
Curriculum Vitae

EDUCATION:

PhD, Ecology, Utah State University (2007)

Specialties: aspen and community ecology, lichen taxonomy, biogeography, disturbance ecology, and large-scale forest monitoring.

Dissertation: *Factors influencing epiphytic lichen communities in aspen-associated forests of the Bear River Range, Idaho and Utah* (five publications).

MS, Geography, minor in Cartography, University of Wisconsin – Madison (1986)

Specialties: physical geography, dendrology, alpine environments, wildland management, and cartography/remote sensing.

Thesis: *Campsite impacts in the High Uintas Wilderness Area: a study of two altitudinal zones* (one report published).

BS, Geography, minor in History, Utah State University (1983)

Specialties: physical geography, geomorphology, meteorology, western U.S., and cartography.

PUBLICATIONS:

JOURNAL ARTICLES

34. **Rogers, P.C.**; McAvoy, D.J. 2018. Mule deer impede Pando's recovery: implications for aspen resilience from a single-genotype forest. *PLoS ONE* 13(10): e0203619. <https://doi.org/10.1371/journal.pone.0203619>
33. Heroy, K.Y.; St. Clair, S.B.; **Rogers, P.C.**; Villalba, J.J. 2018. The influence of the foodscape on quaking aspen stand condition and use by ungulates. *Int'l. J. Forest, Animal and Fisheries Res.* 2(2):50-63. DOI: [10.22161/ijfaf.2.2.2](https://doi.org/10.22161/ijfaf.2.2.2)
32. **Rogers, P.C.**; Gale, J.A. 2017. Restoration of the iconic Pando aspen clone: emerging evidence of recovery. *Ecosphere* 8(1): e01661. <http://onlinelibrary.wiley.com/doi/10.1002/ecs2.1661/full>
31. **Rogers, P.C.**; St. Clair, S.B. 2016. [Invited paper] Quaking aspen in Utah: integrating recent science with management practice. *Rangelands* 38(5):266-272. DOI: 10.1016/j.rala.2016.08.009
30. **Rogers, P.C.**; Catlin, J.; Jones, A.; Shuler, J.; Morris, A.; Kuhns, M. 2015. Quaking Aspen at the Residential-Wildland Interface: Elk Herbivory Hinders Forest Conservation. *Natural Areas Journal* 35(3): 416-427. DOI: <http://dx.doi.org/10.3375/043.035.0305>
29. **Rogers, P.C.**; Rogers, R.W.; Hedrich, A.E.; Moss, P.T. 2015. Lichen monitoring delineates biodiversity on a Great Barrier Reef coral cay. *Forests* 6: 1557-1575 doi:10.3390/f6051557.
28. Mittanck, C.M.; **Rogers, P.C.**; Ramsey, R.D.; Bartos, D.L.; Ryel, R.J. 2014. Exploring succession within aspen communities using a habitat-based modeling approach. *Ecological Modeling* 288:203-212. DOI: 10.1016/j.ecolmodel.2014.06.010
27. **Rogers, P.C.**; Landhäuser, S.M; Pino, B.; Ryel, R.J. 2014. Functional framework for improved management of western North American aspen (*Populus tremuloides* Michx.). *Forest Science* 60(2): 345-359. DOI: org/10.5849/forsci.12-156.
26. **Rogers, P.C.**; Mittanck, C.M. 2014. Herbivory strains resilience in drought-prone aspen landscapes of the western United States. *Journal of Vegetation Science* 25:457-469. DOI: 10.1111/jvs.12099.

