. West, April Mattox, Carissa L. Wonkka, Dirac Twidwell, **William E. Rogers**.
2017. Grassland Society of Southern Africa 52nd Annual Congress, Hoedspruit, South Africa. Contributed Talk – “Savanna Long-term Research and Education Initiative in the Southern Great Plains.” Bradford P. Wilcox, Samuel D. Fuhlendorf, Steven R. Archer, Thomas W. Boutton, Jason B. West, Perry S. Barboza, **William E. Rogers**, Andrew Birt, X. Ben Wu, Urs P. Kreuter, Kathleen Kavanagh, Douglas R. Tolleson & John W. Walker.
2017. Grassland Society of Southern Africa 52nd Annual Congress, Hoedspruit, South Africa. Contributed Talk – “Hercules and the Hydra Revisited: combining traditional management efforts with fire to control resprouting woody plant encroachment and restore savanna ecosystems.” **William E. Rogers**, Carissa L. Wonkka & Dirac Twidwell.
2017. Ecological Society of America 102nd Annual Meeting, Portland, Oregon. Contributed Poster – “Species distribution model for management: influencing factors and implications for mitigation of an invasive grass in forestlands of Tennessee.” Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**.
2017. Texas Chapter of the Wildlife Society: Wildlife Conservation and Management on Private Lands, 53rd Annual Meeting of the San Antonio, TX. Contributed Poster - “Tracking its roots: Expansion by Japanese stiltgrass in the forestlands of Tennessee.” Culpepper*, Lela Z., William E. Grant, **William E. Rogers** & Hsiao-Hsuan Wang.
2017. The International Biogeography Society 8th Biennial Conference, Tucson, Arizona. Contributed Poster - “Recent range expansions by Japanese stiltgrass (*Microstegium vimineum* (Trin.) A.Campus) in the forestlands of Tennessee. Culpepper*, Lela Z., Hsiao-Hsuan Wang, William E. Grant & **William E. Rogers**.
2016. Ecological Society of America 101st Annual Meeting, Fort Lauderdale, Florida. Contributed Late-breaking Poster - “Evaluation of frequencies of prescribed burning to control plant invasions on coastal prairie.” Richardson*, Andrew, Hsiao-Hsuan Wang, William E. Grant, Masami Fujiwara & **William E. Rogers**.
2016. Texas Plant Conservation Conference, Biennial Meeting, Fort Worth, Texas. Contributed Talk – “Edaphic determinants of the distribution of an endangered terrestrial orchid: using Maxent as an investigative tool for rare plant conservation.” Hsiao-Hsuan, Wang, Carissa L. Wonkka[†], Michael L. Treglia, William E. Grant, Fred E. Smeins & **William E. Rogers**.

2016. Texas Plant Conservation Conference, Biennial Meeting, Fort Worth, Texas. Contributed Talk – “Vertebrate and invertebrate herbivory on the federally endangered *Spiranthes parksii* Correll and sympatric congener *Spiranthes cernua*.” Deseri D. Nally[†], Fred E. Smeins, **William E. Rogers**, Micky Eubanks & Richard K. Bruton[†].
2016. Society for Range Management 69th Annual Meeting, Corpus Christi, Texas. Contributed Talk - “Hercules and the Hydra Hypothesis: Is rangeland restoration more effective when combined with fire?” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Michele D. Clark[†].
2015. Society for Ecological Restoration, Texas Chapter 20th Annual Meeting, San Antonio, Texas. Contributed Poster – “Operationalizing resilience in a shrub-encroached semi-arid rangeland ecosystem: A new opportunity for ecological restoration?” William E. Rogers, Carissa L. Wonkka[†], Dirac Twidwell[†] & Jason B. West. 2015.
2015. Ecological Society of America 100th Annual Meeting, Baltimore, MD. Contributed Late-breaking Poster - “Operationalizing resilience in ecological restoration: A case study in a shrub-encroached semi-arid rangeland ecosystem.” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Jason B. West.
2015. Annual Meetings of the Association of American Geographers, Chicago, IL. Contributed Poster – “Can Chinese tallow distribution be reduced to certification levels within Greens Bayou Wetlands Mitigation Bank?” Landolt^{*}, Kyle L., Robert A. Washington-Allen, Alfredo Delgado^{*}, Cameron Brademan[†], Maggie Wann^{*}, Deseri D. Nally^{*†}, Richard Bruton^{*†} & **William E. Rogers**.
2015. Society for Rangeland Ecology 68th Annual Meeting, Sacramento, CA. Contributed Talk – “Spatial resilience in a semi-arid shrubland: implications for operationalizing resilience in ecological restoration.” Wonkka[†], Carissa L., Dirac Twidwell[†], Jason B. West & **William E. Rogers**.
2014. Texas Plant Conservation Conference, Biennial Meeting, Austin, Texas. Contributed Talk – “Can fire and herbivory be manipulated to restore endangered terrestrial orchid populations in a Texas post oak savanna?” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], Fred E. Smeins & Martha C. Ariza[†].
2014. Texas Plant Conservation Conference, Biennial Meeting, Austin, Texas. Contributed Talk – “Biology/ecology of navasota ladies'-tresses (*Spiranthes parksii*): current state of knowledge.” Fred E. Smeins, **William E. Rogers**, Martha C. Ariza[†], Carissa L. Wonkka[†] & Richard K. Bruton[†].
2014. Texas Plant Conservation Conference, Biennial Meeting, Austin, Texas. Contributed Talk – “The effects of woody plant management on habitat conditions and plant

