

Curriculum Vitae

CHRISTINE J. SMALL, Ph.D.

CONTACT INFORMATION

Biology Department
Radford University
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PROFESSIONAL EXPERIENCE

Associate Professor of Biology. 2007 to present. Department of Biology, Radford University, Radford, Virginia

Assistant Professor of Biology. 2005-2007. Department of Biology, Radford University, Radford, Virginia

Assistant Professor of Botany. 2001-2005. Department of Botany, Connecticut College, New London, Connecticut

EDUCATION

Doctor of Philosophy, Environmental and Plant Biology, *Summa cum Laude.* 2001. Ohio University, Athens, Ohio. Dissertation: Herbaceous Layer Dynamics and Disturbance Response in Mixed Mesophytic Forests of Southeastern Ohio. Advisor: Dr. Brian McCarthy

Master of Science, Botany, *Summa cum Laude.* 1996. North Carolina State University, Raleigh, North Carolina. Thesis: Characterization of Montane Cedar-Hardwood Woodlands in the Piedmont and Southern Blue Ridge Provinces of North Carolina. Minor: Soil Science. Advisor: Dr. Thomas Wentworth

Bachelor of Science, Biology, *Summa cum Laude.* 1993. Christopher Newport College, Newport News, Virginia

TEACHING EXPERIENCE

Radford University, Radford, Virginia (2005-present): Environmental Biology, Human Biology, General Biology I, General Biology II, Ecology and Adaptation, Introductory Biology Seminar, General Botany, Plants and Society, Organismal Biology, Advanced Biology Seminar (Ecological Research in National Parks), Field Botany, Forest and Wetland Ecology, Study Abroad: Tropical Biology, U.S. Virgin Islands (co-instructor)

Connecticut College, New London, Connecticut (2001-2005): Introductory Botany (team-taught), General Ecology, Systematic Botany and the Local Flora, Ecology of Terrestrial and Wetland Plant Communities, Seminar (Plant Community Response to Disturbance)

Ohio University, Athens, Ohio (1997-2001): *Teaching Assistant / Laboratory Instructor:* Quantitative Methods in Biology, Plant Systematics, Trees and Shrubs, Wildflowers, Introduction to Plant Biology, Introductory Biology, World of Plants

North Carolina State University, Raleigh, North Carolina (1994-1996): *Laboratory Instructor:* Introductory Botany, Introductory Ecology

Duke University, Durham, North Carolina (1993): Teaching Assistant / Laboratory Instructor:
Advanced Soil Science

**Christopher Newport University, Newport News, Virginia (1991-1993): Peer Instructor /
Teaching Assistant:** Introductory Biology, Introductory Soils, General Chemistry

PEER-REVIEWED PUBLICATIONS (*Undergraduate research student)

- Ness*, G., Chamberlain, J.L., **Small, C.J.** (in prep.). Developing a predictive model for above-ground / below-ground biomass relationships in black cohosh, a southern Appalachian medicinal plant.
- Francel, K.E., **Small, C.J.** (in press). Short-term fire effects on small mammal communities and habitat structure at Caldwell Fields, Montgomery Co., Virginia. *Journal of Fish and Wildlife Management*.
- Small, C.J.**, Chamberlain, J.L., Mathews*, D.S. 2011. Recovery of black cohosh (*Actaea racemosa* L.) following experimental harvests. *American Midland Naturalist* 166:339-348.
- Small, C.J.**, White, D.C., Hargbol*, B. 2010. Allelopathic influences of the invasive tree of heaven (*Ailanthus altissima*) on a native and a non-native herb. *Journal of the Torrey Botanical Society* 137:366-372.
- Francel, K.E., Faidley*, C.R., **Small, C.J.** 2010. Salamander use of karst sinkholes in Montgomery County, Virginia. *Southeastern Naturalist* 9:35-46.
- Small, C.J.**, McCarthy, B.C. 2010. Seed bank variation under contrasting site quality conditions in mixed oak forests in southeastern Ohio, USA. *International Journal of Forestry Research* 2010: 1-13.
- Wojdak, J., Guinan, J., Wirgau, J., Kugler, R., Hammond, G., **Small, C.**, Manyara, C., Singer, F., Watts, C., Bodo, B., Baldwin, A. 2010. University facilities as real-world foci of multidisciplinary science learning. *Journal of College Science Teaching*. 39:8-16. [2010 Editor's Choice, *Plant Science Bulletin* 56(2); 2011 Bronze Award, EXCEL Competition, Association Media & Publishing]
- Kelly*, A.B, **Small, C.J.**, Dreyer, G. 2009. Vegetation classification and invasive species distribution in natural areas of southern New England. *Journal of the Torrey Botanical Society* 136: 500-519.
- Small, C.J.** 2008. Ecology of a constructed stormwater treatment wetland. Laboratory Curriculum Module, RU Stormwater Remediation Wetland Project, National Science Foundation Curriculum Adaptation and Implementation Grant. <http://www.radford.edu/~wetland/>.
- Small, C.J.** 2007. Plant & algal productivity in the Radford University Stormwater Treatment Wetland. Biology Laboratory Curriculum Module, National Science Foundation (NSF) Curriculum Adaptation and Implementation Grant. <http://www.radford.edu/~biol-web/wetland%20website/modules.htm>.
- Small, C.J.** 2006. *Herbaceous Layer Ecology* [book review]. *Diversity and Distributions* 12: 222-223.
- Small, C.J.**, McCarthy, B.C. 2005. Relationship of understory diversity to soil nitrogen, topographic variation, and stand age in an eastern oak forest, USA. *Forest Ecology and Management* 217: 229-243.
- Small*, M.J., **Small, C.J.**, Dreyer, G.D. 2005. Changes in hemlock-dominated forests following woolly adelgid infestation in southern New England. *Journal of the Torrey Botanical Society* 132: 458-470.
- Lundgren*, M., **Small, C.J.**, Dreyer, G.D. 2004. Influence of land use and site characteristics on invasive plant abundance in the Quinebaug Highlands of southern New England. *Northeastern Naturalist* 11: 313-332.
- Small, C.J.**, McCarthy, B.C. 2003. Spatial and temporal variability of herbaceous vegetation in an eastern deciduous forest. *Plant Ecology* 164: 37-48.
- Small, C.J.**, McCarthy, B.C. 2002. Effects of simulated post-harvest light availability and soil compaction on deciduous forest herbs. *Canadian Journal of Forest Research* 32: 1753-1762.
- Small, C.J.**, McCarthy, B.C. 2002. Spatial and temporal variation in the response of understory vegetation to disturbance in a Central Appalachian Oak Forest. *Bulletin of the Torrey Botanical Society* 129: 136-153.
- Small, C.J.**, McCarthy, B.C. 2001. Vascular flora of the Waterloo Wildlife Research Station, Athens County, Ohio. *Castanea* 66: 363-382.
- McCarthy, B., **Small, C.J.**, Rubino, D. 2001. Composition, structure, and dynamics of Dysart Woods, an old-growth mixed mesophytic forest of southeastern Ohio. *Forest Ecology and Management* 140: 193-213.
- Small, C.J.**, Wentworth, T.R. 1998. Characterization of Montane Cedar-Hardwood Woodlands in the Piedmont and Southern Blue Ridge Provinces of North Carolina. *Castanea* 63: 241-261.

