

J. Ryan Stewart

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Education

- 1999 B.S., Agricultural Systems Technology (major), Korean (minor), Utah State University, Logan, Utah
- 2001 M.S., Plant Sciences, Utah State University, Logan, Utah
Thesis: Growth and water relations of balled-and-burlapped littleleaf lindens during establishment in precision-irrigated Kentucky bluegrass and buffalograss sod.
- 2005 Ph.D., Horticulture, Iowa State University, Ames, Iowa
Dissertation: Ecophysiology and population genetics of *Frangula caroliniana* (Walt.) Gray (Rhamnaceae)

Professional Experience

- 2005-present Assistant Professor, Dept. of Natural Resources and Environmental Sciences, University of Illinois
- 2001-2005 Research Assistant, Dept. of Horticulture, Iowa State University
- 1999-2001 Research Assistant, Dept. of Plants, Soils, and Biometeorology, Utah State University

Awards / Memberships / Affiliations / Honors / Service

— Awards —

Plant Sciences Institute Fellowship, Iowa State University, 2001 to 2005
Elva Acklam and Arvil L. Stark Scholarship, Utah State University, 1999 to 2001
University Club Scholarship, Utah State University, 1992 to 1993, 1995 to 1998

— Memberships —

American Society for Horticultural Science
Korean Society for Horticultural Science
International Society for Horticultural Science
Midwest Ecological Landscaping Association
North American Colleges & Teachers of Agriculture

— Affiliations —

Center for East Asian and Pacific Studies, University of Illinois

— Honors —

Graduated Cum Laude from Utah State University, May 1999
Phi Kappa Phi, inducted spring 2000
Gamma Sigma Delta, inducted spring 2003
Pi Alpha Xi, inducted spring 2005

Global Academy Scholar, College of Agricultural, Consumer, and Environmental Sciences, University of Illinois

— *Service* —

Associate Editor, 27th International Horticulture Congress, Korean Society for Horticultural Science, Seoul, Korea, 2005-present
 Editorial Board Member and Reviewer of the Journal of the Korean Society for Horticultural Science, 2005-present
 Scholarship Committee of the American Society for Horticultural Science, 17 April 2006-
 Seminar Committee of the Department of Natural Resources and Environmental Sciences, September 2005-
 Steering Committee of the Center for Advanced Study 2007-2008 Initiative, Science and Technology in the Pacific Century

Publications

— *Refereed publications* —

- Knight, K.S., J.S. Kurylo, A. Endress, J.R. Stewart, and P.B. Reich. 2006. Ecology and ecosystem impacts of common buckthorn (*Rhamnus cathartica*): A review. *Biological Invasions* *accepted for publication*.
- Stewart, J.R. and W.R. Graves. 2006. Photosynthesis, growth, carbon allocation, and fruit load of *Frangula caroliniana* and *Rhamnus cathartica*. *International Journal of Plant Sciences* *accepted for publication*.
- Stewart, J.R., W.R. Graves, and R.D. Landes. 2006. Cold hardiness and vernal bud break of *Rhamnus caroliniana* and the invasive *Rhamnus cathartica*. *J. Amer. Hort. Sci.* 131:345-351.
- Stewart, J.R. and W.R. Graves. 2005. Seed germination of *Rhamnus caroliniana*: Implications for ecology and horticulture. *HortScience* 40:767-770.
- Stewart, J.R., R. Kjelgren, P.G. Johnson, and M.R. Kuhns. 2005. Growth and water relations of littleleaf linden trees established in irrigated buffalograss and Kentucky bluegrass. *HortScience* 40:1529-1533.
- Stewart, J.R. and W.R. Graves. 2004. Photosynthesis and growth of *Rhamnus caroliniana* during drought and flooding: Comparisons to the invasive *Rhamnus cathartica*. *HortScience* 39:1278-1282.
- Stewart, J.R., R. Kjelgren, P.G. Johnson, and M.R. Kuhns. 2004. Soil-water-use characteristics of precision-irrigated buffalograss and Kentucky bluegrass. Online. *Appl. Turfgrass Sci.* doi:10.1094/ATS-2004-1118-01-RS.

— *Non-refereed publications* —

- Stewart, J.R. 2005. The phylogenetics and stress tolerance of *Rhamnus cathartica* L. p. 37-41. *In* L. Skinner (ed.) Proceedings: symposium on the biology, ecology, and management of garlic mustard (*Alliaria petiolata*) and European buckthorn (*Rhamnus cathartica*). 17-18 March 2005. University of Minnesota, St. Paul. USDA Forest Service Publication FHTET-2005-09.

Presentations

— *Presentations at Professional Meetings* —

- Stewart, J.R., W.R. Graves, and R.D. Landes. 2005. Cold hardiness and budbreak of two buckthorn species. *HortScience* 40:1130.
- Stewart, J.R. and W.R. Graves. 2004. Seed recalcitrance of Carolina buckthorn: Implications for ecology and horticulture. *HortScience* 39:787.
- Stewart, J.R. and W.R. Graves. 2004. Photosynthesis, growth, and water-use efficiency of Carolina buckthorn: Comparisons to the invasive common buckthorn. *HortScience* 39:883.
- Stewart, J.R. and W.R. Graves. 2002. Photosynthesis and growth of Carolina buckthorn (*Rhamnus caroliniana* Walter) during drought and flooding: Comparisons to the invasive common buckthorn (*Rhamnus cathartica* L.). p. 461. *In* Proceeding of the 26th International Horticultural Congress.
- Kjelgren, R. and R. Stewart. 2001. Poplar sap flow measured by thermal dissipation probes as compared to load cells. *HortScience* 36:551.
- Stewart, J.R. and R. Kjelgren. 2000. Detecting incipient water stress in buffalograss and Kentucky bluegrass through foliage temperature using low-cost infrared sensors. *HortScience* 35:467.
- Stewart, J.R., R.K. Kjelgren, and P.G. Johnson. 2000. Effect of precision irrigation on little-leaf linden planted in buffalograss and Kentucky bluegrass. p. 119. *In* Agronomy abstracts. ASA, Madison, WI.