- demography of the endangered orchid, *Spiranthes parksii* Correll.” Richard K. Bruton[†], Fred E. Smeins, Martha C. Ariza[†], **William E. Rogers** & Alfredo Delgado.
2014. Texas Plant Conservation Conference, Biennial Meeting, Austin, Texas. Contributed Talk – “Determinants and likelihood of occurrence of an endangered endemic orchid (*Spiranthes parksii* (Correll)) in central Texas.” Hsiao-Hsuan, Wang, Carissa L. Wonkka[†], Michael L. Treglia, William E. Grant, Fred E. Smeins & **William E. Rogers**.
2014. Texas Plant Conservation Conference, Biennial Meeting, Austin, Texas. Contributed Talk – “Mycorrhizal fungi of *Spiranthes parksii*: specificity and effects germination.” Martha C. Ariza[†], **William E. Rogers**, Fred E. Smeins & Heath Mills.
2014. International Association for Vegetation Science 57th Annual Meeting, Perth, Australia. Contributed Talk - “Hercules and the Hydra: Are mechanical, chemical, and/or grazing treatments of resprouting woody plants more effective when combined with fire?” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Michele D. Clark[†].
2014. Ecological Society of America 99th Annual Meeting, Sacramento, CA. Contributed Talk - "Can experimental manipulations of fire and herbivory be utilized to restore populations of an endangered terrestrial orchid in Texas post oak savannas?" **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], Fred E. Smeins & Martha C. Ariza[†].
2014. Ecological Society of America 99th Annual Meeting, Sacramento, CA. Contributed Talk - “Interactive effects of prescribed fire and grazing on invasive grass abundance and woody brush encroachment in a south Texas coastal prairie.” Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†] & Terry L. Blankenship.
2014. Ecological Society of America 99th Annual Meeting, Sacramento, CA. Contributed Talk -“Legal barriers to effective ecosystem management: Exploring linkages between liability, regulations, and prescribed fire.” Carissa L. Wonkka[†], **William E. Rogers** & Urs P. Kreuter.
2014. Ecological Society of America 99th Annual Meeting, Sacramento, CA. Contributed Talk - “Restoration of an urban wetland mitigation bank from invasion by Chinese Tallow.” Robert A. Washington-Allen, Alfredo Delgado, Kyle Landolt^{*}, Cameron G. Brademan[†], Maggie Wann, Deseri D. Nally[†], Richard Bruton[†], **William E. Rogers**, Rebecca Martinez & Cathy Rogers-McCoy.
2014. Society of Range Management Annual Meeting, Orlando, FL. Contributed Talk - “Manipulating prolonged drought conditions on a prickly pear encroached rangeland.” Gabriela Sosa[†], **William E. Rogers** & Charles A. Taylor, Jr.
2013. Society for Ecological Restoration International, 5th World Conference, Madison, WI. “Moving toward a more dynamic platform for restoration and the need to consider

- extreme disturbance events.” Dirac Twidwell[†], Samuel D. Fuhlendorf, Brady Allred & **William E. Rogers**.
2013. Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX. Contributed Talk – “Ecological and societal resistance to prescribed extreme fire inhibit management efforts to restore degraded Texas rangelands: can we overcome these constraints?” **William E. Rogers**, Dirac Twidwell[†], Carissa L. Wonkka[†], Urs P. Kreuter & Charles A. Taylor, Jr.
2013. Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX. Contributed Talk – “Drought-induced woody plant mortality and community composition shifts in an encroached Texas savanna: comparing the 1950s and the 2000s.” Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**.
2013. Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX. Contributed Poster – “Interactive effects of prescribed fire and grazing on woody encroachment and invasive grass abundance in a southeastern Texas coastal prairie.” Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†], & Terry Blankenship.
2013. Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX. Contributed Poster – “Insect herbivores effect federally endangered Navasota ladies'-tresses (*Spiranthes parksii*).” Deseri Nally[†], Fred E. Smeins, **William E. Rogers**, Micky Eubanks, Richard Bruton[†], Martha C. Ariza[†] & Carissa L. Wonkka[†]. ***Winner of Best Graduate Student Poster***
2013. Society for Ecological Restoration, Texas Chapter and Texas Riparian Association Joint Conference, Junction, TX. Contributed Poster – “Life history of the endangered poppy, *Argemone pleiacantha* subsp. *pinnatisecta*, along an elevational gradient.” Nicole Ortiz[†], **William E. Rogers**, Fred E. Smeins & Diana Doan-Crider.
2013. Ecological Society of America 98th Annual Meeting, Minneapolis, MN. Contributed Talk – “Can novel combinations of prescribed extreme fire and herbicide be used to overcome resprouting woody plant resilience and restore degraded rangelands in the southern Great Plains?” **William E. Rogers**, Dirac Twidwell[†], Carissa L. Wonkka[†], Urs P. Kreuter & Charles A. Taylor, Jr.
2013. Ecological Society of America 98th Annual Meeting, Minneapolis, MN. Contributed Talk - “Patch-specific woody plant mortality following severe drought in a semi-arid Texas savanna.” Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**.
2013. International Association of Vegetation Science 56th Annual Meeting, Tartu, Estonia.

