## **CURRICULUM VITAE - Evan Siemann**

Dept. of Biosciences, MS 140

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# **OTHER RICE UNIVERSITY AFFILIATIONS:**

Ecology & Evolutionary Biology PhD program director 1999-2007

Environmental Studies steering committee, founding faculty member
Environmental Science major advisor, founding faculty member

Professional Master of Science in Environmental Analysis and Decision Making co-director since 2003

Education Certification Program and Master of Arts in Teaching & Teacher Education

advisor for Life Sciences and Biology areas since 2010

Shell Center for Sustainability operating committee, founding faculty member

Institute of Biosciences and Bioengineering member

**EDUCATIONAL HISTORY:** 

University of Minnesota 9/91-6/97 PhD in Ecology (Dr. David Tilman)

Cornell University 9/86-12/89 A.B. Biological Sciences

Oxford University 10/88-12/88 [study abroad]

## PROFESSIONAL EXPERIENCE:

Rice University

Associate Vice Provost for Academic Affairs 2014-present

Rice University, Dept. of Biosciences

Harry C. and Olga K. Wiess Professor 2014-present

Rice University, Dept. of Ecology and Evolutionary Biology

Department Chair
Harry C. and Olga K. Wiess Professor
Professor
Associate Professor
Assistant Professor
2009-2014
2013-2014
2008-2013
2004-2008
1998-2004

Jiangxi Agricultural University

Guest Professor 2014-2016
Meiling Scholar 2016-present

Nanjing Agricultural University

International Cooperating Professor 2012-2014

Chinese Academy of Sciences - Visiting Professor 2009-2010, 2012-2013, 2015

University of New Mexico, Dept. of Biology

Postdoc (Dr. James Brown) 1997-1998

University of Minnesota

Lecturer 1996
Research Assistant / Teaching Assistant 1991-1997

Cornell University

Pomology Dept. - *Technician* 1990-1991 Agronomy Dept. - *Research Specialist* 1990

## **RESEARCH AREAS:**

population ecology, community ecology, ecosystem ecology, chemical ecology, plant/herbivore interactions, plant/soil interactions, invasive species, biodiversity, conservation, restoration, algal biology, biofuels, wastewater remediation, biofertilizers, forests, grasslands, wetlands, streams, mountains

### **AWARDS AND HONORS:**

Distinguished Associate, Will Rice College 2001-2002, 2003-2004

Outstanding Associate, Will Rice College 2000-2001

Visiting Professorship for Senior International Scientists, Chinese Academy of Sciences

2009-2010, 2012-2013, 2015

Meiling Scholar, Jiangxi Agricultural University 2016

## **PUBLICATIONS:**

http://scholar.google.com/citations?user=Yfkyms8AAAAJ&hl=en&oi=ao

10,005 citations, h-index=39, i10-index=69

\* indicates undergraduate authors; † indicates graduate student authors

## 2017 or in press:

- 106. <sup>‡</sup>Wang H, Zhang L, <sup>‡</sup>Ma XC, Zou JW, Siemann E. The effects of elevated ozone and CO<sub>2</sub> on growth and defense of native, exotic and invader trees (29 pages, 5 tables, 6 figures, Journal of Plant Ecology)
- 105. Zhang L. Zou JW, Siemann E. 2017. Interactive effects of elevated CO<sub>2</sub> and nitrogen deposition accelerate litter decomposition cycles of invasive tree (*Triadica sebifera*) 385: 189-197

#### 2016:

- 104. Zenni RD, Dickie IA, Wingfield MJ, Hirsch H, Crous CJ, Meyerson LA, Burgess TI, Zimmermann TG, <sup>‡</sup>Klock MM, Siemann E, Erfmeier A, Aragon R, Moniti L, Le Roux JJ. 2016. Evolutionary dynamics of tree invasions: complementing the unified framework for biological invasions. Annals of Botany Plants. doi:10.1093/aobpla/plw085
- 103. Siemann E, DeWalt SJ, Zou JW, Rogers WE. 2016. An experimental test of the Evolution of Increased Competitive Ability Hypothesis in multiple ranges: invasive populations outperform those from the native range independent of insect herbivore suppression Annals of Botany Plants doi:10.1093/aobpla/plw087
- 102. <sup>‡</sup>Li X. <sup>‡</sup>Guo W, Siemann E, Huang W, Ding JQ. 2016. Interactions of aboveground and belowground heterospecific herbivores varied in tallow tree native and invasive genotypes(*Triadica sebifera*) Oecologia 182:1107-1115
- 101. Wang Y, <sup>‡</sup>Zhu L, Siemann E, Ding JQ. 2016. Repeated damage by specialist insects suppresses the growth of a high tolerance invasive tree. Biocontrol 61:793-801.
- 100. <sup>‡</sup>Carrillo J, Siemann E. 2016. Native plant competition mediates the biocontrol impact of above- and belowground herbivory on an invasive tree. Ecological Applications 26:2060-2071.
- 99. Lu XM, Siemann E, <sup>‡</sup>He M, <sup>‡</sup>Wei M, <sup>‡</sup>Shao X, Ding JQ. 2016. Warming benefits a native plant competing with an invasive congener in the presence of a biocontrol beetle. New Phytologist 211: 1371-1381.
- 98. <sup>‡</sup>Deng B, <sup>‡</sup>Li B, Zhang L, <sup>‡</sup>Ma Y, Zhang W, <sup>‡</sup>Li Z, Guo X, Niu D, Siemann E. 2016. Increases in soil CO<sub>2</sub> and N<sub>2</sub>O emissions from restored meadows of Wugong Mountain, China with warming depend on plant species. Journal of Soils and Sediments 16:777-784
- 97. <sup>‡</sup>Wang H, <sup>‡</sup>Ma XC, <sup>‡</sup>Zhang L, Zou JW, Siemann E. 2016. UV-B has larger impacts on invasive populations of *Triadica sebifera* but ozone impacts do not vary. Journal of Plant Ecology 9:61-68
- 96. <sup>‡</sup>Zhang L, <sup>‡</sup>Ma XC, <sup>‡</sup>Wang H, Liu S, Zou JW, Siemann E. 2016. Soil respiration and litter decomposition rate increased following perennial forbs invasion. Pedosphere 26:567-576.

# 2015:

- 95. <sup>‡</sup>Yang Q, Li B, Siemann E. 2015. The effects of fertilization on plant-soil interactions and salinity tolerance of invasive *Triadica sebiferum*. Plant & Soil 394:99–107
- 94. <sup>‡</sup>Liu G, Siemann E, Gao Y, Peng S. 2015. Nutrient addition amplifies salinity-dependent differences in competitive ability of invasive and native vines. Biological Invasions 17:3479-3490
- 93. Bhattacharjee M, Siemann E. 2015. Low algal diversity systems are a promising method for biodiesel production in wastewater fed open reactors. Algae 30:67-79 [press coverage in more than 50 outlets]
- 92. Lu XM, Siemann E, <sup>‡</sup>Shao X, <sup>‡</sup>Wei H, Ding JQ. 2015. Effects of warming and nitrogen on above and belowground herbivores vary between invasive and native plants. Biological Invasions 17:2881-2892
- 91. \*Meza-Lopez MM, Siemann E. 2015. Experimental test of the Invasional Meltdown Hypothesis: an exotic herbivore facilitates a plant invader, but the plant does not reciprocally facilitate the herbivore. Freshwater Biology 60:1475-1482
- 90. <sup>‡</sup>Yang Q, <sup>‡</sup>Wei S, <sup>‡</sup>Shang L, <sup>‡</sup>Carrillo J, <sup>‡</sup>Gabler CA, Nijjer S, Li B, Siemann E. 2015. Mycorrhizal associations of an invasive tree are enhanced by both genetic and environmental mechanisms. Ecography 38: 1112-1118
- 89. Huang W, Siemann E, Carrillo J, Ding JQ. 2015. Belowground herbivory limits induction of indirect aboveground plant defense to aboveground herbivores. Annals of Botany 115:841-846
- 88. <sup>‡</sup>Yang Q, Li B, Siemann E. 2015. Positive and negative biotic interactions and invasive *Triadica sebifera* tolerance to salinity: a cross-continent comparative study. Oikos 124:216-224
- 87. Lu XM, Siemann E, <sup>‡</sup>He M, <sup>‡</sup>Wei H, <sup>‡</sup>Shao X, Ding JQ. 2015. Climate warming increases the effects of biological control on a non-target species. Ecology Letters 18:48-56

- 86. Huang W, Siemann E, Xiao L, Yang X, Ding JQ. 2014 Species-specific defense responses facilitate conspecifics and inhibit heterospecifics in above-belowground herbivore interactions. Nature Communications 5: 4851. doi:10.1038/ncomms5851
- 85. <sup>‡</sup>Zhang L, Liu S, <sup>‡</sup>Zhang Y, <sup>‡</sup>Chen N, <sup>‡</sup>Wang H, <sup>‡</sup>Gao Z, <sup>‡</sup>Guo Y, Zou JW, Siemann E. 2014. Effects of *Solidago canadensis* invasions on litter decay rates and nitrogen dynamics depend on litter mixing. Scientific Reports 4, Article number: 5488, doi:10.1038/srep05488
- 84. <sup>‡</sup>Carrillo J, \*McDermott D, Siemann E. 2014. Loss of specificity: Native but not invasive populations vary in

- tolerance to different herbivores. Oecologia 174: 863-871.
- 83. <sup>‡</sup>Gu X, Siemann E, Zhu L, Gao S, Wang Y, Ding JQ. 2014. Invasive plant population and herbivore identity affect latex induction. Ecological Entomology 39:1-9.
- 82. <sup>‡</sup>Zhang L, <sup>‡</sup>Wang H, Zou JW, Rogers WE, Siemann E. 2014. Non-native plant litter enhances soil carbon dioxide emissions in an invaded annual grassland. PLoS-ONE DOI: 10.1371/journal.pone.0092301
- 81. <sup>‡</sup>Chen L, <sup>‡</sup>Tiu C, Peng S, Siemann E. 2013. Phenotypic plasticity and invasion: invasive populations of *Triadica sebifera* have performance advantage over native populations only in low soil salinity. PLoS-one 8(9): e74961. doi:10.1371/journal.pone.0074961
- 80. <sup>‡</sup>Zhang L, <sup>‡</sup>Zhang Y, Zou JW, Siemann E. 2013. Chinese tallow trees (*Triadica sebifera*) from the invasive range outperform those from the native range with an active soil community or phosphorus fertilization. PLoS ONE 8(9): e74233. doi:10.1371/journal.pone.0074233
- 79. <sup>‡</sup>Gabler CA, Siemann E. 2013. Timing of favorable conditions, competition and fertility interact to govern recruitment of invasive Chinese tallow tree in stressful environments. PLoS ONE 8(8): e71446. doi:10.1371/journal.pone.0071446
- 78. <sup>‡</sup>Huang W, Siemann E, <sup>‡</sup>Yang X, Wheeler GS, Ding JQ. 2013. Facilitation and inhibition: changes in plant nitrogen and secondary metabolites mediate interactions between above- and belowground herbivores. Proceedings of the Royal Society B 280:20131318.
- 77. <sup>‡</sup>Wang Y, <sup>‡</sup>Carrillo J, Siemann E, Wheeler GS, <sup>‡</sup>Zhu L, <sup>‡</sup>Gu X, Ding JQ. 2013. Specificity of extrafloral nectar induction by herbivores differs among native and invasive populations. Annals of Botany 112:751-756. (cover article picture by Carrillo J)
- 76. Lu XM, Siemann E, <sup>‡</sup>Shao X, <sup>‡</sup>Wei H, Ding JQ. 2013. Climate warming affects biological invasions by shifting interactions of plants and herbivores. Global Change Biology 19:2339-2347.
- 75. <sup>‡</sup>Yang Q, <sup>‡</sup>Carrillo J, <sup>‡</sup>Jin H, <sup>‡</sup>Shang L, Hovick SM, Nijjer S, <sup>‡</sup>Gabler CA, Li B, Siemann E. 2013. Plant-soil interactions and *Triadica sebifera* invasion: a cross-continent comparative study. Soil Biology & Biochemistry 65:78-85.
- 74. <sup>‡</sup>Horn KC, Eubanks MD, Siemann E. The effect of diet on intra- and interspecific interactions of Caribbean crazy ants (*Nylanderia pubens*) PLoS ONE 8(6): e66912. doi:10.1371/journal.pone.0066912
- 73. <sup>‡</sup>Gabler CA, Siemann E. 2013. Rapid ontogenetic niche expansions in invasive Chinese tallow tree permit establishment in unfavorable but variable environments and can be exploited to streamline restoration Journal of Applied Ecology 50:748–756.