OTHER PUBLICATIONS

Peer-reviewed species descriptions, published online on: *Animal Diversity Web*, University of Michigan, Museum of Zoology (<http://animaldiversity.ummz.umich.edu>)

- Alvarez*, M., Wiley*, M., **Small, C.J.** 2011. *Phyllobates terribilis* (golden poison frog)
Azzi*, M., Garrison*, R., **Small, C.J.** 2011. *Aythya fuligula* (tufted duck)
Baker*, H., Grubb*, J., **Small, C.J.** 2011. *Geochelone pardalis* (leopard tortoise)
Barksdale*, R., Simpson*, R., **Small, C.J.** 2011. *Anas flavirostris* (speckled teal)
Berces*, M., Moore*, P., **Small, C.J.** 2011. *Atheris squamigera* (green bush viper)
Blanchet*, C., **Small, C.J.** 2011. *Antaresia perthensis* (anthill python)
Cooper*, L., Jackson*, J., **Small, C.J.** 2011. *Acrochordus granulatus* (little file snake)
Crawford*, C. **Small, C.J.** 2011. *Anolis carolinensis* (green anole)
Desta*, T., **Small, C.J.** 2011. *Gavia arctica* (Arctic loon)
Ferguson*, M., Mullins*, S., **Small, C.J.** 2011. *Pseudacris regilla* (Pacific tree frog)
Goetting*, A., Testerman*, M., **Small, C.J.** 2011. *Callisaurus draconoides* (zebra-tailed lizard)
Ingram*, B., Williams*, E., **Small, C.J.** 2011. *Bothriopsis bilineata* (two-striped forest pitviper)
Lubeskie*, M., **Small, C.J.** 2011. *Cacicus cela* (yellow-rumped cacique)
McHugh*, L., Hughes*, K., **Small, C.J.** 2011. *Chironectes minimus* (water opossum)
McNaught*, A., Tucker*, R., **Small, C.J.** 2011. *Brachycephalus ephippium* (pumpkin toadlet)
Jackson*, J., Mengestab*, M., **Small, C.J.** 2011. *Aquila pomarina* (lesser spotted eagle)
Pagett*, L., Hughes*, K., **Small, C.J.** 2011. *Marmota himalayana* (Himalayan marmot)
Rabago*, D., Bower*, J., **Small, C.J.** 2011. *Ardea cinerea* (grey heron)
Rayburn*, K., **Small, C.J.** 2011. *Caiman latirostris* (broad-snouted caiman)
Reich*, N., Sorenson*, A., **Small, C.J.** 2011. *Milvus migrans* (black kite)
Sinnott*, K., **Small, C.J.** 2011. *Bothriechis schlegelii* (eyelash pit viper)
Vining*, H., Boyd*, P., **Small, C.J.** 2011. *Campylopterus hemileucurus* (violet sabrewing hummingbird)
Weber*, M., **Small, C.J.** 2011. *Amblyomma cajennense* (Cayenne tick)
Yezek*, T., Hintz, B., **Small, C.J.** 2011. *Pseudacris streckeri* (Strecker's chorus frog)

USDA Forest Service. 2010. A study of the sustainable harvesting of black cohosh, US Forest Service Southern Research Station National Agroforestry Center and Radford University Department of Biology. [Online video] . <<http://www.srs.fs.usda.gov/video/cohosh/>>.

White, D.C. and **Small, C.J.** 2010. Invaders helping invaders: does allelopathy favor non-native species? *Newsletter of the Association of Education and Research Greenhouse Curators*.

Small, C.J. 2004. Passion-flower and *Heliconius* butterfly. *Newsletter of CT Botanical Society* 32 (2): 6-8.

Small, C.J. 2003. What has become of Scrophulariaceae (the Figwort family)? *Newsletter of CT Botanical Society* 31 (2): 8-9.

Small, C.J. 2002. A new link to the origins of Angiosperms. *Newsletter CT Botanical Society* 30 (3): 11.

Small, C.J. 2002. A new link to the origins of Angiosperms. *Chinquapin* 10 (4): 29.

Small, C.J. 2002. An editorial review of the *Flora of the Northeast: A Manual of the Vascular Flora of New England and Adjacent New York*. *Newsletter of CT Botanical Society* 30 (1-2): 9.