- Contributed Poster - “Dynamics of an endangered terrestrial orchid in response to experimental manipulations of fire and herbivory in a Texas post oak savanna.” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Fred E. Smeins.
2013. International Association of Vegetation Science 56th Annual Meeting, Tartu, Estonia. Contributed Poster – “Topoedaphic factors and land management drive patchy drought-induced woody mortality in an encroached semiarid savanna: comparing the 1950s to the 2000s.” Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**.
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Poster - “Effects of fire and herbivory on an endangered terrestrial orchid in a Texas post oak savanna.” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†] & Fred E. Smeins.
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Poster - “An experimental assessment of different restoration practices in a brush encroached south Texas rangeland.” Carissa L. Wonkka[†], **William E. Rogers** & Dirac Twidwell[†].
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Poster – “The interactive effects of prescribed fire and ungulate grazing on bankrupt bush (*Seriphium plumosum*) in a South African highveld grassland.” Michele D. Clark[†], **William E. Rogers**, Carissa L. Wonkka[†], Deseri Nally*, Richard W. Teague, Urs P. Kreuter & James Muir.
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Talk - “Exceptional drought events cause patch-level patterns of woody dieback in semiarid Texas: comparing the 2000s to the 1950s.” Carissa L. Wonkka[†], Dirac Twidwell[†], Charles A. Taylor Jr. Chris B. Zou, Jeremiah J. Twidwell & **William E. Rogers**.
*** First Place PhD Oral Presentation Winner ***
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Talk - “Manipulating prolonged drought conditions on a prickly pear encroached rangeland.” Gabriela Sosa[†], **William E. Rogers** & Charles A. Taylor, Jr.
2013. Society of Range Management Annual Meeting, Oklahoma City, OK. Contributed Talk – “Coupling fire physics and fire ecology to quantify state transitions and guide restoration actions.” Dirac Twidwell[†], Sam Fuhlendorf, **William E. Rogers** & Charles A. Taylor, Jr.
2012. Ecological Society of America 97th Annual Meeting, Portland, OR. Contributed Talk - “Exploring population level herbivore effects on an endangered terrestrial orchid.” Carissa L. Wonkka[†], **William E. Rogers**, Dirac Twidwell[†], Fred E. Smeins & Masami Fujiwara.
2012. Ecological Society of America 97th Annual Meeting, Portland, OR. Contributed Poster -

- “Effects of fire and herbivory on an endangered terrestrial orchid in a Texas post oak savanna.” **William E. Rogers**, Carissa L. Wonkka[†], Dirac Twidwell[†], & Fred E. Smeins.
2012. Ecological Society of America 97th Annual Meeting, Portland, OR. Contributed Poster - “*In situ* seed germination and mycorrhizal associations of the endangered terrestrial orchid *Spiranthes parksii*.” Martha C. Ariza[†], **William E. Rogers**, Fred E. Smeins & J. Ryan Hammons[†].
2011. Ecological Society of America 96th Annual Meeting, Austin, TX. Invited Talk – “Applying prescribed extreme fire within a resilience framework to help stakeholders adapt to changing rangeland environments.” Dirac Twidwell[†], **William E. Rogers** & Charles A. Taylor, Jr.
2011. Ecological Society of America 96th Annual Meeting, Austin, TX. Contributed Poster – “Using prescribed extreme fire for coastal prairie restoration: effects on species richness and invasion.” **William E. Rogers**, Dirac Twidwell[†], Elizabeth A. McMahon*, Bryce R. Thomas[†], Urs P. Kreuter & Terry L. Blankenship.
2011. Ecological Society of America 96th Annual Meeting, Austin, TX. Contributed Talk - “Predicted range expansion of Chinese tallow tree (*Triadica sebifera*) in forestlands of the southern United States.” Hsiaohsuan Wang, William E. Grant, Todd M. Swannack, Jianbang Gan, **William E. Rogers**, Tomasz E. Koralewski, James H. Miller & John W. Taylor, Jr.
2011. Ecological Society of America 96th Annual Meeting, Austin, TX. Contributed Talk – Fire-induced divergence of the lifecycle of an endangered terrestrial orchid (*Spiranthes parksii* Correll). Carissa L. Wonkka[†], **William E. Rogers**, Fred E. Smeins & Dirac Twidwell[†].
2011. West Gulf Coastal Plain and Big Thicket Science Conference, Nacogdoches, TX. Contributed Talk - “Restoring west Gulf coastal prairies using prescribed extreme fires.” **William E. Rogers**, Dirac Twidwell[†] & Terry L. Blankenship.
2011. West Gulf Coastal Plain and Big Thicket Science Conference, Nacogdoches, TX. Contributed Talk - “Alien fire ant and native harvester ant responses to coastal prairie restoration with fire.” Dirac Twidwell[†], Jennifer M. Meza*, C. Jack Turney* & **William E. Rogers**.
2011. Society of Range Management Annual Meeting, Billings, MT. Contributed Talk - “Moving Beyond the Myths and Traditions of Fire Behavior in Rangelands.” Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. & David M. Engle.
2011. Society of Range Management Annual Meeting, Billings, MT. Contributed Talk - “Conquering Social and Ecological Fire Thresholds to Empower and Equip Ranchers to Manage Rangelands.” Charles A. Taylor, Jr., Dirac Twidwell[†] & **William E. Rogers**.
2011. Society of Range Management Annual Meeting, Billings, MT. Contributed Talk -