- 72. <sup>‡</sup>Carrillo J, <sup>‡</sup>Wang Y, Ding JQ, Siemann E. 2012. Induction of extrafloral nectar depends on herbivore type in invasive and native Chinese tallow seedlings. Basic and Applied Ecology 13:449-457.
- 71. <sup>‡</sup>Gabler CA, Siemann E. 2012. Environmental variability and ontogenetic niche shifts in exotic plants may govern reinvasion pressure in restorations of invaded ecosystems. Restoration Ecology 20:545-550.
- 70. <sup>‡</sup>Huang W, <sup>‡</sup>Carrillo JA, Ding JQ, Siemann E. 2012. Invader partitions ecological and evolutionary responses to above and belowground herbivory. Ecology 11:2343-2352.
- 69. \*Wundrow EJ, <sup>‡</sup>Carrillo JA, <sup>‡</sup>Gabler CA, <sup>‡</sup>Horn KC, Siemann E. 2012. Facilitation and competition among invasive plants: a field experiment with alligatorweed and water hyacinth. PLoS ONE 7(10): e48444. doi:10.1371/journal.pone.0048444
- 68. <sup>‡</sup>Huang W, Siemann E, <sup>‡</sup>Carrillo J, Ding JQ. 2012. Interactive effects of herbivory and competition intensity determine invasive plant performance. Oecologia 170: 373-382.
- 67. <sup>‡</sup>Park I, DeWalt SJ, Siemann E, Rogers WE. 2012. Differences in cold hardiness between introduced populations of an invasive tree. Biological Invasions 14:2029-2038.
- 66. <sup>‡</sup>Wang Y, Siemann E, Wheeler GS, <sup>‡</sup>Zhu L, <sup>‡</sup>Gu X, Ding JQ. 2012. Genetic variation in anti-herbivore chemical defenses in an invasive plant. Journal of Ecology 100:894-904.
- 65. <sup>‡</sup>Chamberlain S, Hovick S, <sup>‡</sup>Dibble C, <sup>‡</sup>Rasmussen N, <sup>‡</sup>Van Allen B, <sup>‡</sup>Maitner B, <sup>‡</sup>Ahern J, <sup>‡</sup>Bell-Dereske L, <sup>‡</sup>Carrillo J, <sup>‡</sup>Meza-Lopez M, <sup>‡</sup>Roy C, Siemann E, Lajeunesse M, Whitney KD. Does phylogeny matter? 2012. Assessing the impact of phylogenetic information in ecological meta-analysis. Ecology Letters 15:627-636.
- 64. <sup>‡</sup>Carrillo J, <sup>‡</sup>Wang Y, Ding JQ, Klootwyk K, Siemann E. 2012. Decreased indirect defense in the invasive tree, *Triadica sebifera*. Plant Ecology 213:945-954.
- 63. <sup>‡</sup>Carrillo JA, Danielson-François A, Siemann E, Meffert L. 2012. Density dependent sexual conflict in the housefly, *Musca domestica*. Journal of Ethology 30:247-254.

- 62. DeWalt SJ, Siemann E, Rogers WE. 2011. Geographic distribution of genetic variation in introduced populations of Chinese Tallow Tree. American Journal of Botany 98: 1128-1138. (featured in Houston Chronicle, American Gardener, Science Daily)
- 61. <sup>‡</sup>Wang Y, <sup>‡</sup>Huang W, Siemann E, Zou JW, Wheeler GS, <sup>‡</sup>Carrillo J, Ding JQ. 2011. Lower herbivore resistance and higher tolerance in invasive plants: biological control agents reach high densities but exert weak control of their host plants. Ecological Applications 21: 729-738.

- 60. <sup>‡</sup>Nijjer S, Rogers WE, Siemann E. 2010. Impacts of fertilization on mycorrhizal allocation and effectiveness in Western Gulf Coast grasslands. American Midland Naturalist 163:124-133.
- 59. <sup>‡</sup>Zhang W, Hendrix PF, <sup>‡</sup>Snyder BA, Molina M, Li J, Rao X, Siemann E, Fu S. Dietary flexibility aids Asian earthworm invasion in North American forests. Ecology 91:2070-2079.
- 58. <sup>‡</sup>Huang W, Siemann E, Wheeler GS, Zou JW, <sup>‡</sup>Carrillo J, Ding JQ. 2010. Resource allocation to defense and growth are driven by different responses to generalist and specialist herbivory in an invasive plant. Journal of Ecology 98:1157-1167.
- 57. <sup>‡</sup>Hartley M, Rogers WE, Siemann E. 2010. Comparisons of arthropod assemblages on an invasive and native trees: abundance, diversity and damage Arthropod-Plant Interactions 4:237-245.

### 2009:

- 56. Siemann E, <sup>‡</sup>Carrillo, <sup>‡</sup>Gabler CA, Zipp R, Rogers WE. Experimental test of the impacts of feral hogs on forest dynamics and processes in the southeastern US. Forest Ecology and Management 258: 546-553.
- 55. <sup>‡</sup> Zou J, Rogers WE, Siemann E. 2009. Plasticity of *Sapium sebiferum* seedling growth to light and water resources: Inter- and intraspecific comparisons. Basic and Applied Ecology 10:79-88.

### 2008:

- 54. <sup>‡</sup>Zou JW, Siemann E,Rogers WE, DeWalt SJ. 2008 Decreased resistance and increased tolerance to native herbivores of the invasive plant *Sapium sebiferum*. Ecography 31: 663-671.
- 53. \*Rua MA, <sup>‡</sup>Nijjer S, <sup>‡</sup>Johnson A, Rogers WE, Siemann E..2008. Experimental approaches for testing allelopathy: a case study using the invader *Sapium sebiferum*. Allelopathy Journal 22:1-13.
- 52. <sup>‡</sup>Zou J, Rogers WE, Siemann E. 2008. Increased competitive ability and herbivory tolerance of the invasive plant *Sapium sebiferum*. Biological Invasions 10:291-302.
- 51. \*Horn KC, \*Johnson SD, \*Boles KM, \*Moore A, Siemann E, <sup>‡</sup>Gabler CA. 2008. Factors affecting hatching success of golden apple snail eggs: effects of water immersion and cannibalism. Wetlands 28:544-549.
- 50. Nijjer S, Rogers WE, Lee CA, Siemann E. 2008. The effects of soil biota and fertilization on the success of *Sapium sebiferum*. Applied Soil Ecology 38:1-11.

#### 2007:

- 49. Siemann E, Rogers WE, Grace JB. 2007. Effects of nutrient loading and changing frequencies of extreme rainfall events on coastal tall grass prairies: invasion intensity, vegetation responses and C and N distribution. Global Change Biology 13: 2184–2192.
- 48. <sup>‡</sup>Nijjer S, Rogers WE, Siemann E. 2007. Negative plant-soil feedbacks reduce the long-term success of an invasive tree. Proceedings of the Royal Society of London, Series B 274: 2621–2627.
- 47. <sup>‡</sup>Zou J, Rogers WE, Siemann E. 2007. Differences in morphological and physiological traits between native and invasive populations of *Sapium sebiferum* Functional Ecology 21: 721-730.
- 46. Siemann E, Rogers WE. 2007. The role of soil resources in an exotic tree invasion in Texas coastal prairie. Journal of Ecology 95: 689-697.
- 45. <sup>‡</sup>Hartley M, Rogers WE, Grace JB, Siemann E. 2007. Responses of prairie arthropod communities to fire and fertilizer: balancing plant and arthropod conservation. American Midland Naturalist 157:92-105.

#### 2006

- 44. <sup>‡</sup>Zou JW, Rogers WE, DeWalt SJ and Siemann E.2006. Chinese tallow tree (*Sapium sebiferum*) ecotype effects on ecosystem carbon and nitrogen processes. Oecologia 150:272-281.
- 43. Siemann E, Rogers WE, DeWalt SJ. 2006. Rapid adaptation of an invasive plant and its insect herbivores. Proceedings of the Royal Society of London, Series B 273:2763-2769
- 42. Siemann E, Rogers WE. 2006. Recruitment limitation, seedling performance and persistence of exotic tree monocultures Biological Invasions 8:979-991
- 41. <sup>‡</sup>Donahue C, Rogers WE, Siemann E. 2006. Restoring an invaded prairie by mulching live *Sapium sebiferum* (Chinese tallow trees): effects of mulch on *Sapium* seed germination. Natural Areas Journal 26:244-253.
- 40. DeWalt SJ, Siemann E, Rogers WE. 2006. Microsatellite markers for an invasive tetraploid tree, Chinese Tallow (*Triadica sebifera*). Molecular Ecology Notes 6:505-507.

#### 2005:

- 39. Rogers WE, Siemann E. 2005. Herbivory tolerance in native and invasive ecotypes of Chinese tallow tree (*Sapium sebiferum*) under different resource levels: support for the Evolution of Increased Competitive Ability hypothesis Plant Ecology 181:57-68.
- 38. Bossdorf O, Auge H, Lafuma L, Rogers WE, Siemann E, Prati D. 2005. Phenotypic and genetic differentiation in native versus introduced plant populations Oecologia 144: 1-11

- 37. Weisser WW, Siemann E. 2004. The various effects of insects on ecosystem functioning. pages 3-24 in Weisser WW, Siemann E (eds). Insects and Ecosystem Function. Ecological Studies Series. Springer-Verlag.
- 36. Siemann E, Carson WP, Rogers WE, Weisser WW. 2004. Reducing herbivory using insecticides. pages 303-327 in Weisser, W.W. and Siemann E (eds). Insects and Ecosystem Function. Ecological Studies Series.