Small, C.J. 2002. Dynamic fields and forests: reflections on summer research. *Newsletter of the Goodwin-Niering Center for Conservation Biology and Environmental Studies at CT College*. Fall: 1,3.

Small, C.J. 2002. Giant Hogweed in Connecticut. *Chinquapin* 10(4): 28.

GRANTS (*Undergraduate research student)

- 2011-2014. National Science Foundation (NSF) Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES) Program Grant. SUMS4BIO: Strengthening Undergraduate Mathematics and Statistics Education for Biologists. Senior Personnel. \$199,176
2011. Radford University Multi-Disciplinary Faculty Research Grant. Terra2B: Development and scenario testing of a GIS-based model of Appalachian agroecosystems management. \$17,700.
2011. Faculty Research Program Grant, Radford University. Recovery of black cohosh, a southern Appalachian medicinal plant, following harvest. \$7,300.
2011. USDA Forest Service, Southern Research Station. Developing a conservation management plan for black cohosh (*Actaea racemosa*), a southern Appalachian medicinal plant. \$1,800.

2011. Radford University Faculty Research Program Grant. Recovery of black cohosh, a southern Appalachian medicinal plant, following harvest. \$7,300.
2010. USDA Forest Service, Southern Research Station. Sustainable harvesting of black cohosh (*Actaea racemosa*), a southern Appalachian medicinal plant. \$1,800.
2010. NSF Research in Undergraduate Institutions Grant. Karst sinkholes: historical and contemporary refugia for biodiversity? (resubmission; co-authors: K. Francl, R. Sheehy). \$495,897 (not funded).
2010. Radford University Faculty Summer Scholarship Grant. Southern Appalachian medicinal plants: investigating the sustainability of current wild harvesting practices. \$7,307.
2009. USDA Forest Service, Southern Research Station. Sustainable harvesting of black cohosh. \$1,100.
2009. NSF Research in Undergraduate Institutions Grant. Karst sinkholes: historical and contemporary refugia for biodiversity? (co-authors: K. Francl, R. Sheehy). \$346,899 (not funded).
- 2008-2009. VA Academy of Science Small Project Research Grant. Classification of the ecological communities of the Selu Conservancy, Montgomery County, VA. \$1,240.
- 2008-2009. Radford University Faculty-Student Collaborative Grant. Classification of the ecological communities of the Selu Conservancy. \$750.
2008. Radford University Seed Grant. Learning beyond the classroom: Integrating multidisciplinary natural history investigations into the undergraduate curriculum (co-author: K. Francl). \$27,946.
2008. Radford University Faculty Summer Scholarship Grant. Classification of the ecological communities of the Selu Conservancy, Montgomery County, VA. \$5,000.
- 2007-2008. Radford University Faculty-Student Collaborative Grant. Habitat use by small mammals in natural areas of southwest VA (co-author: K. Francl). \$750.
2007. Radford University Faculty-Summer Scholarship Grant. Vegetation and small mammal communities of the Selu Conservancy, Montgomery County, VA. \$14,399.
- 2006-2007. Radford University Faculty-Student Collaborative Grant. Relationship of site conditions and land-use history to the distribution of non-native invasive plant species in southwestern VA. \$750.
2006. Radford University Faculty Summer Scholarship Grant. Distribution of non-native invasive plant species in natural areas of the Selu Conservancy. \$5,190.
2006. Radford University Grant Supporting Faculty Reassigned Time. Geographic Information Systems (GIS) mapping of invasive plant species at the Selu Conservancy. (1 course release).
- 2005-2006. American Association for University Women Educational Foundation Short-Term Research Publication Grant. \$6,000 (not funded).
- 2002-2004. CT Department of Environmental Protection. Use of prescribed burning in the restoration of a regionally rare pitch pine sand plain, Hopeville Pond State Park, Griswold, CT. \$3,000.
2004. Andrew W. Mellon Foundation, Student-Faculty Research Partnership Grant. Vascular flora of the West Farms Land Trust Avery Tract, Waterford, CT. \$3,000.
2004. Connecticut College Center for Teaching and Learning Workshop Development Grant, Teaching Scientific Writing (co-author: L. Cornick). \$2,000.
2004. Connecticut College Hodgkins Faculty Support Fund. Geographic Information Systems Across the Curriculum, Middlebury College, VT (travel grant). \$301.
2004. National Oceanic and Atmospheric Administration (NOAA). Ecological and physical effects of the removal of two low head dams (co-authors: M. Carabetta (PI), J. Turek, L. Wildman). \$80,260.
2004. Connecticut College R.F. Johnson Faculty Development Fund. Fifty years of vegetation change in the CT College Arboretum (presentation grant, Ecological Society of America). \$1,200.
- 2002-2003. CT Chapter, The Nature Conservancy. Impacts of white-tailed deer and invasive non-native plants on natural vegetation of the Burnham Brook Preserve, East Haddam, CT. \$2,000.
2003. Connecticut College Hodgkins Faculty Support Fund. Conservation and Research Foundation Annual Meeting, Shelburne, VT (travel grant). \$300.
2003. Connecticut College R.F. Johnson Faculty Development Fund. Publication grant. \$750.
2003. RI and CT Chapters, The Nature Conservancy. Impacts of invasive exotic plants in the Pawcatuck Borderlands Natural Management Area. \$5,000.
2002. Connecticut College Hodgkins Faculty Support Fund. Publication grant. \$550.
2002. Connecticut College Hodgkins Faculty Support Fund. Advanced GIS and Remote Sensing, Conservation and Research Center, Smithsonian National Zoological Park, Front Royal, VA. \$485.