- “Herbivore effects on life-stage transitions of an endangered orchid, *Spiranthes parksii* Correll.” Carissa L. Wonkka[†], **William E. Rogers**, Fred E. Smeins & Dirac Twidwell[†].
2010. Ecological Society of America 95th Annual Meeting, Pittsburgh, PA, “Experimental manipulation of biotic and abiotic factors to determine their implications for conservation of an endangered endemic orchid (*Spiranthes parksii*)” Carissa L. Wonkka[†], **William E. Rogers**, Dirac Twidwell[†], Sarah J. Haller[†], Fred E. Smeins & J. Ryan Hammons[†].
2010. Ecological Society of America 95th Annual Meeting, Pittsburgh, PA. Contributed Talk - “Using prescribed extreme fire to collapse and restore ecological systems: the benefits of quantifying resilience.” Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, & Charles A. Taylor, Jr.
2010. Ecological Society of America 95th Annual Meeting, Pittsburgh, PA. Contributed Talk - “Restoring shrub invaded rangelands with prescribed extreme fire.” **William E. Rogers**, Dirac Twidwell[†], Gabriela Sosa[†], & Charles A. Taylor, Jr.
2010. Ecological Society of America 95th Annual Meeting, Pittsburgh, PA. Contributed Poster - “PhD-instructed undergraduate research: more than an undergraduate education and doctoral dissertation.” Dirac Twidwell[†], **William E. Rogers**, & Steven G. Whisenant
2010. Society of Range Management-Weed Science Society of America Joint Meeting, Denver, CO. Invited Talk - “Prescribed extreme fire for restoring Texas rangelands degraded by persistent invasive plants.” **William E. Rogers**, Dirac Twidwell[†], Gabriela Sosa[†], & Charles A. Taylor.
2009. Society of Range Management meeting, Albuquerque, NM. Contributed Poster - “Ecological and social resilience in fire dependent systems: a preview.” Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. & Urs P. Kreuter.
2009. Society of Range Management meeting, Albuquerque, NM. Contributed Talk - “Prescribed fire impacts on red imported fire ant (*Solenopsis invicta*) densities across three ecoregions in Texas.” Charles J. Turney*, Dirac Twidwell[†], & **William E. Rogers**.
2009. Society of Range Management meeting, Albuquerque, NM. Contributed Talk - “Ecological, economic, and social dimensions of using summer fire to restore ecosystems in the southern plains of the US. Urs Kreuter, W. Richard Teague, **William E. Rogers**, C. A. Taylor Jr. & D. Lynn Drawe.
2009. Ecological Society of America 94th Annual Meeting, Albuquerque, New Mexico. Contributed Poster - “Evaluating cross-scale resilience of an invaded savanna using field-based pulsed lidar.” Alfredo Delgado*, Dirac Twidwell[†], Robert A. Washington-Allen, **William E. Rogers**, & Sorin C. Popescu.

2009. Ecological Society of America 94th Annual Meeting, Albuquerque, New Mexico. Contributed Poster - "Interactive effects of soil resources and light availability on the establishment and growth of an endangered orchid, Navasota Ladies' Tresses (*Spiranthes parksii*)" Sarah J. Haller[†], **William E. Rogers**, Fred E. Smeins, & Carissa L. Wonkka[†].
2009. Ecological Society of America 94th Annual Meeting, Albuquerque, New Mexico. Contributed Talk - "Predicting the cyclic collapse between grassland and juniper woodland." Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor Jr., & Urs P. Kreuter.
2009. Ecological Society of America 94th Annual Meeting, Albuquerque, New Mexico. Contributed Poster – "Small threats, big challenges: Using prescribed fire to locate and manage for fire ant (*Solenopsis invicta*) invasion in Texas." Charles J. Turney*, Dirac Twidwell[†], & **William E. Rogers**.
2009. Ecological Society of America 94th Annual Meeting, Albuquerque, New Mexico. Contributed Talk - "The effects of fire and herbivory on an endangered endemic orchid, Navasota ladies tresses (*Spiranthes parksii*)." Carissa L. Wonkka[†], **William E. Rogers**, & Dirac Twidwell[†].
2009. Society for Ecological Restoration 19th International Conference, Perth, Australia. Contributed Talk - "Using extreme fire to restore ecosystems in the southern plains: an ecological, economic and social evaluation." Urs P. Kreuter, W. Richard Teague, J. Richard Conner, **William E. Rogers**, & Charles Taylor, Jr.
2009. Society for Ecological Restoration 19th International Conference, Perth, Australia. Contributed Talk - "Overcoming ecological and social resilience to restore fire dependent systems." Dirac Twidwell[†], **William E. Rogers**, Samuel D. Fuhlendorf, Charles A. Taylor, Jr. & Urs P. Kreuter. ***Awarded Best Student Oral Presentation of the Conference***
2009. Society for Ecological Restoration 19th International Conference, Perth, Australia. Contributed Talk – "Restoring a degraded rangeland: using fire and herbivory to control *Opuntia* cacti encroachment." Gabriela Sosa[†], **William E. Rogers**, Charles A. Taylor, Jr., & Dirac Twidwell[†].
2009. Society for Ecological Restoration 19th International Conference, Perth, Australia. Contributed Poster - "Woody shrub encroachment limits the establishment of an endangered orchid, Navasota Ladies' Tresses (*Spiranthes parksii*): restoration strategies for Texas post oak savanna." **William E. Rogers**, Sarah Haller[†], Ryan Hammons[†], Fred E. Smeins, & Carissa L. Wonkka[†].
2009. American Geophysical Union Fall meeting, San Francisco, CA. Contributed Talk - "Undergraduate Research Experiences in Support of Dryland Monitoring: Field and