- Springer-Verlag.
- 35. Rogers WE, Siemann E. 2004. The role of herbivores in alien plant invasions: insights using a combination of methods to enhance or reduce herbivory. pages 329-355 in Weisser, W.W. and Siemann E (eds). Insects and Ecosystem Function. Ecological Studies Series. Springer-Verlag
- 34. Siemann E, Weisser WW. 2004. Testing the role of insects for ecosystem functioning. pages 383-401 in Weisser WW, Siemann E (eds). Insects and Ecosystem Function. Ecological Studies Series. Springer-Verlag
- 33. Rogers WE, Siemann E. 2004. Invasive ecotypes tolerate herbivory more effectively than native ecotypes of the Chinese tallow tree *Sapium sebiferum*. Journal of Applied Ecology 41:561-570.
- 32. \*Lankau RL, Rogers WE, Siemann E. 2004. Constraints on the utilization of the invasive Chinese Tallow Tree (*Sapium sebiferum*) by generalist native herbivores in coastal prairies. Ecological Entomology 29:66-75.
- 31. \*Butterfield BJ, Rogers WE, Siemann E. 2004. Growth of Chinese tallow tree (*Sapium sebiferum*) and four native trees along a water gradient. Texas Journal of Science 56: 335-346. [Big Thicket Science Conference Special Issue -publication date November 2004, printed September 2005]
- 30. <sup>‡</sup>Donahue C, Rogers WE, Siemann E. 2004. Effects of temperature and mulch depth on Chinese Tallow Tree (*Sapium sebiferum*) seed germination. Texas Journal of Science 56: 347-356. [Big Thicket Science Conference Special Issue -publication date November 2004, printed September 2005]
- 29. \*Nijjer S, Rogers WE, Siemann E. 2004. The effect of mycorrhizae on the growth of five native tree species and the invasive Chinese Tallow Tree (*Sapium sebiferum*) Texas Journal of Science 56: 357-368. [Big Thicket Science Conference Special Issue -publication date November 2004, printed September 2005]
- 28. <sup>‡</sup>Hartley MK, DeWalt SJ, Rogers WE, Siemann E. 2004. Characterization of arthropod assemblage supported by the Chinese Tallow tree (*Sapium sebiferum*). Texas Journal of Science 56: 369-382. [Big Thicket Science Conference Special Issue -publication date November 2004, printed September 2005]

- 27. Siemann E, Rogers WE. 2003. Increased competitive ability of an invasive tree may be limited by an invasive beetle. Ecological Applications 13:1503-1507.
- 26. Siemann E, Rogers WE. 2003. Changes in resources under pioneer trees may facilitate tree invasions of grasslands. Journal of Ecology 91:923-931.
- 25. Siemann E, W. E. Rogers. 2003. Herbivory, disease, recruitment limitation and success of alien and native tree species. Ecology 84:1489-1505
- 24. Siemann E, Rogers WE. 2003. Reduced resistance of invasive varieties of the alien tree *Sapium sebiferum* to a generalist herbivore. Oecologia 135:451-457.
- 23. Rogers WE, Siemann E, \*Lankau RA. 2003. Damage induced production of extrafloral nectaries in native and introduced seedlings of Chinese tallow tree (*Sapium sebiferum*) American Midland Naturalist 149:413-417.
- 22. Rogers WE, Siemann E. 2003. Effects of simulated herbivory and resources on Chinese tallow tree (*Sapium sebiferum*, Euphorbiaceae) invasion of native coastal prairie. American Journal of Botany 90:241-247.

#### 2002:

- 21. Fagan WF, Siemann E, Denno RF, Mitter C, Huberty AF, Woods HA, Elser JJ. 2002. Nitrogen content variation in insects: implications for trophic complexity and species diversification. American Naturalist 160:784-802.
- 20. Rogers WE, Siemann E. 2002. Effects of simulated herbivory and resource availability on native and invasive exotic tree seedlings Basic and Applied Ecology 3:297-307.
- 19. \*Nijjer S, \*Lankau RA, Rogers WE, Siemann E. 2002. Effects of temperature and light on Chinese Tallow (*Sapium sebiferum*) and Texas Sugarberry (*Celtis laevigata*) seed germination. Texas Journal of Science 54:63-68.

### 2001:

- 18. Siemann E, Rogers WE. 2001. Genetic differences in growth of an invasive tree species. Ecology Letters 4:514-518. (highlighted in Science Daily, Environmental News Service, The Guardian, Houston Business News)
- 17. Twilley RB, Barron EJ, Gholz HL, Harwell MA, Miller RL, Reed DJ, Rose JB, Siemann EH, Wetzel RG, Zimmerman RJ. 2001. Confronting climate change in the Gulf region: prospects for sustaining our ecological heritage. Union of Concerned Scientists, Cambridge, Massachusetts, and Ecological Society of America, Washington, D.C., 100 p. (highlighted in Houston Chronicle, New Orleans Times-Picayune, Tampa Tribune, St. Petersburg Times, and received regional radio, TV and print coverage)

- 16. Elser JJ, Fagan WF, Denno RF, <sup>‡</sup>Dobberfuhl DR, <sup>‡</sup>Folarin A, <sup>‡</sup>Huberty A, <sup>‡</sup>Interlandi S, Kilham SS, McCauley E, Schulz KL, Siemann EH, Sterner RW. 2000. Nutritional constraints in terrestrial and freshwater food webs. Nature 408:578-580. (Highlighted in Science Daily)
- 15. \*Keay J, Rogers WE, \*Lankau R, Siemann E. 2000. The role of allelopathy in the invasion of the Chinese Tallow Tree (*Sapium sebiferum*). Texas Journal of Science 52S: 57-64. [Big Thicket Science Conference Special Issue]
- 14. Rogers WE, \*Nijjer S, \*Smith CL, Siemann E. 2000. Effects of resources and herbivory on leaf demography

- and physiology on Chinese Tallow (*Sapium sebiferum*) Texas Journal of Science 52S:43-56.[Big Thicket Science Conference Special Issue]
- 13. Symstad AJ, Siemann E, Haarstad J. 2000. An experimental test of the effect of plant functional group diversity on arthropod diversity. Oikos 89:243-253.

- 12. Siemann E, Brown JH. 1999. Gaps in mammalian body size distributions reexamined Ecology 80:2788-2792.
- 11. Siemann E, Haarstad J, Tilman D. 1999. Dynamics of arthropod and plant diversity during old field succession. Ecography 22:406-414.
- 10. Siemann E, Tilman D, Haarstad J. 1999. Abundance, diversity and body size: patterns from a grassland arthropod community. Journal of Animal Ecology 68:824-835.
- 9. Knops JMH, Tilman D, Haddad NM, Naeem S, Mitchell CE, Haarstad JH, Ritchie ME, Howe KM, Reich PB, Siemann E, Groth J. 1999. Effects of plant species richness on invasions dynamics, disease outbreaks, insects abundance and diversity. Ecology Letters 2:286-293.

### 1998:

- 8. Siemann E, Tilman D, Haarstad J, Ritchie M. 1998. Experimental tests of the dependence of arthropod diversity on plant diversity. American Naturalist 152:740-752.
- 7. Siemann E. 1998. Experimental tests of the effects of plant productivity and plant diversity on grassland arthropod diversity. Ecology 79:2057-2070.
- 6. \*Larson J, Siemann E. 1998. Legumes may be symbiont limited during old field succession. American Midland Naturalist 140:90-95.

### 1997 or earlier:

- Siemann EH. 1997. Controls of the diversity and structure of grassland insect communities. PhD. dissertation, University of Minnesota.
- 5. Siemann E, Haarstad J, Tilman D. 1997. Short-term and long-term effects of burning on oak savanna arthropods. American Midland Naturalist 137:349-361
- 4. Tilman D, Knops J, Wedin D, Reich P, Ritchie M, Siemann E. 1997. Functional diversity and composition simultaneously influence ecosystem processes. Science 277: 1300-1302. (highlighted in Perspectives by Grime, Science Daily and other media)
- 3. Tilman D, Naeem S, Knops J, Reich P, Siemann E, Wedin D, Ritchie M, Lawton J. 1997. Biodiversity and ecosystem properties. Science 278:1865-1866.
- Siemann E, Tilman D, Haarstad J. 1996. Insect species diversity, abundance and body size relationships. Nature 380:704-706. (highlighted in News and Views by Nee and Lawton, highlighted in The Sciences, April 1997)
- 1. Siemann EH, Creasy LL. 1992. Concentration of the phytoalexin resveratrol in wine. American Journal of Enology and Viticulture 43(1):49-52. (highlighted in NY Times, Wall St. Journal, Discover [top 20 scientific advances of 1992] and many other publications)

# **MANUSCRIPTS IN REVIEW OR REVISION:**

- Zhang L, <sup>‡</sup>Wang H, <sup>‡</sup>Zhang Y, Liu S, Zou JW, Siemann E. Soil-atmosphere greenhouse gas (GHG) exchanges are increased by perennial forb invasions into an annual grassland in China (29 pages, 4 tables, 5 figures) Yang, Q, Ding JQ, Siemann E. Ecological and evolutionary interactions of plants and foliar herbivores depend on soil biota (30 pages, 3 tables, 6 figures)
- Li Z, Zhang L, <sup>‡</sup>Deng B, Liu Y, <sup>‡</sup>Kong F, <sup>‡</sup>Huang G, <sup>‡</sup>Zou Q, Liu Q, Guo X, Fu Y, Niu D, Siemann E. Effects of moso bamboo (*Phyllostachys pubescens*) invasions on soil nitrogen cycles depend on invasion stage and warming (35 pages. 4 tables. 5 figures)
- Wang Y, Ding JQ, Zhu L, Xiao L, Siemann E. Contrasting effects of invasive plant volatiles on host selection of generalist and specialist herbivores (28 pages, 1 table, 5 figures)
- <sup>‡</sup>Meza-Lopez MM, Siemann E. Nutrient enrichment may contribute to aquatic herbivore invasions (27 pages, 1 table, 4 figures)
- <sup>‡</sup>Meza-Lopez MM, Siemann E. Nutrient enrichment effects on invasions depend on climate warming: an experimental test with freshwater wetland plant communities (31 pages, 4 tables, 6 figures)
- <sup>‡</sup>Hu Y, Zhang L, Liu Y, <sup>‡</sup>Deng B, <sup>‡</sup>Liu X, Kong F, Zou Q, Zhang Y, Guo X, Siemann E. Non-additive effects of termites on soil carbon dioxide emissions and nitrogen transformations impacted by warming and nitrogen deposition (37 pages, 5 tables, 7 figures)

#### BOOKS:

Weisser WW and Siemann E (eds). 2004. Insects and Ecosystem Function. Ecological Studies Series. Springer-Verlag. (reprinted in soft-cover 2007)

## **NON-PEER REVIEWED:**

Siemann E, \*Nijjer S, \*Gill J. 2005. Conservation Management Report for Houston Arboretum and Nature Center. 130 pp. [developed by BIOS 323 – Conservation Biology class; highlighted in Houston Chronicle]

### **INVITED TALKS:**

Xishuangbanna Tropical Botanical Garden CAS, Menglun, Yunnan, China, December 20, 2016

Henan University, School of Life Sciences, Kaifeng, Henan, China, December 16, 2016

Jiangxi Agricultural University, Forestry School, December 11, 2016

Nanjing Agricultural University, International Workshop Soil-Plant Interactions and Soil Microbial Ecology, May 23, 2016

University of Houston, Biochemistry and Biology, April 13, 2016

University of Pittsburgh, Biological Sciences, April 4, 2016

Jiangxi Agricultural University, School of Landscape and Art, December 21, 2015

Henan University, School of Life Sciences, Kaifeng, Henan, China, December 17, 2015

Stellenbosch University, Workshop: Evolutionary dynamics of tree invasions: drivers, dimensions, and implications for management, Stellenbosch South Africa, November 9, 2015

Swedish University of Agricultural Sciences, Alnarp, Sweden, September 14, 2015

Shaanxi Normal University, Biology Department, July 13, 2015

Jiangxi Agricultural University, Forestry Department, May 8, 2015

Jiangxi Agricultural University, School of Landscape and Art, December 21, 2014

Jiangxi Agricultural University, Forestry Department, December 21, 2014

Purdue University, Biology Dept. Sept 3, 2014

Nanjing Agricultural University, June 18, 2014.