2002. Connecticut College Hodgkins Faculty Support Fund. Conference on Shrublands and Early-Successional Forests in the Northeastern US, University of NH, Durham (travel grant). \$375.
2002. Connecticut College R.F. Johnson Faculty Development Fund (travel grant). \$850.
2002. Connecticut College Arboretum Student Research Support. Resampling long-term vegetation transects (1952-2002) in the Bolleswood Natural Area, New London, CT. \$12,000.
2001. Connecticut College Hodgkins Faculty Support Fund. Impact of white-tailed deer and invasive non-native plants on natural vegetation of the Burnham Brook Preserve, East Haddam, CT. \$400.
2001. Connecticut College R.F. Johnson Faculty Development Fund. Impact of white-tailed deer and invasive plants on natural vegetation of the Burnham Brook Preserve, East Haddam, CT. \$325.
2000. Ohio University John Houk Memorial Research Grant. Influence of site quality and disturbance on central Appalachian deciduous forests (presentation grant). \$355.
2000. Ohio Biological Survey. The influence of soil nitrogen on plant species composition and diversity in an oak-hickory forest of southeastern OH. \$500.
1999. Ohio Biological Survey. Survey of seed bank and aboveground vegetation in mature and reorganizing forest stands of southeastern OH. \$250.
1998. *Sigma Xi* Grant-in-Aid of Research. Effects of post-harvest light and soil compaction on understory plants in a central Appalachian deciduous forest. \$595.
1998. Ohio University John Houk Memorial Research Grant. Recovery of herbaceous understory vegetation following clearcut harvesting in an eastern deciduous forest. \$541.
1998. Ohio Biological Survey. Survey of the vascular flora of Waterloo Wildlife Experimental Station, Athens County, OH. \$500.
1995. Charles W. Ash Memorial Scholarship. Characterization of Montane Cedar-Hardwood Woodlands in Piedmont and southern Blue Ridge Provinces of NC. \$300.
1995. Grant in Aid, Highlands Biological Station. Characterization of Montane Cedar-Hardwood Woodlands in the southern Blue Ridge Provinces of NC. \$2,200.
1995. North Carolina State University Student Research Assistance. Characterization of Montane Cedar-Hardwood Woodlands in the Piedmont and southern Blue Ridge Provinces of NC. \$1,200.

PROFESSIONAL AWARDS

2011. *Donald N. Dedmon Distinguished Teaching Professor Award, Radford University*
- 2008-2009. *Keenan Fellow, National Tropical Botanical Garden, The Kampong, Coconut Grove Fellowship for College Biology Professors*
- 2007, 2010. *Nominee, Donald N. Dedmon Distinguished Teaching Award, Radford University*
1998. *Sigma Xi International Research Society, invited member*
1996. *Phi Kappa Phi National Honor Society, invited member*
- 1998-1999. *Donald Clippenger Graduate Research Fellowship, OH University*
1997. *Honorable Mention, Eugene P. Odum Outstanding Presentation Award. Ecological Society of America / Association of Southeastern Biologists joint annual meeting, Greenville, SC*
1996. *National Science Foundation Graduate Research Trainee, University of KY*
1995. *Charles Ash Memorial Scholarship, Highlands Biological Foundation, NC*
1993. *Dean's Award, College of Science and Technology, Christopher Newport University, VA*
1993. *Departmental Honors in Biology, Chemistry, and Environmental Science, Christopher Newport University, VA*

PROFESSIONAL DEVELOPMENT

2011. *Strengthening Undergraduate Mathematics and Statistics Education for Biologists, RU Biology workshop*
2010. *Student Learning Outcomes and Assessment, RU Biology workshop*
2009. *Strategies for Teaching Quantitative Skills in Biology Courses, RU Biology workshop*
2007. *Strategies for Teaching Reading and Writing in Biology Courses, Radford University Biology Quality Enhancement Plan Implementation Grant workshop*
2005. *Introduction to ArcGIS 9.1, an ESRI-certified course, Radford University*
2004. *Geographic Information Systems (GIS) Across the Curriculum, National Institute for Technology and Liberal Education, Middlebury College, VT*

2004. *Teaching Scientific Writing*, CT College. Workshop development (with L. Cornick)
2004. *Teaching Critical Thinking Across the Disciplines*, Faculty workshop, CT College
- 2003-2004. *Using Geographic Information Systems (GIS) Across the Curriculum in the Liberal Arts*. National Institute for Technology and Liberal Education, Invited panelist
2003. *Tempel Summer Institute: Using Web-based Technology to Enhance Student Learning* (two-week course in internet technologies), CT College
2002. *Advanced GIS and Remote Sensing: Measuring Landcover Change and its Impact on Endangered Species*. Smithsonian National Park Conservation and Research Center
- 2001-2004. *C.F. Johnson Faculty Teaching Seminar*, CT College
1996. *Excellence in Teaching, Graduate Student Workshop*, University of KY
- 1994-1995. *North Carolina Vegetation Survey*. Buck Creek Serpentine Barren, Grandfather Mountain, Roan Mountain, and Uwharrie National Forest, NC
1994. *National Park Service Vegetation Monitoring*. Smoky Mountain National Park, TN
1992. *Tropical Ecology and Conservation Foreign Study Program*, Council for International Educational Exchange (CIEE), Monteverde Institute, Monteverde, Costa Rica
1991. *Supplemental Instruction Leader*, Department of Biology, Chemistry, and Environmental Science, Christopher Newport University, VA

PUBLISHED ABSTRACTS / PRESENTATIONS (*Undergraduate research student)

