Two-page CV for

Christel C. Kern

Research Forester
USDA Forest Service, Northern Research Station
5985 Highway K, Rhinelander, WI 54501 USA

Office (715) 362-1123; Fax (715) 362-1166; Email: cckern@fs.fed.us

Education and Training

University of Wisconsin-Stevens Point	Stevens Point, WI	Biology	B.S. 1997
University of Wisconsin-Stevens Point	Stevens Point, WI	Natural Resources	M.S. 2000
University of Minnesota-Twin Cities	Saint Paul, MN	Natural Resources	Ph.D. 2011
Program of Advanced Silviculture Study	USDA Forest Service Region 9		Certified 2006

Professional and Research Experience

2013 to pres.	GS-12 Research Forester, USDA Forest Service, Northern Research Station
2011 to 2013	GS-11 Research Forester, USDA Forest Service, Northern Research Station
2006 to 2011	GS-09 Scientist-in-Training, USDA Forest Service, Northern Research Station

Professional Activities

2015 to present	Blog Editor, Early Career Ecologist section of the Ecological Society of America; http://esa.org/earlycareer/news/
2013	Principal Organizer, Organized Oral Session "Sustaining forest goods and services in a time of change: the role of harvest gaps in northern temperate forest regeneration and diversity" at the Ecological Society of America annual meeting, Minneapolis, MN.
Memberships	Ecological Society of America; Society of American Foresters; Natural Areas Association; Forest Guild; Arbeitsgemeinschaft Naturgemäße Waldwirtschaft
Adjunct Faculty	University of Minnesota
Graduate Students	Margaret Roberts, M.S. 2015, University of Minnesota Sawyer Scherer, M.S. 2016, University of Minnesota Joshua James, M.S. in progress, Michigan State University

Publications

Kern, C.C., J.I. Burton, P. Raymond, A.W. D'Amato, W.S. Keeton, A. Royo, M.B. Walters, C. Webster, and J.L. Willis. In press. Challenges facing gap-based silviculture and possible solutions. Forestry.

Scherer, S, A. D'Amato, **C. Kern**, B. Palik, and M. Russell. 2016. Long-term impacts of prescribed fire on stand structure, growth, mortality, and individual tree vigor in *Pinus resinosa* forests. Forest Ecology and Management 368:7-16.

Roberts, M., A. D'Amato, **C. Kern**, and B. Palik. 2016. Long-term impacts of variable retention harvesting on ground-layer plant communities in *Pinus resinosa* forests. Journal of Applied Ecology 53:1106-1116.

Kenefic, L., and **C.C. Kern**. 2015. Early northern hardwood silvicultural research at the Dukes Experimental Forest, Michigan. Journal of Forestry 113:258-261.

Kern, C.C., L.S. Kenefic, and S.L. Stout. 2015. Bridging the gender gap: demographics of scientists in the USDA Forest Service and academia. Bioscience 65:1165-1172

Kern, C.C., Montgomery, R.A., Reich, P.B., Strong, T.F., 2014. Harvest-created canopy gaps increase species and functional trait diversity of the forest ground-layer plant community. Forest Science 60: 335-344.

Kern, C.C., Montgomery, R.A., Reich, P.B., Strong, 2013. Canopy gap size influences niche partitioning of the ground-layer plant community in a northern temperate forest. Journal of Plant Ecology 6: 101-112.

Kern, C.C., D'Amato, A.W., Strong, T.F. 2013. Diversifying the composition and structure of managed, late-successional forests with harvest gaps: what is the optimal gap size? Forest Ecology Management 304:110-120.

Ostry M.E., M.J. Moore, **C.C. Kern**, R.C. Venette, and B.J. Palik. 2012. Multiple diseases impact survival of planted red, jack, and white pine seedlings in red pine stands harvested in spatially variable retention patterns. Forest Ecology and Management 286: 66-72.

Kern, C.C., P.B. Reich, R.A. Montgomery, and T.F. Strong. 2012. Do deer and shrubs override canopy gap size effects on growth and survival of yellow birch, northern red oak, eastern white pine, and eastern hemlock seedlings? Forest Ecology and Management 267:134-143.

Synergistic Activities

1. I demonstrated *originality* by examining silvicultural research questions within the context of seminal theory. For example, the focus of a recent study was to answer questions about the management and regeneration of mid-tolerant (to shade) tree species. I used the Gap Partitioning Hypothesis as a framework to understand plant community response to harvest gap size in northern hardwood forests. Using theory in an applied study enabled me to bring a deeper understanding of the results important to science and practice. This approach has led to my dissertation, two refereed publications, and ten invited talks.

2. I have demonstrated *leadership* in integration of science with application as the co-coordinator of the research natural areas program and lead scientist of five experimental forests for the USDA Forest Service Northern Research Station. These activities include professional tours and trainings in ecology and management, collaborations with universities and other agencies, and three manuscripts (in review) summarizing multi-site research across large spatial scales.

3. I have exhibited *commitment* to and leadership on diversity and inclusion issues; my work on these topics includes a recent journal paper (Kern et al. 2015 BioScience) about gender diversity in FS R&D and academia and presentations to Forest Service Leadership and Executive Teams.

4. I have demonstrated *service* by providing multiple consultations to the Chippewa National Forest, Minnesota, USA. The Forest sought me for available science results on natural tree regeneration and plant diversity response to harvest opening size. Consultations included a literature review, a seminar, and site visits. Thus far, my input significantly influenced silvicultural prescriptions for 70 stands or >600 hectares of northern hardwood forest management.