Hubei Forestry Institute, Wuhan, Hubei, China, June 6, 2014.

Nanjing Agricultural University, International Workshop on Agricultural Resource Utilization and Soil Quality Improvement, December 3, 2013

Nanjing Agricultural University, Training course on scientific writing, May 28, 2013.

Master Gardeners, Bay Area Park, March 20, 2013

Department of Agricultural Resources and Environment, Nanjing University of Information Science and Technology, March 4, 2013

Nanjing Agricultural University, International Workshop on Agricultural Resource Utilization and Soil Quality Improvement, October 30, 2012

Sun-Yat Sen University (Guangzhou, China) March 2, 2012

Nanjing Agricultural University, Training course for new faculty (2 talks), November 5, 2011.

Fudan University, International training course on global change (2 talks), July 25 & 26, 2011.

SDSU, Biology Dept, May 2, 2011

LSU AG Center and Louisiana Department of Wildlife and Fisheries, March 16, 2011

University of Houston, September 15, 2010

Wuhan Botanical Garden (Hubei, China), December 5, 2009

South China Botanical Institute (Guangdong, China), September 19, 2009

Dept. of Biology, Fudan University, (Shanghai, China), June 23, 2009

South China Botanical Institute (Guangdong, China), June 21, 2009

South China Botanical Institute (Guangdong, China), March 7, 2009

International Workshop and Training Course on Invasive Species (Wuhan, Hubei, China), October 2008 (2 talks)

South China Botanical Institute (Guangdong, China), November 19, 2007

Dept. of Biology, Fudan University, (Shanghai, China), November 26, 2007

Wuhan Botanical Garden (Hubei, China), November 21, 2007

College of Resources and Environmental Sciences, Nanjing Agricultural University, (Nanjing, China), November 23, 2007

Biology Dept., Indiana University, April 20, 2007

Dinghu Mountain Forest Research Center (Guangdong, China), July 15, 2006

Dongguan Botanical Garden (Guangdong, China), July 16, 2006

South China Botanical Institute (Guangdong, China), July 17, 2006

Dept. of Biology, Fudan University, (Shanghai, China), July 24, 2006

Wuhan Botanical Garden (Hubei, China), July 25, 2006

Rangeland Science Dept, TX A&M University, April 4, 2006

Houston Arboretum and Nature Center, October 6, 2005

Biology Department, University of Montana, February 27, 2004.

EPA workshop: 2nd National EPA Nonindigenous Species Workshop , February 4, 2004, Research Triangle Park, NC.

EPA workshop: EPA STAR Region 6 Environmental Research Seminar, Dallas, TX, May 28, 2003.

Institut für Ökologie, Friedrich-Schiller-Universität, Jena, Germany, May 23, 2003.

EPA workshop: Use of science in Gulf of Mexico decision making involving climate change, TX A+M, College Station, TX, May 6, 2003.

Botany and Zoology Depts, University of Toronto, Toronto, Canada, March 3, 2003

Sapelo Island Field Station, University of Georgia, February 22, 2003

Botany Department, University of Florida, Gainesville, FL, February 21, 2003.

Biological Science Dept., Florida State University, Tallahassee, FL, February 20, 2003.

Institut für Ökologie, Friedrich-Schiller-Universität, Jena, Germany, September 16, 2002

Biology Department, University of Louisiana, Lafayette, August 22, 2002.

Pymatuning Lab of Ecology, May 29, 2002

College of Resources and Environmental Sciences, Nanjing Agricultural University, Nanjing, China, May 3, 2002.

ESF workshop: Manipulating insect herbivory in biodiversity ecosystem function experiments, Großkochberg, Germany, Sept 23, 2001.

Department of Biological Sciences, Texas Tech University, June 20, 2001.

Department of Ecology and Evolutionary Biology, Yale University, February 19, 2001

DOW, October 26, 2000

NCEAS, Ecological Stoichiometry Working Group, May 1, 2000

National Wetlands Research Center, March 3, 2000

NCEAS, Ecological Stoichiometry Working Group, December 4, 1999

Entomology Department, University of Maryland, November 8, 1999

Biology Department, University of Houston, October 20, 1999

Biology Department, University of Texas, Arlington, October 14, 1999

Conference on Climate Change, Pest Control and Agriculture, Gainesville, Florida, September 9, 1999

NCEAS, Ecological Stoichiometry Working Group, June 1, 1999

Department of Rangeland Ecology and Management, Texas A+M University. April 6, 1999.

Department of Environmental Sciences, University of California, Santa Barbara. March 19, 1998

Department of Biological Sciences, University of Nebraska. March 12, 1998

Department of Biology, University of Pittsburgh. February 26, 1998

Department of Zoology, University of Washington. February 3, 1998

Department of Ecology and Evolutionary Biology, Rice University. January 26, 1998

Department of Biology, University of New Mexico. October 9, 1996

Department of Biology, University of Pittsburgh. October 4, 1995

Palazzo dei Vini, Florence, Italy. June 10, 1992

Trentino DOC, Milan, Italy. June 8, 1992

Department of Horticulture, University of Minnesota. January 29, 1992

Department of Fruit and Vegetable Science, Cornell University. March 13, 1991

### **MEETING PRESENTATIONS:**

(in every case the first author listed was the presenter unless otherwise noted)

Lu XM, Ding JQ, Siemann E, M. He, H. Wei, J. Ding. Climate warming increases non-target effects of a biocontrol agent on a native species. International Congress of Entomology, Orlando FL, 2016.

Ding, J, Lu XM, Siemann E. Climate warming affects biological control by shifting interactions of invasive plants and insects. International Congress of Entomology, Orlando FL, 2016.

Siemann E, Henriksen J, Lu XM, Ding JQ. Predicting the impacts of biological control agents under climate change. International Congress of Entomology, Orlando FL, 2016 [featured symposium presentation]

Meza-Lopez MM, Siemann E. Nutrient enrichment increases invasions, but warming has weak effects. ERN National Conference in STEM. Washington, DC, 2015

Meza-Lopez MM, Siemann E. Warming has weak effects on exotic plants, but nutrient enrichment favors exotic plants. SACNAS 2014.

Meza-Lopez MM, Siemann E. Nutrient enrichment and plant interactions influence native and exotic plant communities, but they were unaffected by climate warming. ESA 2014, Sacramento, CA.

Siemann E, Carrillo J, Huang W, Wang Y, Ding JQ. Interactions of plants with insects in their native and introduced ranges ESA 2013, Austin TX.

Liu, G, Siemann E, Peng S. Nutrient addition amplifies salinity-dependent differences in competitive ability of invasive and native vines. ESA 2013, Minneapolis, MN.

Zhang L, Zou JW, Siemann E. Perennial forb invasions of annual grassland vary in their enhancement of soil carbon flux and carbon pools. ESA 2013, Minneapolis, MN.

Meza-Lopez MM, Siemann E. Climate warming and nutrient enrichment increases invasive plant competitive ability and invasive apple snail reproduction (*Pomacea maculata*) in native wetland communities. ESA 2013, Minneapolis, MN.

Meza-Lopez MM, Siemann E. *Pomacea insularum* facilitates *Alternanthera philoxeroides* invasion but there is no evidence of invasional meltdown in wetland communities. 2013 Emerging Researchers National (ERN) Conference - first in the Ecology, Environmental and Earth Sciences secition Oral Presentations.

Meza-Lopez MM, Siemann E. *Pomacea insularum* facilitates *Alternanthera philoxeroides* invasion but there is no evidence of invasional meltdown in wetland communities. Gordon conference - plant herbivore interactions, February 2013, Ventura CA.