- Ness*, G., Chamberlain, J., Bonner, S., **Small, C.** 2011. Modeling the relationship between below ground and above ground biomass of black cohosh. 2nd Annual Research Showcase & Environmental Seminar Series, University of Kentucky, Lexington, KY.
- Chamberlain, J., **Small, C.J.**, Matthews*, D. 2011. Sustaining black cohosh (*Actaea racemosa* L.) harvests. Southern Appalachian Man and the Biosphere (SAMAB). Asheville, NC.
- Chamberlain, J. **Small, C.J.**, Matthews*, D. 2011. The impact of experimental harvests on black cohosh (*Actaea racemosa* L.). 8th North American Forest Ecology Workshop. Roanoke, VA.
- Creange*, K.E., Francl, K.E., **Small, C.J.** 2011. Quantifying effects of prescribed fire on small mammals and vegetation at Caldwell Fields, Jefferson National Forest. 3 *conferences*: 4th Annual Big South Undergraduate Research Symposium, Washington and Lee University, VA; Winter Meeting of the VA Wildlife Society, Staunton, VA; 19th Annual Student Engagement Forum, Radford University.
- Newtoff*, K., Rogers*, W., **Small, C.J.** 2011. Habitat susceptibility to invasive plant species at Selu Conservancy, southwest VA. 19th Annual Student Engagement Forum, Radford University.
- Brennan*, M.C., **Small, C.J.** 2010. Effects of experimental harvesting on black cohosh, a southern Appalachian medicinal herb. 2 *conferences*: 3rd Annual Big South Undergraduate Research Symposium, Radford University; 18th Annual Student Engagement Forum, Radford University.
- Faulkner*, T., Jayne*, M., Ness*, G., **Small, C.J.** 2010. The effect of trails on tropical dry forest structure on St. John, US Virgin Islands. 18th Annual Student Engagement Forum, Radford University.
- Meikle*, D., Francl, K.E., **Small, C.J.** 2010. Effects of prescribed fire on small mammal communities at Caldwell Fields, Jefferson National Forest. 2 *conferences*: 3rd Big South Undergraduate Research Symposium, Radford University; 18th Annual Student Engagement Forum, Radford University.
- Small, C.J.**, Brennan*, M.C., Chamberlain, J. 2010. Experimental harvesting effects on black cohosh, a southern Appalachian medicinal plant. 71st Annual Meeting of the Association of Southeastern Biologists. Asheville, NC.
- White, D, **Small, C.J.**, Hargbol*, B. 2010. Allelopathic influences of invasive *Ailanthus altissima* on native and non-native herbs. 71st Annual Meeting, Association of Southeastern Biologists. Asheville, NC.
- Francl, K.E., Faidley*, C.R., **Small, C.J.** 2009. Salamander-habitat relationships in karst sinkholes at the Selu Conservancy, Montgomery County, VA. Winter Meeting, VA Wildlife Society, Staunton, VA.
- Mathews*, D., **Small, C.J.**, Chamberlain, J. 2009. Sustainable harvesting of black cohosh, a Southern Appalachian medicinal plant. 2 *conferences*: 2nd Big South Undergraduate Research Symposium, University of NC, Asheville; 17th Annual Student Engagement Forum, Radford University.
- Meikle*, D., Francl, K.E., **Small, C.J.** 2009. Effects of prescribed fire on small mammal communities at Caldwell Fields, Jefferson National Forest. 3 *conferences*: 2nd Annual Big South Undergraduate Research Symposium, University of NC, Asheville; Winter Meeting of the VA Wildlife Society, Staunton, VA; 17th Annual Student Engagement Forum, Radford University.

- Meyer*, B., **Small, C.J.**, Francl, K.E. 2009. Biotic diversity of karst sinkholes at the Selu Conservancy, southwestern VA. *3 conferences*: 2nd Annual Big South Undergraduate Research Symposium, University of NC, Asheville; Winter Meeting of the VA Wildlife Society, Staunton, VA; 17th Annual Student Engagement Forum, Radford University.
- Patton*, M., Francl, K.E., **Small, C.J.** 2009. Summer and winter avian-habitat relationships at Selu Conservancy, Montgomery County, VA. *3 conferences*: 2nd Annual Big South Undergraduate Research Symposium, University of NC, Asheville; Winter Meeting of the VA Wildlife Society, Staunton, VA; 17th Annual Student Engagement Forum, Radford University.
- Small, C.J.**, Meyer*, B., Mathews*, D. 2009. Forest diversity in the southern Appalachians of VA. 4th Annual Faculty-Undergraduate Student Collaborative Grant Symposium, Radford University.
- Faidley*, C.R., Francl, K.E., **Small, C.J.** 2008. Salamander use of karst sinkholes at Selu Conservancy, Montgomery County, VA. Annual meeting of the VA Herpetological Society, Richmond, VA.
- Baisey*, M.T., **Small, C.J.**, Francl, K.E. 2008. Classification of the ecological communities of the Selu Conservancy in southwestern VA. *2 conferences*: 16th Annual Student Engagement Forum, Radford University; 86th Annual Meeting, VA Academy of Science, Hampton University, Hampton, VA.
- Hargbol*, B., **Small, C.J.** 2008. Allelopathic effects of *Ailanthus altissima* on germination and growth of native and invasive plants in southwestern VA. *2 conferences*: 16th Annual Student Engagement Forum, Radford University; 86th Annual Meeting, VA Academy of Science, Hampton University, VA.
- Helton*, A., Francl, K.E., **Small, C.J.** 2008. Examining the relationship of small mammal communities and habitat variables at Selu Conservancy, Montgomery County, VA. *2 conferences*: 16th Annual Student Engagement Forum, Radford University; 18th Annual Colloquium on the Conservation of Mammals in the Southeastern United States. VA Polytechnic Institute, Blacksburg, VA.
- Helton*, A., **Small, C.J.** 2008. Plant and algal productivity in the RU Stormwater Treatment Wetland: a biology laboratory module. 3rd Annual Wetland Symposium, Radford University.
- Munsey*, W.T., Francl, K.E., **Small, C.J.** 2008. Fire impacts on Burris Tract, Jefferson National Forest. *3 conferences*: 18th Annual Colloquium on the Conservation of Mammals in the Southeastern United States, VA Polytechnic Institute, Blacksburg, VA; 16th Annual Student Engagement Forum, Radford University; Winter Meeting of the VA Wildlife Society, Staunton, VA.
- Small, C.J.**, Francl, K.E., Baisey*, M., Helton*, A., Munsey*, W. 2008. Habitat use by small mammals in natural areas of southwestern VA. 16th Annual Student Engagement Forum, Radford University.
- Wirgau, J., Guinan, J., Bodo, B., Wojdak, J., Manyara, C., Hammond, G., **Small, C.**, Singer, F., Watts, C., Baldwin, A. 2008. Radford University Stormwater Wetland as a Real-World Teaching Laboratory. 236th Meeting of the American Chemical Society, Philadelphia, Pennsylvania
- Baisey*, M., Urban*, G., **Small, C.J.**, Francl, K. 2007. The Selu Conservancy: an Undergraduate Research and Teaching Resource at Radford University. Friends of Selu Annual Picnic, Selu Conservancy, Montgomery County, VA.
- Clement*, L.J., **Small, C.J.** 2007. Spatial analysis of invasive plant distribution relative to land use and site conditions at the Selu Conservancy in southwestern VA. *2 conferences*: 15th Annual Student Engagement Forum, Radford University; 85th Annual Meeting of the VA Academy of Science, James Madison University, Harrisonburg, VA.
- Hargbol*, B., **Small, C.J.** 2007. Factors influencing the invasion of *Rosa multiflora* into natural areas of the Selu Conservancy, Southwestern VA. *2 conferences*: 15th Annual Student Engagement Forum, Radford University; 85th Annual Meeting of the VA Academy of Science, James Madison University, Harrisonburg, VA.
- Lavery*, G, Francl, K., **Small, C.J.** 2007. Environmental Research at the Selu Conservancy. Clean Valley Council Earth Summit, Roanoke, VA.
- McIntyre*, E.M., **Small, C.J.**, Clement*, L.J. 2007. Influence of site conditions on the distribution of multiflora rose and Japanese honeysuckle in southwestern VA. *2 conferences*: 15th Annual Student Engagement Forum, Radford University; 9th Annual Mid-Atlantic Regional Conference of Undergraduate Scholarship, Sweet Briar College, Sweet Briar, VA.
- Small, C.J.** 2007. Influence of land use and disturbance history on long-term vegetation change in eastern forests. 85th Annual Meeting, VA Academy of Science, James Madison University, Harrisonburg.
- Small, C.J.**, Clement*, L.J., Hargbol*, B., McIntyre*, E., Conner*, R. 2007. Influence of site conditions on invasive plants in eastern forests. 15th Annual Student Engagement Forum, Radford University.