- Satellite Remote Sensing of Change in Savanna Structure, Biomass, and Carbon after Prescribed Fires." Robert A. Washington-Allen, Dirac Twidwell[†], Vincent P. Mendieta, Alfredo Delgado^{*}, Brett Redman, Winston Trollope, Lynne Trollope, Navashni Govender, Izak Smit, Sorin Popescu, Chris de Bruno Austin, **William E. Rogers**, & Matt C. Reeves.
2009. Silvilaser - the 9th international conference on lidar applications for assessing forest ecosystems, College Station, TX. Contributed Talk - "Undergraduate Research Experiences in Support of Dryland Monitoring: Field and Satellite Remote Sensing of Change in Savanna Structure, Biomass, and Carbon after Prescribed Fires." Robert A. Washington-Allen, Dirac Twidwell[†], Vincent P. Mendieta, Alfredo Delgado^{*}, Brett Redman, Winston Trollope, Lynne Trollope, Navashni Govender, Izak Smit, Sorin Popescu, Chris de Bruno Austin, **William E. Rogers**, and Matt C. Reeves.
2009. Texas Plant Conservation Conference, Austin, TX. Contributed Talk - "In situ seed germination and mycorrhizal associations of the endangered orchid *Spiranthes parksii*." Martha C. Ariza[†], J. Ryan Hammons[†], **William E. Rogers**, & Fred E. Smeins.
2009. Texas Plant Conservation Conference, Austin, TX. Contributed Talk - "Demographics, life history, and transplantation methods for an endangered orchid endemic to Texas, Navasota ladies' tresses (*Spiranthes parksii* Correll)." J. Ryan Hammons[†], Fred E. Smeins, & **William E. Rogers**.
2008. Ecological Society of America 93rd Annual Meeting, Milwaukee, WI. Contributed Poster – "Shrub removal effects on an endangered Texas orchid, *Spiranthes parksii*." Sarah J. Haller[†] & **William E. Rogers**.
2008. Ecological Society of America 93rd Annual Meeting, Milwaukee, WI. Contributed Talk – "Differing effects of freezing and winter conditions in South Carolina on four Chinese tallow populations from its native and invasive range." Isaac W. Park, Saara J. DeWalt, Evan Siemann & **William E. Rogers**.
2008. Texas Society of Ecological Restoration Annual Meeting, Fort Davis, TX. Contributed Talk – "Using prescribed fires to control *Opuntia* cacti encroachment: Examining the effects of seasonality and herbivory." Gabriela Sosa[†], **William E. Rogers**, Charles A. Taylor & Dirac Twidwell[†].
2007. Ecological Society of America 92nd Annual Meeting, San Jose, CA. Contributed Poster – "Effects of overwinter conditions on Chinese Tallow germination along a coastal-inland gradient in South Carolina." Isaac W. Park, Saara J. DeWalt, Evan Siemann & **William E. Rogers**.
2007. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – "Influence of feral hogs (*Sus scrofa*) on murid rodents in the Big Thicket." Shoshanna Everett[†], **William E. Rogers**

& Michael Morrison.

2006. Texas Academy of Sciences meeting, Beaumont, TX. Contributed Talk – Impacts of fertilization on mycorrhizal allocation and effectiveness in Western Gulf Coast grasslands. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann.
2006. Association of Tropical Biology and Conservation, Kunming, China. Contributed Talk – Increased competitive ability and herbivore susceptibility in the invasive plant *Sapium sebiferum*. Jianwen Zou, **William E. Rogers** & Evan Siemann.
2006. Association of Tropical Biology and Conservation, Kunming, China. Contributed Talk – Effects of biotic interactions on Chinese Tallow Tree invasions. Evan Siemann, Saara J. DeWalt, **William E. Rogers** & Jianwen Zou.
2006. Soils and Restoration Ecology Conference, DePaul University, Chicago, IL. Contributed Poster – “Negative feedbacks influence the success of an invasive tree.” Somereet Nijjer[†], **William E. Rogers** & Evan Siemann.
2006. Ecological Society of America 91st Annual Meeting, Memphis, TN. Contributed Talk – “Geographic distribution of genetic variation in introduced populations of Chinese tallow tree.” Saara J. DeWalt, Evan Siemann & **William E. Rogers**.
2006. Ecological Society of America 91st Annual Meeting, Memphis, TN. Soil feedbacks influence an invasive species in a temperate forest community. Somereet Nijjer[†], **William E. Rogers** & Evan Siemann.
2005. South Eastern Ecology and Evolutionary Genetics (SEEPAGE) Meeting, Greenville, NC. Genetic reconstruction of the introduction of Chinese Tallow tree to the United States. Saara J. DeWalt, Evan Siemann & **William E. Rogers**.
2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Talk – “Chinese tallow tree invasions of Texas coastal prairie: effects of fire, fertility and herbivores.” **William E. Rogers**, Evan Siemann & James B. Grace.
2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Talk – “Do genetic differences in growth and defense contribute to the success of an invasive plant species: Intra- and inter-continental comparisons.” Evan Siemann & **William E. Rogers** (Highlighted in *Science* 305:1100-1101).
2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Poster – “Restoring an invaded prairie: effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination.” Candice Donahue[†], **William E. Rogers** & Evan Siemann.
2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Poster –

“Genetic reconstruction of the introduction of Chinese tallow tree to the United States.”
Saara J. Dewalt, Evan Siemann & **William E. Rogers**.