- Meza-Lopez MM, Siemann E. *Pomacea insularum* facilitates *Alternanthera philoxeroides* invasion but there is no evidence of invasional meltdown in wetland communities. ESA 2012, Portland OR.
- Gabler CA, Siemann E. How ontogenetic niche shifts in the moisture tolerances of an exotic tree influence its invasion dynamics. ESA 2012, Portland OR [Siemann=presenter].
- Carrillo J, Wang Y, Ding JQ, Klootwyk K, Li B, Fu S, Zou JW, Siemann E. Biotic interactions and decreased indirect defense in the invasive tree, *Triadica sebifera*. ESA 2012, Portland OR.
- Meza-Lopez MM, Siemann E. Exotic herbivore limits plants while nutrients increase herbivore size. 2012 Emerging Researchers National (ERN) Conference in STEM, Atlanta GA [winner best Ecology poster].
- Gabler, C, Siemann E. Predicting variable reinvasion pressure in restorations of exotic-plant invaded ecosystems: Field-testing a new model emphasizing propagule pressure and abiotic variation. 2011 SWS SE meerting, Lafavette, LA.
- Ding, JQ, Huang W, Wang Y, Wheeler GS, Carrillo JA, Siemann E. Evolutionary interactions between the invasive tallow tree and herbivores: implications for biological control. 13th International Symposium on Biological Control of Weeds, September, 2011, Waikoloa, Hawai'i.
- Wang Y, Siemann E, Wheeler GS, Zhu L, Gu X, Ding JQ. Genetic variation in anti-herbivore chemical defenses in an invasive plant. 13th International Symposium on Biological Control of Weeds, September, 2011, Waikoloa, Hawai'i.
- Siemann E, Carrillo J, Gabler C, Ding JQ, Huang W, Wang Y, Zou JW, Ling Z, Li B, Yang Q, Yang Z, Shen H, Fu S. Aboveground and belowground enemies and the invasion success of plants: Experimental tests in the US and China. ESA. 2011. Austin TX.
- Ding, JQ, Huang W, Wang Y, Wheeler GS, Carrillo JA, Siemann E. Evolved resistance to specialist and generalist herbivory as revealed by quantitative and qualitative defence in the invasive tallow tree. ESA, 2011, Austin TX.
- Chen J, Peng S, Siemann E. Competitive control of an exotic mangrove: Restoration of native mangrove forests by altering light availability. ESA, 2011, Austin TX.
- Meza-Lopez M, Siemann E. Exotic invertebrate herbivores limit aquatic plants while nutrient enrichment increases exotic herbivore size. ESA, 2011, Austin TX.
- Gabler C, Siemann E. Predicting variable reinvasion pressure in restorations of exotic-plant invaded ecosystems: Field-testing a new model emphasizing propagule pressure and abiotic variation. ESA, 2011, Austin TX.
- Gabler C, Siemann E. Predicting variable reinvasion pressure in restorations of exotic-plant invaded ecosystems: Field-testing a new model emphasizing propagule pressure and abiotic variation. SER 2011, Merida Mexico.
- Chen J, Peng S, Siemann E. Competitive control of an exotic mangrove: Restoration of native mangrove forests by altering light availability. SER 2011, Merida Mexico.
- Ding J, Wang Y, Huang W, Wheeler GS, Siemann E. Novel interactions of invasive plants and herbivores: Implications for classical biological control. Entomological Society of America Annual Meeting, December 2010. San Diego, CA.
- Huang W, Siemann E, Wheeler GS, Zou JW, Carrillo J, Ding JQ. Resource allocation to defense and growth are driven by different responses to generalist and specialist herbivory in an invasive plant. Entomological Society of America Annual Meeting, December 2010, San Diego, CA.
- Ding JQ, Wang Y, Huang W, Zou JW, Wheeler GS, Carrillo J, Siemann E. Novel biotic interactions may impede success of biological weed control: a case study of the invasive tallow tree, *Triadica sebifera*. 2010 Biological Control for Nature Conference, Riverside, CA
- Meza-Lopez M, Siemann E. Nutrient enrichment effects on invasive aquatic plants and invertebrate herbivores, SACNAS, 2010, Los Angeles.
- Meza-Lopez M, Siemann E. Nutrient enrichment effects on invasive aquatic plants and invertebrate herbivores, ESA, 2010, Pittsburgh.
- Meza-Lopez M, Siemann E. Nutrient enrichment effects on invasive aquatic plants and invertebrate herbivores, SWS, 2010, Salt Lake City.
- Gabler C, Siemann E. Soil moisture and propagule availability drive reinvasion pressure during restorations of exotic-dominated wetlands: can we use these factors to predict restoration outcomes? SWS, 2010, SLC, UT.
- Carrillo JA, Siemann E. Biogeographic pattern of induced, indirect defense in native and invasive populations of Chinese tallow tree, *Triadica sebifera*, ESA 2009, Albuquerque, NM.
- Gabler C, Siemann E. Impacts of management methods and native and exotic propagule availability on restoration outcomes in a formerly invaded freshwater wetland after three years. ESA 2009, Albuquerque, NM.
- Siemann E, Carrillo J, Ding JQ. Using resource competition models to predict the ability of biocontrol agents to limit the ecological success of their host plants. ESA 2009, Albuquerque, NM.
- Gabler C, Siemann E. Factors affecting recruitment of invasive Chinese tallow tree in restored wetlands: Evidence of ontogenetic niche shifts and the effects of water regime, competition and nutrient availability, SWS, 2009, Wadison, WI.
- Gabler C, Siemann E. Impacts of management methods and invasive plants on biodiversity, ecosystem function, and successional trajectories in a Texas freshwater marsh restoration after one year. SWS 2008, Wash.DC.
- Barajas M, Carrillo J, and Siemann E. Interactions between indirect plant defenses in cultivated cotton (Gossypium

- hirsutum).AGEP Summer Research Banquet, 2008.
- Jones S. Carrillo J, Horn K, Siemann E. Queen adoption between social types of the red imported fire ant (*Solenopsis invicta*). AGEP Summer Research Banquet, 2008.
- Soltero E, Horn K, Carrillo J, Siemann E. The effects of diet on aggression in rasberry crazy ants (*Paratrechina sp. n. pubens*) AGEP Summer Research Banquet, 2008.
- Quintanilla M, Gabler C, Carrillo J, Siemann E. How do environmental factors influence Chinese tallow tree (*Triadica sebifera*) recruitment in restored habitats? AGEP Summer Research Banquet, 2008.
- Park IW, DeWalt SJ, Siemann E, Rogers WE. Effects of overwinter conditions on Chinese Tallow germination along a coastal-inland gradient in South Carolina. Ecological Society of America, 2007, San Jose CA.
- Gabler C, Siemann E. Impacts of management methods and invasive plants on biodiversity, ecosystem function, and successional trajectories in a Texas freshwater marsh restoration after one year. TX SER, 2007, Lubbock.
- Siemann E. Chinese tallow response to Hurricane Rita in the Neches River Bottom (plenary talk). Big Thicket Science Conference, 2007, Beaumont, TX.
- DeWalt SJ, Rogers WE, Siemann E. Geographic distribution of genetic variation in introduced populations of Chinese tallow tree. Ecological Society of America, 2006, Memphis, TN.
- Nijjer S, Rogers WE, Siemann E. Soil feedbacks influence an invasive species in a temperate forest community. Ecological Society of America, 2006, Memphis, TN
- Siemann E, DeWalt SJ, Rogers WE, Zou JW. Effects of biotic interactions on Chinese Tallow Tree invasions. Association of Tropical Biology and Conservation, 2006, Kunming, China..
- Zou JW, Rogers WE, Siemann E. Increased competitive ability and herbivore susceptibility in the invasive plant *Sapium sebiferum* Association of Tropical Biology and Conservation, 2006, Kunming, China.
- Nijjer S, Rogers WE, Siemann E. Impacts of fertilization on mycorrhizal allocation and effectiveness in Western Gulf Coast grasslands. Texas Academy of Sciences, March 2, 2006, Beaumont, TX.
- Siemann E. How do herbivores and plant traits influence the success of an invasive plant species: experimental tests with *Sapium* on multiple continents, plenary talk, Interagency Invasive Species PI Meeting, 2005, Washington, D.C.
- Siemann E, Rogers WE, DeWalt SJ. Rapid adaptation of an invasive plant and its insect herbivores. Interagency Invasive Species PI Meeting, 2005, Washington, D.C.
- Hartley, MK, Grace J, Allain L, Rogers WE, Siemann E. Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation, Interagency Invasive Species PI Meeting, 2005, Washington, D.C. [presenter was Siemann]
- DeWalt SJ, Rogers WE, Siemann E. Genetic reconstruction of the introduction of Chinese Tallow tree to the United States, SEEPAGE Meeting, 2005., Greenville, N.C.
- Siemann E, Rogers WE. Do genetic differences in growth and defense contribute to the success of an invasive plant species: Intra- and inter-continental comparisons. Ecological Society of America, 2004, Portland, OR.
- DeWalt S, Siemann E, Rogers WE. Genetic reconstruction of the introduction of Chinese tallow tree to the United States. Ecological Society of America, 2004, Portland, OR.
- Donahue C, Rogers WE, Siemann E. Restoring an invaded prairie: Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seed germination. Ecological Society of America, 2004, Portland, OR.
- Donahue C, Rogers WE, Siemann E. Effects of *Sapium sebiferum* (Chinese tallow tree) Mulch on Seed Germination -- Restoring an Invaded Prairie Texas Society for Ecological Restoration, 2004, Clear Lake, TX.
- Hartley, M, Rogers WE, Siemann E. A comparison of arthropod assemblages on native trees versus the introduced Chinese tallow (*Sapium sebiferum*). Ecological Society of America, 2004, Portland, OR.
- Nijjer S, Rogers WE, Siemann E. Mycorrhizal effects on the growth of five native tree species and the invasive *Sapium sebiferum*. Ecological Society of America, 2004, Portland, OR.
- Rogers WE, Siemann E. Chinese tallow tree invasions of Texas coastal prairie: Effects of fire, fertility and herbivores. Ecological Society of America, 2004, Portland, OR.
- Weisser WW, Siemann E. Models of insect herbivory and ecosystem productivity. Ecological Society of America, 2004, Portland, OR.
- Butterfield BJ, Rogers WE, Siemann E. 2004. Growth of Chinese tallow tree (*Sapium sebiferum*) and four native trees along a water gradient. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. (winner of best undergraduate research presentation).
- Donahue C, Siemann E, Rogers WE. Effects of *Sapium sebiferum* (Chinese tallow tree) mulch on seedling germination -restoring an invaded prairie. Society for Ecological Restoration, Austin, TX, November 2003.
- Hartley MK, Rogers WE, Siemann E. A comparison of arthropod assemblages on native trees versus the introduced Chinese Tallow (*Sapium sebiferum*). SER, Austin, TX, November 2003.
- Butterfield BJ, Siemann E, Rogers WE. Growth of Chinese tallow and four native species along a water gradient. Big Thicket Science Conference. October 2003.
- Nijjer S, Rogers WE, Siemann E. Mycorrhizal fungi may influence Chinese Tallow Tree invasions in East Texas Forests. Big Thicket Science Conference. October 2003
- Hartley MK, Rogers WE, Siemann E. A comparison of arthropod assemblages on native trees versus the