- Wojdak, J., Guinan, J., Wirgau, J., Kugler, J. **Small, C.**, Singer, F., Manyara, C., Hammond, G., Hagen, J., Bodo, B., Baldwin, A. 2007. A real environmental issue as the context for teaching college science. 92nd Annual Meeting of the Ecological Society of America, San Jose, California (poster).
- Wojdak, J., Guinan, J., Wirgau, J., Kugler, J. **Small, C.**, Singer, F., Manyara, C., Hammond, G., Hagen, J., Bodo, B., Baldwin, A. 2007. Using a real-world environmental issue as the context for teaching college science. Society of Wetland Scientists Annual Meeting, Sacramento, California.
- Small, C.J.** 2004. Fifty years of vegetation change in the CT College Arboretum. 89th Annual Meeting of the Ecological Society of America, Portland, Oregon.
- Small, C.J.** 2004. Using Geographic Information Systems (GIS) across the curriculum in the liberal arts. National Institute for Technology and Liberal Education Workshop, CT College.
- Small, C.J.** 2003. GIS analysis of invasive plant distributions in southern New England. Using GIS Across the Curriculum in the Liberal Arts, National Institute for Technology and Liberal Education (NITL) Conference, CT College (presenter / invited panelist).
- Small, C.J.**, McCarthy, B.C. 2002. The relationship of soil nitrogen to herb layer dynamics and diversity in an eastern oak forest, USA. 87th Annual Meeting of the Ecological Society of America, Tucson, AZ.
- Small, C.J.**, Lucas*, B., Lundgren*, M., Munger*, S., Small*, M., Weidner*, E. 2002. Vegetation dynamics in southeastern CT natural areas. CT College Student Research Symposium (poster).
- Small, C.J.**, McCarthy, B.C. 2001. Herb layer response to seasonal soil nitrogen dynamics in managed and mature oak forests, southeastern OH. 2 conferences: 110th Annual Meeting, OH Academy of Science, Alliance, OH; 86th Annual Meeting, Ecological Society of America, Madison, WI.
- Small, C.J.**, McCarthy, B.C. 2000. Influence of site quality and disturbance on central Appalachian deciduous forests. 85th Annual Meeting of the Ecological Society of America, Snowbird, Utah.
- Small, C.J.**, McCarthy, B.C. 2000. Soil seed bank and aboveground vegetation in clearcut and mature oak-hickory forests of southeastern OH. 2 conferences: 109th Annual Meeting of the OH Academy of Science, Ada, OH; Annual Meeting of the Midwest Ecology and Evolution Conference, Athens, OH.
- Small, C.J.**, McCarthy, B.C. 1999. Composition, structure, and diversity of woody vegetation, mature and reorganizing stands in southeastern OH. 108th Annual Meeting, OH Academy of Science, Cleveland.
- Small, C.J.**, McCarthy, B.C. 1999. Vegetation in managed and mature central Appalachian deciduous forests. XVI International Botanical Congress, St. Louis, MO (poster).
- Brown*, J., McCarthy, B.C., **Small, C.J.** 1999. Soil seed banks and aboveground vegetation of an old-growth mixed mesophytic forest, OH. 2 conferences: 108th Annual Meeting of the OH Academy of Science, Cleveland, OH; XVI International Botanical Congress, St. Louis, MO (poster).
- Small, C.J.**, McCarthy, B.C. 1998. Interpreting patterns of understory diversity in an old-growth forest: A test of the SHE analysis. 83rd Annual Meeting of the Ecological Society of America, Baltimore, MD.
- Small, C.J.**, McCarthy, B.C. 1998. Composition and diversity of forest herbs at Dysart Woods, an eastern mixed-mesophytic old-growth forest. 107th Annual Meeting, OH Academy of Science, Middletown.
- McCarthy, B., **Small, C.J.** 1998. Composition, structure, and health of Dysart Woods, an old-growth mixed mesophytic forest, southeastern OH. 107th Annual Meeting, OH Academy of Science, Middletown.
- Small, C.J.**, Wentworth, T.R. 1997. Characterization of Montane Cedar-Hardwood Woodlands in the southern Blue Ridge Province. Vegetation of the Southern Blue Ridge Province, Invited symposium. 58th Annual Meeting, Association of Southeastern Biologists, Greenville, SC.
- Small, C.J.**, Wentworth, T.R. 1996. Characterization of Montane Cedar-Hardwood Woodlands in the southern Blue Ridge Province. 57th Annual Meeting, Association of Southeastern Biologists, Statesboro, GA.