2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Poster – “A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow (*Sapium sebiferum*).” Maria K. Hartley[†], **William E. Rogers** & Evan Siemann.
2004. Ecological Society of America 89th Annual Meeting, Portland, OR. Contributed Poster - “Mycorrhizal effects on the growth of five native tree species and the invasive *Sapium sebiferum*.” Somereet Nijjer[†], **William E. Rogers** & Evan Siemann.
2004. Texas Society for Ecological Restoration meeting, Clear Lake, TX. Contributed Talk - “Restoring an invaded prairie: Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination.” Candice Donahue[†], **William E. Rogers** & Evan Siemann.
2003. National Society for Ecological Restoration meeting, Austin, TX. Contributed Poster - “Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination: restoring an invaded prairie.” Candice Donahue[†], **William E. Rogers** & Evan Siemann.
2003. Society for Ecological Restoration meeting, Austin, TX. Contributed Talk – “A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow tree (*Sapium sebiferum*).” Maria Hartley[†], **William E. Rogers** & Evan Siemann.
2003. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – “Large-scale experimental tests of recruitment limitation and Chinese tallow tree invasions.” Evan Siemann & **William E. Rogers**.
2003. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – “Mycorrhizae's role in forest regeneration dynamics and the invasive success of *Sapium sebiferum* (Chinese Tallow) in the Big Thicket National Preserve.” Somerett Nijjer, **William E. Rogers** & Evan Siemann
2003. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – “A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow tree (*Sapium sebiferum*).” Maria Hartley[†], **William E. Rogers** & Evan Siemann.
2003. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – “Growth of Chinese tallow and four native species along a water gradient.” Bradley Butterfield*, **William E. Rogers** & Evan Siemann.
2002. Ecological Society of America Annual Meeting, Tucson, AZ. Contributed Talk - “Escaping the “to grow or defend” dilemma of plants: an explanation for the invasive success of an exotic tree species.” **William E. Rogers** & Evan Siemann. (highlighted in Science Daily, Environmental News Service, The Guardian, Houston Business News).

2002. Ecological Society of America Annual Meeting, Tucson, AZ. Contributed Talk - "Large-scale experimental tests of recruitment limitation and alien plant invasions." Evan Siemann & **William E. Rogers**.
2002. Ecological Society of America Annual Meeting, Tucson, AZ. Contributed Poster – "Effects of light and flooding on *Sapium sebiferum* invasion into coastal prairies." Richard A. Lankau*, **William E. Rogers** & Evan Siemann.
2002. Ecological Society of America Annual Meeting, Tucson, AZ. Contributed Talk - "Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation." Maria Hartley†, Larry Allain, James B. Grace, **William E. Rogers** & Evan Siemann.
2001. Ecological Society of America Annual Meeting, Madison, WI. Contributed Talk - "Chinese tallow tree (*Sapium sebiferum*) invasion of native coastal prairie: interactive effects of herbivory and resources." **William E. Rogers** & Evan Siemann.
2001. Ecological Society of America Annual Meeting, Madison, WI. Contributed Talk – "The role of native generalist herbivores in Chinese tallow tree (*Sapium sebiferum*) invasions into coastal prairie." Richard Lankau*, **William E. Rogers** & Evan Siemann.
2001. Society for Conservation Biology meeting, Hilo, HI. Contributed Talk – "Fire, fertility, and herbivore effects on Chinese tallow (*Sapium sebiferum*) invasion of coastal prairie." **William E. Rogers**, Evan Siemann & James B. Grace.
2001. Society for Conservation Biology meeting, Hilo, HI. Contributed Talk – "Evolution of increase competitive ability in an invasive tree species." Evan Siemann & **William E. Rogers**.
2001. International Theriological Congress, Sun City, South Africa. Contributed Talk – "Burrow geometry of three species of pocket gophers: effects of habitat, body size and social behaviour." Stephanie Romanach, O. James Reichman, Eric Seabloom, **William E. Rogers** & Guy Cameron.
2000. Ecological Society of America Annual Meeting, Snowbird, UT. Contributed Talk – "Interactive effects of resources and herbivory on tree growth: experimental tests using a native and an invasive exotic species." **William E. Rogers** & Evan Siemann.
2000. Ecological Society of America Annual Meeting, Snowbird, UT. Contributed Talk – "Does lack of enemies explain the success of an alien invader." Evan Siemann & **William E. Rogers**.
1999. Keck Center Undergraduate Research Training Program, Baylor College of Medicine, Houston, TX. Contributed Talk – "Predator to prey species ratios: the roles of species richness and primary productivity." Richard Lankau*, Evan Siemann, **William E. Rogers**,

Matthew A. Leibold and James H. Brown.

- 1999. Ecological Society of America Annual Meeting, Spokane, WA. Contributed Talk - "Vegetation responses to spatial patterns of disturbance." **William E. Rogers** & David C. Hartnett.
- 1999. Big Thicket Science Conference, Beaumont, TX. Contributed Talk – "Chinese tallow tree (*Sapium sebiferum*) invasion into grasslands: the effects of resources." **William E. Rogers** & Evan Siemann.
- 1997. Soil Ecology Society meeting, Manhattan, KS. Contributed Poster – "The influence of pocket gopher disturbances on vegetation dynamics in tallgrass prairie." **William E. Rogers** & David C. Hartnett.
- 1997. Ecological Society of America Annual Meeting, Albuquerque, NM. Contributed Poster – "Effects of pocket gopher disturbances on vegetation dynamics and recolonization mechanisms in tallgrass prairie." **William E. Rogers** & David C. Hartnett.
- 1993. Long-Term Ecological Research Network All-Scientists meeting, Estes Park, CO. Contributed Poster - The influence of animal-generated disturbances on patterns of resources and vegetation. **William E. Rogers**, Brad Elder, O. James Reichmann, Nancy Huntley, Richard Inouye & David C. Hartnett.

7. SERVICE ACTIVITIES

7.1 Service Expectations: Contribute to departmental, university, and professional service activities.

7.2 Reviewer of proposals, journal manuscripts, and book chapters

a) Proposal reviewer:

- i) Chair of Panel Review for United States Department of Agriculture – ARS, Office of Scientific Quality Review – Grass, Forage, and Rangeland Agroecosystems NP 215 (February 2019).
- ii) Panelist for United States Department of Agriculture – ARS, Office of Scientific Quality Review – Biocontrol: Weeds and Insects NP 304 Panel E in Beltsville, MD. (July 2010).
- iii) Panelist for United States Department of Agriculture - CSREES AFRI Managed Ecosystems Program in Washington, D.C. (August 2009).
- iv) Panelist for United States Department of Agriculture - CSREES NRI Biology of Weedy & Invasive Species Program in Washington, D.C. (May 2008).