- introduced Chinese Tallow (Sapium sebiferum). Big Thicket Science Conference. October 2003
- Siemann E, Rogers WE. Large-scale experimental tests of recruitment limitation and Chinese Tallow Tree invasions, Plenary Talk, Big Thicket Science Conference, October 2003
- Rogers WE, Siemann E. Post-introduction evolutionary increases in the competitive ability of an invasive tree are negated by herbivores from its native range. ESF Workshop on Biological invasions in terrestrial ecosystems: an evolutionary perspective, Halle, Germany, 2002. (Highlighted presentation in Trends in Ecology and Evolution 17(12):545-546)
- Siemann E. Ecological and evolutionary effects of herbivores on plant invasions, Ecological Society of Germany, Austria and Switzerland, Cottbus, Germany, 2002 (invited symposium talk).
- Siemann E. Gulf Coast Region Climate Change Report. Ecological Society of America, workshop on UCS/ESA regional climate change reports, 2002, Tucson, AZ.
- Siemann E, Rogers WE. Large-scale experimental tests of recruitment limitation and alien plant invasions. Ecological Society of America, 2002, Tucson, AZ.
- Rogers WE, Siemann E. Escaping the "to grow or defend" dilemma of plants: an explanation for the invasive success of an exotic tree species. Ecological Society of America, 2002, Tucson, AZ.
- Lankau R, Rogers WE, Siemann E. Effects of light and flooding on the invasion of *Sapium sebiferum* into coastal prairies, Ecological Society of America, 2002, Tucson, AZ.
- Hartley MK, Grace J, Allain L, Rogers WE, Siemann E. Responses of prairie arthropod communities to fire: balancing plant and arthropod conservation, Ecological Society of America, 2002, Tucson, AZ.
- Lankau R, Rogers WE, Siemann E. 2002. The role of native generalist herbivores in Chinese tallow tree (*Sapium sebiferum*) invasions into coastal prairie. Natural Sciences Undergraduate Research Symposium, Rice University, Houston, TX. (winner of best undergraduate research presentation).
- Fagan WF, Siemann E, Mitter CM, Denno RF, Huberty AF, Woods HA. Nitrogen in insects: Implications for trophic complexity and species diversification. Society for Integrative and Comparative Biology. [published as Integrative and comparative biology. 2002. 42 (6): 1228-1228]
- Siemann E, Rogers WE. Evolution of increased competitive ability in an invasive tree species. Society for Conservation Biology, 2001, Hilo, HI.
- Rogers WE, Siemann E, Grace J. Fire, fertility, and herbivore effects on Chinese tallow (*Sapium sebiferum*) invasion of coastal prairie. Society for Conservation Biology, 2001, Hilo, HI.
- Rogers WE, Siemann E. Effects of herbivory and resources on Chinese tallow (*Sapium sebiferum*) invasion of native coastal prairie. Ecological Society of America, 2001, Madison, WI.
- Lankau R, Siemann E, Rogers WE. The role of native generalist herbivores in Chinese Tallow Tree (*Sapium sebiferum*) invasions into coastal prairie. Ecological Society of America, 2001, Madison, WI.
- Siemann E. Chinese Tallow Invasion in Prairies and Forests: Using Ecology to Develop New Methods of Control, Wildlife Habitat Council, 2000, Baltimore, MD.
- Siemann E, Rogers WE. Does lack of herbivory and disease explain the success of an alien plant species: Experimental tests. Ecological Society of America, 2000. Snowbird, UT.
- Rogers WE, Siemann E. Interactive effects of resources and herbivory on tree growth: Experimental tests using a native and an invasive exotic species. Ecological Society of America, 2000. Snowbird, UT.
- Rogers, WE, Siemann E. Chinese Tallow Tree invasion: the role of resources. Big Thicket Science Conference. Beaumont, TX, October 1999.
- Siemann E, J. Brown. Gaps in mammalian body size distributions reexamined. Ecological Society of America, 1999, Spokane, WA.
- Lankau R, Siemann E, Rogers WE, Leibold M, Brown J. Predator to prey species ratios: the roles of species richness and primary productivity. Keck Center Undergrauate Research Training Program, Baylor College of Medicine, August 1999.
- Siemann E, Haarstad J, Tilman D. Arthropod diversity in experimental grassland ecosystems. Ecological Society of America, 1997, Albuquerque, NM
- Symstad, A.J., Siemann E, Haarstad J. An experimental test of the relationship between plant and arthropod functional composition. Ecological Society of America, 1997, Albuquerque, NM
- Siemann E. Experimental tests of the relationships among productivity, heterogeneity and diversity. Ecological Society of America, 1996, Providence, RI
- Siemann, Haarstad J, Tilman D. Insect diversity in oak savannahs at Cedar Creek, Minnesota. Symposium:

  Dynamics of Temperate and Tropical Savannahs, Department of Forest Resources, University of Minnesota,
  May 6, 1996
- Siemann E, Tilman D, Haarstad J. Diversity and trophic structure of an insect community: patterns across time and space. Ecological Society of America, 1995, Snowbird, UT
- Siemann E, Tilman D, Haarstad J. Diversity, abundance and body size: relationships and patterns from an insect community. Ecological Society of America, 1994, Knoxville, TN

#### **GRANTS:**

"Bioremediation of printing press wastewater using algae" [Privately held company], \$203,923, 3/1/16-2/28/17, PI

- (along with PI Meenakshi Bhattacharjee).
- "Above-ground and below-ground regulation networks of exotic invasive plants and responses to climate warming", NSF-China, collaborating foreign scientist.
- "REU supplement: Aboveground and belowground enemies and the invasion success of plants: experimental tests in the US and China", NSF, \$7,500, 5/15/12-7/30/13, sole PI.
- "DISSERTATION RESEARCH: Biotic controls of the ecology and evolution of plant growth and defense", NSF, \$14,786, 4/15/2011-4/14/2014, co-PI.
- "REU supplement: Aboveground and belowground enemies and the invasion success of plants: experimental tests in the US and China", NSF, \$7,500, 5/15/11-4/30/12, sole PI.
- "Evolved defense to herbivory in Chinese tallow", NSF-China, collaborating foreign scientist.
- "Invasive plant VOCs and their impact on herbivores", China 973 Program, NSF-China, 2011-2015, collaborating foreign scientist.
- "The Innovative Foreign Talents Introduction Program on Biological Research for National Key Discipline of Agricultural Resources and Environment", China Ministry of Education & State Administration of Foreign Experts Affairs, 2011-, International Cooperating Professor.
- "REU supplement: Aboveground and belowground enemies and the invasion success of plants: experimental tests in the US and China", NSF, \$15,000, 5/15/10-4/30/11, sole PI.
- "DISSERTATION RESEARCH: Predicting Restoration Outcomes In Exotic-Invaded Ecosystems", NSF, \$15,000, 6/1/09-5/30/11, co-PI.
- "Aboveground and belowground enemies and the invasion success of plants: experimental tests in the US and China", NSF, \$445,925, 8/1/08-7/31/14, sole-PI (senior personnel: Dr. Ding [Wuhan Botanical Garden], Drs. Fu, Ye and Shen [South China Botanical Garden], Dr. Li [Fudan University], Dr. Zou [Nanjing Agricultural University]).
- "Early Career: Acquisition of shared basic biogeochemistry facilities at Rice University". \$100,000, NSF (co-PI, PI=Masiello)
- "REU supplement: Aboveground and belowground enemies and the invasion success of plants: experimental tests in the US and China", NSF, \$15,000, 5/1/10-4/30/11, sole-PI.
- "Tolerance of the invasive alligator weed, *Alternanthera philoxeroides* to biotic and abiotic stresses". NSF-China, 2009-2011, collaborating foreign scientist.
- "Ivory Billed Woodpecker Assessment 2006/2007", FWS, \$12,000, 5/1/07-9/1/07, subcontract [vegetation assessment], sole-PI.
- "Does herbivory on an invasive tree species along a biogeographic gradient depend on time since introduction?", USDA 2003-35320-13498, \$195,000, 9/01/03 8/31/08, head-PI, co-PI: Rogers WE.
- "Do genetic differences in growth and defense contribute to the success of an invasive plant species: experimental tests", NSF DEB-0315796, \$390,000, 8/01/03-7/31/07, head-PI, co-PI: Rogers WE.
- "SGER: The effect of preexisting differences in invasive plant abundance on the impacts of hurricane Rita on east Texas bottomland hardwood forests", NSF DEB-0602483, \$47,933, 11/1/05-6/30/07, sole PI.
- "Applied conservation biology –combining a class project with development of a draft conservation plan", Houston Arboretum, \$10,200, 1/1/05-6/1/05, sole PI.
- "REU Supplement: Do genetic differences in growth and defense contribute to the success of an invasive plant species: experimental tests", NSF, \$7,775, 5/15/04-08/15/04, head-PI, co-PI: Rogers WE.
- "Chinese tallow invasions into the endangered coastal prairie: causes and consequences", EPA R82-8903, \$388,385, 06/01/01 05/31/04, head-PI, co-PIs: Rogers WE and J.B. Grace (NWRC, USGS).
- "REU Supplement: Does lack of herbivory and disease explain the success of an exotic plant species: experimental tests", NSF, \$5,000, 05/31/00-08/30/00, head-PI, co-PI: Rogers WE.
- "REU Supplement: Does lack of herbivory and disease explain the success of an exotic plant species: experimental tests", NSF, \$6,000, 05/31/01-08/30/01, head-PI, co-PI: Rogers WE.
- "REU Supplement: Does lack of herbivory and disease explain the success of an exotic plant species: experimental tests", NSF, \$6,000, 05/31/02-08/30/02, head-PI, co-PI: Rogers WE.
- "Chinese Tallow Tree: methods of control in floodplain forests", National Park Service, \$40,000, 1/01/00-12/31/01, head-PI, co-PI: Roy Zipp.
- "Chinese Tallow Tree: methods of control in floodplain forests", National Park Service, \$10,000, 6/01/02-10/01/02, head-PI, co-PI: Rogers WE.
- "A vascular plant inventory for Big Thicket National Preserve", NPS, \$117,711, 02/01/01 03/01/04, co-PI, head-PI: P.A. Harcombe, co-PI: Rogers WE.
- "Does lack of herbivory and disease explain the success of an exotic plant species: experimental tests", NSF DEB-9981654, \$290,788, 05/31/00-04/30/04, head-PI, co-PI: Rogers WE.

#### Pending:

- "Center for Applied Algal Research", [Privately held company], \$5,700,000, PI (along with co-PI Meenakshi Bhattacharjee), status: signed contract awaiting first tranche of funding
- "INFEWS/N/P/H2O: Re-envisioning wastewater treatment plants as biosynthesis factories for upcycling nutrients

for sustainable feed production", NSF, \$329,378, co-PI (along with co-PI Meenakshi Bhattacharjee and PI Lauren Stadler). status: under review

### External fundraising:

The Shell Center for Sustainability, \$3,500,000, 6/02 - 6/17, one of 12 core faculty.

Graduate student fellowship support for EEB, \$100,000, December 2013

# Internal competitive funds:

"Effects of anthropogenic nutrient enrichment and climate change on invasion success and impacts on native freshwater communities", Shell Center for Sustainability, 5/1/12-4/30/13, \$17,866, co-PI (PI=Maria Meza-Lopez).

Brown Teaching Innovation Award, \$5,000, FY 2007; \$5,000, FY 2008

International travel award, \$7,000, FY 2007; \$4,000, FY 2008

"The effects of variations in temperature and precipitation on woody invasions into endangered coastal prairies", EESI, \$7,000, 7/1/-7-7/1/08, sole-PI.

Graduate Recruiting Initiative, Research and Graduate Studies, \$6,000, FY 2001; \$4,500, FY 2002; \$6,000, FY 2003; \$4,000, FY 2004

"Invasive species control in floodplain forests: seeking a economically viable means of conserving native biodiversity", Shell Center for Sustainability, \$35,000, 11/01/03-6/30/05, head-PI, co-PIs: Rogers WE, D. Sawyer.