INVITED RESEARCH SEMINARS

2011. *Long-Term Dynamics & Disturbance Response in an Eastern Forest*. Invited Speaker, Department of Biology, Appalachian State University, Boone, NC.
2009. *Vegetation Dynamics and Disturbance History in Eastern Forests*. Invited Speaker, Harold Cones Seminar Series, Department of Biology, Chemistry, and Environmental Science, Christopher Newport University, Newport News, VA.
2006. *Pollination of Wildflowers in Southwestern Virginia*. Invited Speaker, New River Chapter, VA Native Plant Society.

2005. *Fifty Years of Vegetation Change in Southern New England*. Invited Speaker, Department of Biology, Radford University, VA.
2003. *Vegetation Dynamics and Disturbance Response in Eastern Deciduous Forests*. Invited Biology Seminar Speaker, Eastern CT State University.
2003. *Floral Attraction: Plants and their Pollinators*. Annual Meeting of the CT College Arboretum Members and Friends, CT College.
2002. *Long-Term Vegetation Studies in the Bolleswood Natural Area, CT College Arboretum*. Annual Meeting of the CT Forest and Park Association.
2001. *Herb Layer Dynamics and Disturbance Response in Central Appalachian Deciduous Forests*. Department of Botany, CT College.
1997. *Characterization of Montane Cedar Hardwood Woodlands of the Southern Blue Ridge Province*. Department of Environmental and Plant Biology, OH University.
1993. *An Ecological Approach to Sustainable Agriculture*. Department of Biology, Chemistry, and Environmental Science, Christopher Newport College, VA.
1992. *Biodiversity and Seed Dispersal in Three Neotropical Plant Communities*. Council for International Educational Exchange, Monteverde, Costa Rica.

DIRECTION OF STUDENT RESEARCH

Radford University

- Ness, G., Bower, J., Azzi, M., Rogers, W. 2011. Developing a predictive model for above-ground / below-ground biomass relationships in black cohosh, a southern Appalachian medicinal plant (co-mentor, J. Chamberlain, USDA Forest Service).
- Newtoff, K. 2010-2012. Online identification key to the wildflowers of Wildwood Park, Radford, VA (co-mentor, G. Cote). <http://www.radfordpl.org/wildwood/today/WildflowerKey/WldflrKyStp1.htm>
- Twenty (20) students. 2011. Sustainable harvest of black cohosh, a southern Appalachian medicinal plant, George-Washington National Forest (co-mentor, J. Chamberlain, USDA Forest Service).
- Newtoff, K., Rogers, W. 2011. Predicting the distribution of invasive plant species across the Selu Conservancy, Montgomery County, VA.
- Azzi, M., Langteau, J. 2011. Experimental assessment of a southern Appalachian medicinal herb: recovery potential of transplanted rhizomes.
- Eighteen (18) students. 2010. Sustainable harvesting of black cohosh, a southern Appalachian medicinal plant, George-Washington National Forest. (co-mentor, J. Chamberlain, USDA Forest Service).
- Faulkner, T., Jayne, M., Ness, G., 2010. Effect of trails on tropical dry forest structure on St. John, US Virgin Islands (co-mentor, J. Wojdak).
- Brennan, M. 2009-2010. Response of black cohosh (*Actaea racemosa*), a southern Appalachian medicinal plant, to five years of experimental harvesting (co-mentor, J. Chamberlain, USDA Forest Service).
- Matthews, D., Fulton, A., Freund, K. 2009-2010. Mapping tree diversity on the Radford University campus: construction of a campus walking tour (co-mentor D. White).
- Sixteen (16) students. 2009. Sustainable harvesting of black cohosh, a southern Appalachian medicinal plant, George-Washington National Forest (co-mentor, J. Chamberlain, USDA Forest Service).
- Four (4) students. 2009. Carbon storage in natural communities of Selu Conservancy / Influence of prescribed fire on small mammals at Caldwell Fields (co-mentor K. Francl).
- Mathews, D. 2007-2009. Sustainable harvesting of black cohosh, a southern Appalachian medicinal plant (co-mentor, J. Chamberlain, USDA Forest Service).
- Meyer, B. 2007-2009. Biotic diversity of karst sinkholes of southwestern VA (co-mentor K. Francl).
- Eight (8) students. 2008. Classification of ecological communities of Selu Conservancy; Sustainable harvesting of black cohosh, a southern Appalachian medicinal herb; Salamander use of karst resources at the Selu Conservancy (co-mentor K. Francl).
- Baisey, M. 2007-2008. Classification of ecological communities of Selu Conservancy in southwestern VA.
- Hargbol, B. 2006-2008. Effects of *Ailanthus altissima* allelopathy on native plants of southwestern VA.
- Fourteen (14) students. 2007. Vegetation and small mammal communities of Selu Conservancy, Montgomery County, VA (co-mentor K. Francl); Sustainable harvesting of black cohosh, George-Washington National Forest (co-mentor, J. Chamberlain, USDA Forest Service).