— *Invited Talks* —

- The phylogenetics and stress tolerance of *Rhamnus cathartica* L. Biology, ecology, and management of garlic mustard and European buckthorn. A two-day workshop. University of Minnesota, St. Paul campus. 17-18 March 2005.
- The ornamental and invasive traits of the *Rhamnus* and *Frangula* genera (Rhamnaceae): Implications for ecology and horticulture. Presented at the Floriculture Research Division of the National Horticulture Research Institute of the Rural Development Administration, Suwon, South Korea. 28 July 2006.
- The ornamental and invasive traits of the *Rhamnus* and *Frangula* genera (Rhamnaceae): Implications for ecology and horticulture. Presented to the Faculty of Bioscience and Industry in the College of Applied Life Sciences of Cheju National University, Cheju, South Korea. 6 August 2006. (Presented the seminar in the Korean language.)
- Horticulture at the University of Illinois. Presented at the Division of Biotechnology in the College of Life Sciences and Biotechnology of Korea University, Seoul, South Korea. 11 August 2006. (Presented the seminar in the Korean language.)
- Exploration of the connection between horticulture and invasive plants and its implications for ecology and policy. Diabetes and obesity from an integrative standpoint: Health, education, economics, environmental sciences, and natural resources. A symposium held at the College of Medicine of the Autonomous University of San Luis Potosi, Mexico. 3 October 2006.

Grants Funded

- Cold hardiness and resistance to water stress of *Fraxinus anomala* Torr. ex. S. Wats. (single-leaf ash). 2004. Landscape Plant Development Center. \$1000.00.

Is transplanted tree mortality due to mechanical damage or to dessication during transport? 2006.
Tree Research and Education Endowment Fund. \$7500.00.

Pettay, A. and J.R. Stewart. Seasonal effects of soybean aphid herbivory and development on the physiology of common buckthorn. 2006. College of Agricultural, Consumer, and Environmental Sciences Undergraduate Research Scholarship Program. \$998.64.

Teaching Experience

— *University of Illinois* —

Plant Propagation	Fall 2006
Plant Environmental Measurement	Spring 2007 (developing course)

— *Iowa State University* —

Publishing in Plant Science Journals	Spring 2004
Guest lecture for Dr. Bill Graves, Dr. Richard Gladon, and Dr. Mike Kelly in HORT 529	
Topic: Use of different graphics software packages for data presentation	

Woody Landscape Plants	Fall 2003
Guest lecture for Dr. Bill Graves in HORT 340	
Topic: Characteristics and landscape value of several members of the Rhamnaceae (buckthorn family)	

Woody Landscape Plants	Fall 2001
Guest lecture for Dr. Bill Graves in HORT 340	
Topic: Characteristics and landscape value of several members of the Oleaceae (olive family)	

Woody Landscape Plants Laboratory	Fall 2001
Graduate teaching assistant for Dr. Bill Graves in HORT 340	
Topics: Identification of characteristics of native and introduced woody plants used in the Upper Midwest and surrounding regions	

— *Utah State University* —

Sustainable Landscaping	Fall 2000
Graduate teaching assistant for Dr. Roger Kjelgren	
Topics: Landscaping economics, ecology, planting, vegetation management, fertilization, and irrigation	

Professional Development

— *Courses* —

College of Agriculture, Consumer, and Environmental Sciences Teaching College Course. 19 August – 10 November 2005. A ten-week, faculty-development program designed to assist faculty members in designing and delivering effective instruction. University of Illinois at Urbana-Champaign.

— *Workshops* —

Case studies in Horticulture. 1 April 2005. A one-day workshop given by Dr. Peg Ertmer of the College of Education at Purdue University. Iowa State University, Ames, Iowa.

College of Agriculture, Consumer, and Environmental Sciences Teaching Enhancement Workshop. Teaching scenarios dealing with classroom issues (i.e., cheating in the classroom and challenging of instructor by students). 7 December 2005. University of Illinois at Urbana-Champaign.

Consulting

Phytokinetics, Inc., North Logan, Utah, May 1999

Topics: Campbell Scientific data logger programming and weather station instrumentation and installation

Phytokinetics, Inc., North Logan, Utah, July 2000

Topics: Campbell Scientific data logger programming and heat dissipation probe installation to measure water use in poplar trees

World Conservation Union/Species Survival Commission, November 2005

Reviewed and edited ecological profile of *Rhamnus alaternus*, an invasive species in New Zealand that is originally from the Mediterranean region.

<<http://www.issg.org/database/species/ecology.asp?si=893&fr=1&sts=sss>>

Extension Experience

4-H Intern, Utah State University Extension Service, State 4-H Activities Coordinator's Office. Responsible for organizing 4-H youth conference and training youth counselors in Ephraim, Utah. Spring 1997.

Intern, Utah State University Extension Service, Sanpete County Office. Responsible for answering questions concerning food safety, gardening, and livestock issues. Designed and built county exhibit for the Utah State Fair. Summer 1997.

Horticulture Intern, Utah State University Extension Service, Utah County Office. Responsible for answering yard and gardening questions. Also assisted County Horticulture Agent with diagnosing plant health problems during house visits. Summer 1998.