- v) Ad-hoc reviewer for National Science Foundation, Division of Environmental Biology –13 proposals representing multiple panels including Ecology, Ecological Biology, Population Biology, Ecosystem Studies, Quantitative Environmental and Integrative Biology, and Research in Undergraduate Institutions (2000-present).
- vi) Ad-hoc reviewer for Natural Sciences and Engineering Research Council of Canada - Strategic Projects Selection Panel for Healthy Environment and Ecosystems. (Summer 2009).
- vii) Ad-hoc reviewer for Murdock Science Research Trust. (October 2002).

b) Editorial duties for professional journals:

i) Editor-in-Chief for *Plant Ecology* (2014-present) – Responsibilities include overseeing the major editorial development and content of the journal while maintaining a timely and efficient peer-review system through the consultation of Associate Editors who will be handling of approximately 500 manuscripts annually. Other duties include but are not limited to the appointment, review and revision of the board of Associate Editors, solicitation of Guest Editors and special thematic issues, identifying and recruiting authors for submission of broad synthesis papers, and seeking to promote and increase the international reputation of the journal through an increased profile and ISI impact factor.

ii) Associate Editor for *Plant Ecology: A Springer-Verlag International Journal* (2010-2014) – Responsible for maintaining a timely and efficient peer-review system through the coordination of solicited external experts and render decisions on approximately 12-15 manuscripts annually.

c) Manuscript reviewer for journals: (> 150 manuscripts* from 40+ different journals since 2000)

American Journal of Botany, American Midland Naturalist, Annals of Botany, Australian Journal of Botany, Biological Invasions, Biology Letters, BioScience, Botany-Botanique, Diversity and Distributions, Ecological Applications, Ecological Entomology, Ecological Engineering, Ecological Management, Ecological Monographs, Ecological Restoration, Ecology, Environmental Management, Evolutionary Applications, Forest Ecology and Management, Frontiers in Ecology and the Environment, Functional Ecology, Global Change Biology, International Journal of Plant Sciences, Invasive Plant Science and Management, Journal of Applied Ecology, Journal of Arid Environments, Journal of Ecology, Journal of Vegetation Science, Madroño, Oecologia, Oikos, PeerJ, Plant Ecology, Proceedings of National Academy of Sciences, Rangeland Ecology and Management, Restoration Ecology, Scientific Reports-Nature, Southeastern Naturalist, Southwestern Naturalist, Texas AgriLife Extension, Texas Journal of Science, Trees-Structure & Function, and Weed Science

*Does not include number of manuscripts reviewed/handled as AE/EiC for Plant Ecology

d) Manuscript reviewer for chapters of book publishers:

- i) Subterranean Rodents: News from Underground (2007) Springer-Verlag Publishing
- ii) Biology: Science for Life (2006) Prentice Hall Publishing
- iii) Insects and Ecosystem Function (2004) Springer-Verlag Publishing
- iv) Plant Biology (2003) Prentice Hall Publishing

e) Manuscript reviewer for conference proceedings and technical bulletins:

- i) Proceedings of the Invasive Species Workshop (2001) Tall Timbers Research Station, Tallahassee
- ii) North American Prairie Conference Proceedings (2002)
- iii) USGS Scientific Investigation (2009)
- iv) USDA-NRCS Conservation Effects Assessment Project (2010)

f) External evaluator of tenure and promotion dossiers:

- i) University of Florida - Department of Environmental Horticulture (2012)
- ii) Pennsylvania State University - Department of Ecosystem Science & Management (2013)
- iii) University of Florida - Department of Agronomy (2015)
- iv) Colorado State University - Department of Bio-Agricultural Sciences & Pest Management (2015)
- v) University of Wyoming - Department of Ecosystem Science & Management (2015)
- vi) Union College, Schenectady, New York - Department of Biological Sciences (2017)
- vii) University of Nevada, Reno, Nevada - Natural Resources and Environmental Science (2017)
- viii) Trinity University, San Antonio, Texas – Department of Biology (2018)
- ix) University of Jordan – Department of Biological Sciences (2019)
- x) Indian Institute of Science, Bangalore, India - Division of Biological Sciences (2020)
- xi) University of Florida - Department of Agronomy (2020)

7.3 Professional Societies and Affiliations

a) Membership in professional societies:

- i) Ecological Society of America (plus membership in Range Ecology and Invasive Species sections)
- ii) Botanical Society of America
- iii) Society for Range Management (plus membership in Texas section)

- iv) Society for Ecological Restoration (plus membership in Texas section)
- v) International Association for Vegetation Science
- vi) Association of Fire Ecology
- vii) American Geophysical Union
- viii) International Union of Forest Research Organizations

b) Workshop and symposium organizing activities

i) Developer, coordinator, and moderator for the 2011 Organized Oral Session entitled “Sustaining Rangelands in the Southern Great Plains: Adapting to and Mitigating for Climate Change” at the Ecological Society of America 96th Annual Meeting, Austin, TX. Speakers included: Drs. Bradford Wilcox, Susan Schwinning, David Engle, John Briggs, Phil Fay, Rob Jackson, Elisabeth Huber-Sannwald, Dirac Twidwell, and Yiqi Luo addressing a variety of topics relevant to U.S. Southern Great Plains rangeland ecosystems and the tremendous ecological, economic, and social consequences woody encroachment and climate change pose to the sustainability and capacity for agricultural production in this region. Well-over 100 persons attended the various talks.