## **TEACHING EXPERIENCE:**

### **Rice University:**

teaching for 2016/2017

EBIO 306 Independent Undergraduate Research

EBIO 316 Field Ecology Lab (taught or co-taught 12 times)

EBIO/BIOC 329/529 Animal Biology & Physiology

EBIO 403/404 Undergraduate Honors Research in EEB

EBIO 541 & EBIO 542 Lab Meetings

EBIO 569 Graduate Core Course in Ecology and Evolutionary Biology (co-created course, co-taught 9 times - 3 lectures of 28)

EBIO 800 Graduate Research

## courses taught previously

BIOS 202 Introductory Biology (taught 2 times); BIOS/EBIO 306 Independent Undergraduate Research; BIOS 310 Independent Undergraduate Research; BIOS 323 Conservation Biology (created course, taught 4 times); BIOS/EBIO 325 Ecology (taught 5 times); EBIO 326 Insect Biology (taught 1 time); BIOS 327 Biodiversity Lab (taught 1 time); BIOS 327 Biodiversity Lab (contributing faculty member - leading the tree inventory group on Bioblitz - 3 times); BIOS 401/402 Undergraduate Honors Research; BIOS/EBIO 403/404 Undergraduate Honors Research; BIOS 541 Topics in Plant Physiological Ecology (taught 1 time); BIOS 541 Topics in Plant Physiological Ecology (taught 1 time); BIOS 541 Topics in Insect Diversity (taught 1 time); BIOS 541 Lab meetings; EBIO 555 Wolf Conservation (created course, taught 1 time); BIOS 563 Topics in Ecology (taught 10 times); BIOS 568 Topics in Biological Diversity (created course, taught 7 times); BIOS 585/586 Graduate Seminar in Ecology and Evolution; BIOS 591 Supervision of Graduate Teaching; BIOS/EBIO 800 Graduate Research; EBIO 270/570 Ecosystem Management (co-created course, co-taught 5 times), EBIO 366/566 Applied phycology (co-created course, co-taught 2 times), EBIO 368 Applied phycology lab (co-created course, co-taught 2 times); ARCH 317/617 Landscape and site strategies for Houston – (guest lecturer - 9 years); Continuing Studies: Biodiversity: A Wildlife and Ecosystem Necessity (co-organized course plus 1 lecture of 7); FWIS 187 Science and History of Houston's Bayous – (guest lecturer - 3 years)

# **University of Minnesota:**

Co-Lecturer and Co-Course Coordinator: Introduction to Ecology (non-majors)

Teaching Assistant: General Biology [4 times], Ecology (majors) [3 times], Introduction to Ecology (non-majors), Theoretical Population Ecology

## **Cornell University:**

lab coordinator: Viticulture

## **GRADUATE STUDENTS AND POST-DOCS:**

### Advisor:

current EEB PhD:

Siao "Thomas" Ye, 2014-present

#### EEB PhD:

Maria Meza-Lopez, PhD 2015 "Nutrient enrichment and climate warming effects on invasions and native

freshwater wetland communities"

post-doc, UC Irvine

Juli Carrillo, PhD 2013 "Specificity in the ecology and evolution of plant defense against herbivores: Identity and history"

Assistant Professor, University of British Columbia

Christopher Gabler, PhD 2012 "Restoration ecology of ecosystems invaded by *Triadica sebifera*: theory and practice"

Assistant professor, University of Texas Rio Grande Valley

Jianwen Zou, PhD 2007 "Shifts in traits of the invasive plant *Sapium sebiferum* and their effects on ecosystem carbon and nitrogen processes"

Professor and Vice-Dean of Academic Affairs, Nanjing Agricultural University

Maria Hartley, M.S. (non-thesis) 2002, PhD. 2006 "Insect community response to Chinese Tallow (*Sapium sebiferum*)"

Environmental Advisor, Chevron

Somereet Nijjer, PhD 2006 "Understanding belowground community regulation in an invaded forest" Quality assurance, Shell

## EEB M.A. (with thesis):

Katherine Horn, M.A.2009 "Examining competitive interactions between Rasberry crazy ants (*Paratrechina sp. nr. pubens*) and red imported fire ants (*Solenopsis invicta*) using laboratory and field studies"

Environmental Consultant, HUCO, Houston TX

Amy Johnson, M.A. 2006 "An investigation of the allelopathic potential of Chinese tallow tree (*Sapium sebiferum*)"

Teacher in CT

Joe Hinton, M.A. 2006 "Red wolf (*Canis rufus*) home range, habitat use, and pup attendance during the pup rearing season"

Post-doc, University of Georgia

Candice Donahue, M.A. 2004 "Restoring a prairie: testing effectiveness of Chinese Tallow Tree (*Sapium sebiferum*) mulch to reduce seedling emergence"

Analyst, Thermon; (Director, Armand Bayou Nature Center 2004-2008)

## EEB M.S. (without thesis - as terminal degree)

Joshua Hwang, 2012-2014

## Visiting PhD Student:

Leiyi "Jenny" Chen, 2010-2011, visiting from Sun-Yat Sen University, Guangzhou, China *Scientist, Institute of Botany, CAS* 

Qiang Yang, 2011-2012, 2013, visiting from Fudan University, Shanghai, China Assistant Professor, Lanzhou University

Ling Zhang, 2012-2013, visiting from Nanjing Agricultural University, Nanjing, China Assistant Professor, Jiangxi Agricultural University

Gang Liu, 2012-2013, visiting from Sun-Yat Sen University, Guangzhou, China post-doc, Shaanxi Normal University

Hong Wang, 2013-2015, visiting from Nanjing Agricultural University, Nanjing, China Assistant Professor, Anhui Science and Technology University

#### post-doc:

William Rogers, post-doc 1998-1999

Professor, Texas A&M

Steve Hovick, post-doc, 2009-2010

Assistant Professor, Ohio State University

## visiting scholar:

Yi Wang, visiting from Wuhan Botanical Garden, 2012-2013

post-doc, Louisiana State University

Leiyi "Jenny" Chen, 2013, visiting from Chinese Institute of Botany, Beijing, China

Xinmin Lu, visiting from Wuhan Botanical Garden, 2014-2015

Professor, Huazhong Normal University

Co-Advisor (non-thesis Professional Master of Science in Environmental Analysis and Decision Making):

matriculated 2016: Ankur Shah (S16), Demeris Burritt, Sarah Hussain, Brittany Nicholson, Fabiana Toro Figueira, Zhiruo Zhou

matriculated 2015: Divya Chandran, Alejandro Ly, David Moore, John Pederson, Sawyer Johnson, Ziwei Zhou matriculated 2014: Rebecca Neal

matriculated 2012: Debora Berhane-Mersha, Tiandu Zhang

M.S. 2016: Taylor Barnum, Joao Coimbra, Christy Flatt, David Lach, Rong Liu, Celso Magarao Costa, Lindsey Roche, Priya Singh

M.S. 2015: Anthony Atto, Alison Campestre, Venkata Maitreyi Chintalapati, Ling Chuang, Patrick Clegg, Michelle Espin Bahamonde, Jessie Fan, Courtney Hale, Cheng-Yin Liu, Karina Subieta, Daini Wang

M.S. 2014: Alan Chen, Dongfei Chen, Jessica McKenna, Carlos Solano, Stephen Truch, Qingyi Zhao, Lijue Yiping Zhu

M.S. 2013: Sara Goshorn, Jiao Li, Cassandra Lopez, Megan Weintraut

M.S. 2012: Aditya Banerjee, John McDougal, George Doubleday, Neha Kathayat, Jayshree Srinivasan

M.S. 2011: Brian Crimmins, Chris Campbell, Ester Rios Rivera, Reshmy Mohanan, Shilpi Desai

M.S. 2010: Alexander Wagner, Isabel Croes, Jeffrey Rudnik, Scott Rauschhuber, Ying Liu, Jennifer Andjelich

M.S. 2009: Joseph Olear, Nada Ahmed

M.S. 2008: Rachelle Petrovik, Takumi Shiraishi

M.S. 2007: Daniel Mills, Matt Slezak, Myriam McChargue

M.S. 2006: Avanti Tamhane, Ellice Lin, Sarah Mason, Varun Anand

M.S. 2005: Andrea Crumpacker, Christine Robichaud, Christy Mak, Iain Cowie

M.S. 2004: Bill Schleizer, Doug Thompson, Natalie Irwin

### Committee:

Emily Schulze (PhD expected 2018)

Brad Ochocki (PhD expected 2017)

Lukas Bell-Dereske (2010-2012 - transfer to UNM)

Anny Chung (2011-2012 - transfer to UNM)

Onja Razafindratsima (PhD 2015)

Jeff Ahern (PhD 2012)

Andrea Clements (PhD, 2012)

Kerri Crawford (PhD, 2011)

Brittany DeLoach McCall, M.S. 2011, (University of Houston)

A.J. Davitt, M.A., 2010

Scott Chamberlain, M.A, 2009

Chuan-Kai Ho, PhD 2008, (University of Houston)

Juan Jimenez, PhD 2008, (University of Houston)

James Cronin, PhD 2006, (University of Pittsburgh)

Lisa Mann, M.A. 2006

Cristiano Salgado, M.S. 2004 (University of Houston)

Jie Lin, PhD 2001

Eva Toth, PhD 2001

Michael Henshaw, PhD 2000

## Supervisor:

William Rogers (Huxley Postdoctoral Fellow, 1999-2003)

Professor, TX A&M

Saara DeWalt (Huxley Postdoctoral Fellow, 2003-2005)

Associate Professor, Clemson University

## SERVICE:

# Non-university:

Subject Editor, Oecologia, 2012-present

Board of Directors, Galveston Bay Foundation, 2010-present

Conservation Advisory Board, Memorial Park Conservancy, 2014-present

Biodiversity Monitoring Plan, Advisor, City of Houston Parks Department, 2016

Project review team, Jena Experiment, German Science Foundation, September 2015

Co-organizer and co-sponsor, People+Nature Conference, October 2015

Poster judge, paper judge, ESA meeting, Austin, TX 2011.

Biological Sciences Program Review Committee, Fudan University, 2010

Board of Directors, Houston Arboretum, 2005-2008

Stewardship Advisory Board, Armand Bayou Nature Center, 2004-2008

Science Advisory Board, Katy Prairie Conservancy, 2004-2008

Panel Member, NSF Ecology, Fall 2008

Associate Editor, Ecology, 2005-2007

Session moderator, Big Thicket Science Conference, 2007.

Merit Badge Instructor, Boy Scouts [Bird Study, Fish &Wildlife Management, Mammal Study, Insect study, Reptile

and Amphibian Study] 2005, 2006

Publications Committee, 4th Big Thicket Science Conference, 2005-2006

Clear Lake High School Research Program, Mentor, 2005-2006

Strand editor "Interdependence of Life and Environmental Systems" for the Biology Online project developed by Baylor College of Medicine to prepare grades 8-12 science teachers to teach in the life sciences.

Panel Member, USDA NRICGP - Biology of Weedy and Invasive Plants, Spring 2002.