- Clement, L. 2006-2007. Geographic Information Systems (GIS) mapping of invasive plant species at the Selu Conservancy in southwestern VA.
- Hargbol, B., Conner, R. 2006-2007. Distribution and dendrochronology of the invasive *Rosa multiflora* in natural areas of Selu Conservancy.
- McIntyre, E., Clement, L. 2006-2007. Distribution of native and invasive plant species at the Selu Conservancy, Montgomery County, VA.
- Howard, B. 2006. Relationship of natural vegetation, site conditions, and land use history to invasive plant distribution in southwestern VA.

Connecticut College

- Phelan, A. 2004-2005. Use of prescribed burning in restoration and maintenance of regionally rare pitch pine sand plain communities in southern New England (co-mentor G. Dreyer).
- Munger, S., Mohammed, A. 2004-2005. Vascular flora of West Farms Land Trust, Waterford, CT.
- Munger, S., Mohammed, A., Phelan, A. 2004. Use of prescribed burning in restoration and maintenance of a regionally rare pitch pine sand plain, Hopeville Pond Natural Area Preserve, Griswold, CT.
- Kelly, A.B. 2003-2004. Vegetation classification and environmental correlation of invasive non-native plant species in the Pawcatuck Borderlands of CT and RI (co-mentor G. Dreyer).
- Kelly, A., Mygatt, E. 2003. Impacts of invasive plants in the Pawcatuck Borderlands; Use of prescribed burning in the restoration of a regionally rare pitch pine sand plain; Impacts of white-tailed deer herbivory in the Burnham Brook Preserve.
- Weidner, E.F. 2003. Plant community dynamics in response to disturbance and environmental change.
- Small, M.J. 2002-2003. Effects of the hemlock woolly adelgid on the vegetation of the Bolleswood Natural Area (co-mentor G. Dreyer).
- Five (5) students. 2002. Long-term vegetation dynamics in the Bolleswood Natural Area; Use of prescribed burning in the restoration of a regionally rare pitch pine-sand plain; Impacts of white-tailed deer herbivory (co-mentor G. Dreyer)
- Glaza, T. 2001-2003. Master's Thesis. Ethnobotany of Pequot Indian gardens in southeastern CT (co-mentors M. Lizarralde, PI; R. Warren; C. Benoit).
- Lundgren, M. 2001-2002. Historical and environmental influences on exotic plant invasion in southern New England (co-mentor G. Dreyer).
- Schwartz, J. 2001-2002. Fifty years of vegetation change in the Bolleswood Natural Area (co-mentor R.S. Warren).

Ohio University

- Brown, J. 1998-2000. Soil seedbank dynamics in an old-growth mixed-mesophytic forest of unglaciated OH (co-mentor B. McCarthy).
- Wendelburger, K. 1998-1999. Flora of Waterloo Wildlife Experimental Station, Athens County, OH.

ACADEMIC AND PROFESSIONAL SERVICE

External Service

- 2010-2012. At-Large Council Member: Southern Appalachian Botanical Society
2011. Ad-Hoc Committee for digital publication of *Castanea* (Journal of the Southern Appalachian Botanical Society)
- 2006-present. Editorial Board Member / Guest Editor: *Southeastern Naturalist*
- 2001-present. Manuscript Reviewer: *BioScience*, *Journal of Ecology*, *Forest Ecology & Management*, *International Journal of Forestry Research*, *Torrey Botanical Society*, *Castanea*, *Northeastern Naturalist*, *Southeastern Naturalist*
- 2002-2006. Board of Trustees: *National Conservation and Research Foundation*
- 2001-2005. Editorial Board Member and Guest Editor: *Northeastern Naturalist*
- 2001-2005. Newsletter Editor and Production Manager: *Newsletter of the CT Botanical Society*
- 2001-2005. Burnham Brook Preserve Stewardship Committee: CT Chapter, The Nature Conservancy

University Service

- 2011-2012. RU Faculty Awards Committee.
2011-2012. RU Environmental Center Advisory Committee.
2010-2012. RU Biology Scholarship Committee
2008-2012. RU Library Committee, College of Science and Technology representative
2011. RU Quality Enhancement Plan (QEP) Writing Team, College of Science and Technology representative
2011. RU Winesett Student Library Research Award, Judge
2007-2011. RU Biology Curriculum Committee
2010-2012. Assisted in preparation and post-award activities for the Biology/Math NSF grant, "SUMS4BIO: Strengthening Undergraduate Mathematics and Statistics Education for Biologists," (PIs: Hagen, Singer, Wojdak, Stewart)
2008-2009. RU Campus Sustainability Committee / Grounds and Habitat Sustainability Subcommittee
2007-2008. RU Core Curriculum Committee (General Education program revision)
2006-2007. Animal Physiologist Faculty Search Committee, Chair, RU Biology Department
2006. Commission for the Future of Radford University / Academic Centers of Distinctiveness
2005-2006. Vertebrate Field Biologist Faculty Search Committee, RU Biology Department
2001-2005. Curator: Charles B. Graves Herbarium, CT College
2001-2005. Steering Committee: Goodwin-Niering Center for Conservation Biology and Environmental Studies, CT College
2002-2004. C.F. Johnson Teaching Seminar: Organizing Committee, CT College
2002-2003. Watson Fellowship Committee: CT College
1999-2001. Assistant Webmaster: Department of Plant Biology, OH University

PROFESSIONAL AFFILIATIONS

Ecological Society of America, Southern Appalachian Botanical Society, Torrey Botanical Society, *Phi Kappa Phi* National Honor Society, *Sigma Xi* Scientific Research Society