7.4 University Committee and Outreach Activities

a) Texas A&M University/Texas Agricultural Experiment Station

- i) Applied Biodiversity Science Program – Selection Committee (2011) & Participating Faculty (2009-present).
- ii) Interdisciplinary Research Program in Ecology and Evolutionary Biology – Member (2005-2010), Seminar Committee Chair (2010-2013), Executive Committee Member (2010-2014), Core Member (2014-present).
- iii) Student Guild for the Society for Ecological Restoration –Faculty Advisor and Founding Member (2010-2012).
- iv) Hispanic Leadership Program in Agriculture and Natural Resources - Participating Faculty (2006-2014).
- v) Alfred P. Sloan Foundation Minority PhD Program - Participating Faculty (2006-2011).
- vi) ESSM Tenure and Promotion Committee (2008-2017, 2019-present) & post-tenure review subcommittee (2016-2017, 2019-present).
- v) ESSM Undergraduate Curriculum Leadership Team (2006-2011).
- vi) ESSM Science Core Curriculum sub-committee (2006-2011).

- vii) ESSM Management Core Curriculum sub-committee (2006-2011).
- viii) ESSM Undergraduate Scholarship Committee (2011-2018, 2020).
- ix) ESSM Graduate Curriculum Committee (2011-2018).
- x) ESSM Graduate Admissions Committee (2009-2018).
- xi) ESSM Faculty Search Committee – Assistant Professor Hire (2009).
- xii) ESSM Faculty Search Committee – Senior Professor Hire (2009).
- xiii) RLEM Graduate Programs and Curricula Committee (2005-2006).
- xiv) RLEM Committee for development of B.S. program in Ecological Restoration (2005-2006).
- xv) ESSM Faculty Search Committee – Senior Hire for Sonora Station Fire Ecologist (2015-16).
- xvi) ESSM Capstone Course/W-Course Strategic Planning Committee (2017-2020).
- xvii) ESSM Faculty & Staff Recognition Awards Committee (2017-2020).
- xviii) ESSM Faculty Search Committee Chair – Assistant/Associate Professor Hire in Wildland Fire Science (2016-2017).
- xiv) Appointed as Texas AgriLife-Research representative for the Texas Department of Agriculture Prescribed Burning Board (2016-present).
- xv) Texas A&M University College of Agriculture and Life Sciences (COALS)-AgriLife Peer Review Promotion & Tenure Committee (2020-present).

b) Rice University

- i) Lovett College Faculty Associate (2000-2004).
- ii) Cain Undergraduate Writing Project - Faculty Mentor (2000-2003).
- iii) Strategic Curriculum Enhancement Committee (2002-2004).
- iv) New Huxley Research Instructor Search Committee (2003).
- v) New Faculty Hire Search Committees (2001 & 2003).

I hereby acknowledge that this CV is current and correct as of the date of the signature here:



15 June 2021

William E. Rogers, Ph.D.

Date

Brief Biosketch for William E. Rogers

William E. Rogers is currently a Professor in the Department of Ecosystem Science and Management at Texas A&M University in College Station, Texas. He is plant ecologist who is internationally recognized for research in the areas of invasive species, fire ecology, ecological restoration, plant-animal interactions, population dynamics, community assembly rules, and endangered plant conservation. He has coauthored over 70 peer-reviewed publications during his career, the majority of which include graduate and/or undergraduate student co-authors. Dr. Rogers' research publications are predominantly in high impact ecological journals and have accumulated more than 4725 citations including a review paper that has been cited over 1000 times. His current h-index is 34 and his i10-index is 59. He has secured more than \$15 million in research funding over his career from a variety of state and federal sources including NSF, USDA, and EPA, as well as private foundations. He has published more than 150 abstracts and regularly presents the findings from his research studies at professional societies, workshops, and invited seminars both nationally and internationally. His work is frequently highlighted in press-releases and newspaper stories. Because of his expertise, he is regularly sought as a reviewer of manuscripts, grant proposals, and an evaluator of promotion dossiers. He serves as the Editor-in-Chief for *Plant Ecology*, an international ecological journal published by Springer Sciences, and he is an active member in a number of professional scientific societies.

Dr. Rogers teaches an introductory, 3-credit undergraduate lecture course in terrestrial ecosystem restoration and management (ESSM 320) and co-teaches a 3-credit writing-intensive, capstone course in advanced ecological restoration (ESSM 430) each spring. Every fall semester from 2006-2018 he taught a stacked graduate and undergraduate, 3-credit lecture course entitled *Fire Ecology and Natural Resource Management* (ESSM 416/ESSM 626). Previously, he annually taught a field laboratory course in ecological restoration (RLEM 321) and in 2012 co-taught an 8-credit study abroad course in Southern Africa (RLEM 485/RENr 400) and reprised this role in 2018 and 2019 by participating in a 6-credit South Africa Study Abroad program. He is also contributing to the graduate curriculum for the EEB doctoral program by contributing lectures in *Population Ecology* (EEBL 602) and the Graduate Seminar course on *Publishing and Reviewing* (EEBL 610). He consistently earns outstanding evaluations for the courses he teaches and he received the ESSM Outstanding Undergraduate Teacher Award in 2014-2015 and again in 2017-2018. He actively mentors graduate and undergraduate students. He has been (co-)chair for 32 graduate students and served on 43 other graduate advisory committees. He has also engaged nearly 80 TAMU undergraduate students in research experiences. Many of these undergraduates ultimately presented and/or published their work and later sought advanced degrees or became employed in a science-related discipline.