Reviewer for: Agroforestry Systems, Agronomy, Algae, American Midland Naturalist, American Naturalist, American Philosophical Society, Annals of Botany, Applied Soil Ecology, Aquatic Invasions, Army Corps of Engineers, Austral Ecology, Basic and Applied Ecology, Biodiversity and Conservation, Biological Control, Biological Invasions, Bioscience, BMC Ecology, Bulletin of the Torrey Botanical Society, Community Ecology, Czech Science Foundation, Diversity and Distributions, Dutch Science Foundation, Ecography, Ecological Applications, Ecological Entomology, Ecological Monographs, Ecological Research, Ecology, Ecology Letters, Ecoscience, Ecosphere, Ecosystems, Environment, Development and Sustainability, Environmental Institute of Houston competitive grants program, Estuaries and Coasts, Evolutionary Applications, European Journal of Wildlife Research, Food Webs, Forest Ecology and Management, Frontiers in Ecology, Functional Ecology, Global Change Biology, Global Ecology and Biogeography, GWIS, Harris County Highway Dept., Heredity, Icelandic Science Foundation, Insect Conservation and Diversity, International Journal of Ecology, Journal of Biogeography, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Ecology, Journal of Evolutionary Biology, Journal of the Kansas Entomological Society, Journal of Plant Ecology, Journal of Plant Nutrition and Soil Science, Journal of Vegetation Science, National Fish and Wildlife Foundation, National Geographic Society, National Science Foundation [Ecology, EPE, Geography and Regional Science RUI, Population Biology], Natural Environment Research Council (UK) [Terrestrial Sciences Peer Review Committee], Naturwissenschaften, New Phytologist, NOAA, Oecologia, Oikos, , Pedobiologia, Plant Ecology, Plant and Soil, PLOS 1, Proceedings of the Royal Society of London B, Restoration Ecology, Revista Colombiana de Entomología, Science, Science Advances, Soil Biology & Biochemistry, Southwestern Naturalist, Swiss Science Foundation, Texas Journal of Science, Tree Physiology, USDA [NRICGP - Biology of Weedy and Invasive Plants], U.S.-Israel Binational Science Foundation, Weed Technology

Publications chair - 3<sup>rd</sup> Big Thicket Science Conference, 2002-2004

Editor, Texas Journal of Science, Big Thicket Science Conference Special Issue, 2004

Session Chair, ESA meetings, 1999

Union of Concerned Scientists/Ecological Society of America Committee on ecological impacts of climate change on the Gulf Coast region, 2000-2001

Advisor, United States Marine Corps - developing a Chinese Tallow Tree control program for Paris Island, 2003. Policy Advisor on Climate Change 2002-2003: Texas Governor (Perry), Texas Department of Agriculture, Texas House of Representatives Committee on Environmental Regulation, Texas Lt. Governor (Ratliff), Texas House of Representatives - Speaker (Laney), Tony Sanchez for Governor Campaign, TNRCC, Houston Mayor (Brown), Harris County Judge Eckels, Collin County Judge Harris, Senator Ken Bentsen

## **Rice University:**

# <u>current:</u>

Professional Master's (M.S.) degree in Environmental Analysis & Decision-Making (EADM), co-director, 2003-present

Education Certification program, advisor for Life Science and Biology content areas, 2010-present Master of Arts in Teaching & Teacher Education, advisor for Life Science and Biology content areas, 2010-present

Shell Center for Sustainability, Oversight Committee, 2002-2006, 2008-present

Environmental Science, major advisor (EBIO concentration), transfer credit advisor (EBIO concentration), Advisory Committee, 2016-present

Environmental Studies, Faculty Steering Committee, 2015-present

Graduate Council, 2014-present

Will Rice College, Faculty Associate, 1999-present

Rice Wildlife Conservation Club, faculty sponsor, 2015-present

Rice Boxing Club, faculty sponsor, 2013-present

EEB Graduate Student Association, faculty sponsor, 2006-present

Center for Applied Algal Research, academic director, 2014-present

Bicycle safety committee, 2013-present

Advance Associate Professor mentoring program, 2014-present

Will Rice College, undergraduate mentor, 2015-present

RWCC spring break service trip to Mission Wolf [Westcliffe CO], faculty leader, 2016, 2017

# within past 5 years:

Rice Alumni Trip, "National Parks & Lodges of the Old West", faculty participant and lecturer, 2016

Faculty Information System (FIS), Focal Group, 2014-2016

Center for Energy and Environmental Research in the Human Sciences, academic working group, 2014-2015 Master of Arts in Teaching & Teacher Education, Advisory committee, 2012-2014

Working group to create Environmental Science major, 2015-2016

Southern Association of Colleges and Schools - Commission on Colleges (SACSCOC), participant in Onsite Review for Reaffirmation of Accreditation. 2016

VISION dinner (program for students who are academically talented and ethnically diverse), faculty attendee, 2016

COLL 107, Introduction to Astrobiology (student instructor= James Henriksen), faculty sponsor, Fall 2015 Presidential Advisory Committee for Quality Enhancement Plan (QEP) for SACSCOC reaffirmation of accreditation. 2015

Gulf Coast Undergraduate Research Symposium, session chair, 2015

Will Rice College, O-week dinner host, 1999, 2000, 2001, 2002, 2003, 2015, 2016

Graduate Honor Council, 2015

Empowering Leadership Alliance (ELA - engages underrepresented minority students in computing disciplines), faculty mentor, 2013-2015

COLL 189, Introduction to Astrobiology (student instructor= James Henriksen), faculty sponsor, Spring 2015

Environmental and Energy Systems Institute, member, 2002-2014

Center for the Study of Environment and Society, member, 2001-2014

Alternative Spring Break [Mission Wolf - Westcliffe CO], faculty advisor, 2013-2014

Faculty Senate, working group on grade inflation and honors, co-chair, 2013-2014

Undergraduate mentor program, 2011-2014

NSF ADVANCE "Negotiating the ideal faculty position" Workshop, departmental representative, 2006-2014 Admit day, class presenter, 2013

Faculty Senate, working group on grade inflation and honors, 2009-2012

Advance TRIAD faculty mentoring program, 2011-2012

### more than 5 years ago:

Faculty Senate, senator for Natural Sciences, 2006-2009; presidential appointee 2009-2010

Faculty Senate, Nominations and Elections Committee, 2010

Faculty Senate, working group on athletic admissions, 2006-2010

Faculty Senate, working group on the Honor Council, chair, 2008-2010

Rice/Baylor College of Medicine (BCM) Merger Review Committee, 2009-2010

AGEP [Alliances for the Graduate and Educational Professoriate] Summer program (1 graduate student - Maria Meza-Lopez, 1 undergraduate students - Erica Solis), mentor, 2010

AGEP Summer program (2 graduate students - Juli Carrillo, Maria Meza-Lopez, 3 undergraduate students - Marilu Corona, Summer Jones, Erica Solis), mentor, 2009

Institutional Animal Care and Use Committee (IACUC), member 2005-2007, Vice-chair 2007-2009

Rice/BCM faculty advisory committee, 2008-2009

RiceLeaders cohort 3, 2008-2009

AGEP Summer program (1 graduate student - Juli Carrillo, 4 undergraduate students - Matt Barajas, Summer Jones, Max Quintanilla, Erica Solis), mentor, 2008

Natural Sciences Divisional Advisor (advises students before major declaration in 4<sup>th</sup> semester), Will Rice College, 2000-2008, (freshmen 2000, 2001, 2002, 2004; sophomores, 2001, 2002, 2003, 2005, 2007, 2008)

RICEOWLS (on-campus program for admitted students), EEB co-representative, 2008

Dean of Natural Sciences Search Committee, 2007-2008

Dean's lecture series speaker, 2008

Biosciences Curriculum Committee, 2001-2008

Faculty Senate, working group on academic calendar, chair, 2007-2008

AGEP Summer program (1 graduate student - Juli Carrillo, 1 undergraduate student - Rene Flores), Mentor, 2007 Southern Association of Colleges and Schools (SACS), Biology Degrees reaffirmation of accreditation group, 2005-2007

Energy and Environmental Systems Institute, Advisory Board, 2001-2007

Science and Engineering Deans leadership workshop, EEB representative, 2007

University Research Council, 2002-2007

Owl Week Natural Science Panel, 2007

Quality Enhancement Plan (QEP) committee for SACS reaffirmation of accreditation, 2005-2006

Shell Center for Sustainability, 2002-2006

Rice Alumni Trip, "Discover Southeast Alaska", faculty participant and lecturer, 2005

Remote Sensing Group of the Rice Space Institute 2001-2003

Rice Undergraduate Research Symposium, Judge, 2003

Energy and Environmental Systems Institute Executive Director Search Committee, 2002

Alumni College Lecturer, 2002

Rice Undergraduate Scholars Program, mentor, 2001 (Rick Lankau)

University Committee on Online Graduate Applications, 2000

AGEP, Executive Committee, 1999-2004

Diversity Graduate Program in Science and Engineering, mentor, (Chanda Jones, TX A+M, Corpus Christi), summer 1999

Undergraduate Research Training Program in Computational Biology, mentor, (Rick Lankau, Rice University), summer 1999

Owl Weekend (program for admitted students), departmental representative, 1999

Baker College, Faculty Associate, 1998-1999

## Rice EEB Dept:

Department Chair, 2009-2014

Director of Graduate Studies, 1999-2006

Co-director of Graduate Studies, 2006-2007

Major advisor, 2006-2012

Transfer credit advisor, 2006-2012

Junior Faculty Mentor, Nat Holland 2003-2010, Jenn Rudgers 2005-2011, Ken Whitney 2005-2011, Volker Rudolf 2007-2013, Amy Dunham 2009-2014

Search Chair and acting Dept. Chair for Assistant Professor hire, 2009 [Dunham]

Greenhouse Committee, chair 1998-2002, 2006-2009

Department Ombudsman, 2008-2009

Internal Reviewer for Holland Promotion, 2009

EEB undergraduate curriculum committee, chair, 2006-2008

EEB TA committee, 2007-2008

EEB graduate curriculum committee, chair, 2006-2008

Graduate Student Assessment Committee, chair, 2005-2007

Chairs Leadership Conference, acting chair, 2008

Assistant Professor of Ecology Search Committee, search chair and acting dept. chair for search, 2006-2007 [Rudolf]

Webmaster, 2002-2006

Department Coordinator Interview Committee, 2006

Huxley Instructor Search Committee, 2005 [Okuyama]

Assistant Professor of Ecology Search Committee, search chair and acting dept. chair for search, 2004-2005 [Rudgers & Whitney]

Department Coordinator Interview Committee, 2005

Vice Chair, Fall 2004

Department Administrator Interview Committee, 2003, 2004

Assistant Professor of Ecology Search Committee, chair, 2002-2003 [Holland]

Huxley Instructor Search Committee co-chair, 2002-2003 [DeWalt]

Rice Prairie Committee. 1999-2002

Departmental Seminar Coordinator, 1999-2002

Department Chair Search Committee, 2000-2001

Assistant Professor of Evolution Search Committee, 1999-2000 [Meffert]

Huxley Instructor Search Committee, chair, 1999 [Rogers]

# Rice Biosciences Dept:

Greenhouse committee, 2015-present

EEB Graduate Recruitment and Evaluation Committee, 2015-present

Biosciences Awards Committee, 2014-present

SACSCOC-ROARS Biosciences Degrees Group, 2014-2016

Junior Faculty Mentor, Tom Miller, 2014-2016

Anderson biology building teaching lab renovations planning group, 2015-2016

Task force on graduate education, 2014-2015

Initiative for Students Committee, 2015-2016

EEB Program Undergraduate Committee, 2014-2016