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25. **Rogers, P.C.**; Eisenberg, C.; St. Clair, S. 2013. Resilience in quaking aspen: recent advances and future needs. *Forest Ecology and Management* 299:1-5. DOI: 10.1016/j.foreco.2012.11.008.
 24. Shinneman, D.J.; Baker, W.L.; **Rogers, P.C.**; Kulakowski, D. 2013. Fire regimes of quaking aspen in the Mountain West. *Forest Ecology and Management* 299: 22-34. DOI: org/10.1016/j.foreco.2012.11.032.
 23. Omoro, L.M.A., Pellikka, P., **Rogers, P.C.** 2010. Tree species diversity, richness, and similarity between exotic and indigenous forests in the cloud forests of Eastern Arc Mountains, Taita Hills, Kenya. *J. of Forestry Research*, 21(2): 255-264.
 22. Sharik, T.L.; Adair, W.; Battaglia, M.; Baker, F.A.; Comfort, E.J.; D'Amato, A.; DeLong, C.; DeRose, J.; Ducey, M.; Harmon, M.; Levy, L.; Logan, J.; O'Brien, J.J.; Palik, B.; Roberts, S.C.; **Rogers, P.C.**; Shinneman, D.J.; Spies, T.; Taylor, S.L.; Woodall, C.; Youngblood, A. 2010. Emerging themes in the ecology and management of North American forests. *International J. of Forestry Research*; Vol. 2010, ID 964260, 11 pages (DOI:10.1155/2010/964260).
 21. **Rogers, P.C.**; Leffler, A.J.; Ryel, R.J. 2010. Landscape assessment of a stable aspen community in southern Utah, USA. *Forest Ecology and Management*, 259(3): 487-495.
 20. **Rogers, P.C.**; Moore, K.; Ryel, R. J. 2009. Aspen succession and nitrogen loading: a case for epiphytic lichens as bioindicators in the Rocky Mountains, USA. *J. Vegetation Science*, 20: 498-510.
 19. **Rogers, P.C.** 2009. Reply to Spanhove & Lehouck "Don't miss the invasions! A note on Forest Health Monitoring in the Taita Hills, Kenya". *J. East African Nat. Hist.*, 97(2):257-258.
 18. **Rogers, P.C.**; O'Connell, B.; Mwang'ombe, J.; Madoffe, S.; Hertel, G. 2008. Forest Health Monitoring in the Ngangao forest, Taita Hills, Kenya: a five year assessment of change. *J. East African Nat. Hist.*, 97(1):3-17.
 17. **Rogers, P.C.**; Ryel, R. J. 2008. Lichen community change in response to succession in aspen forests of the southern Rocky Mountains. *Forest Ecology and Management*, 256: 1760-1770.
 16. **Rogers, P.C.**; Rosentreter, R.; Ryel, R.J. 2007. Aspen indicator species in lichen communities in the Bear River Range of Idaho and Utah. *Evansia*, 24(2): 34-41.
 15. **Rogers, P.C.**; Shepperd, W.D.; Bartos, D. 2007. Aspen in the Sierra Nevada: regional conservation of a continental species. *Natural Areas Journal*, 27(2): 183-193.
 14. Madoffe, S.; Hertel, G.D.; **Rogers, P.**; O'Connell, B., and Killenga, R. 2006. Monitoring the health of selected eastern arc forests in Tanzania. *African Journal of Ecology*. 44:171-177.
 13. **Rogers, P.** 2002. Using Forest Health Monitoring to assess aspen forest cover change in the southern Rockies ecoregion. *Forest Ecology and Management*, 155(1-3):223-236.
 12. Chojnacky, D.; **Rogers, P.** 1999. Converting tree diameter at root collar (drc) to diameter at breast height (dbh). *Western Journal of Applied Forestry*, 14(1):14-16.

BOOKS, CHAPTERS, MONOGRAPHS

11. **Rogers, P.C.** 2017. Guide to Quaking Aspen Ecology and Management. USDI, Bureau of Land Management, Salt Lake City, Utah. BLM-UT-G1017-001-8000. 98 p. http://western-aspen-alliance.org/files/AspenFieldGuide_050817_final4.pdf
10. **Rogers, P.C.**, Bartos, Dale L., Ryel, Ronald J. 2011. Historical patterns in lichen communities of montane quaking aspen forests. In: Justin A. Daniels (ed.), *Advances in Environmental Research, Vol. 15*. Nova Science

Publishers, Hauppauge, NY: pp. 33-64.

www.novapublishers.com/catalog/product_info.php?products_id=30532

9. **Rogers, P.C.** 2007. Factors influencing epiphytic lichen communities in aspen-associated forests of the Bear River Range, Idaho and Utah. [Ph.D. Dissertation], Utah State University, Dept. of Wildland Resources. 166 p.
8. Shepperd, W.; **Rogers, P.**; Burton, D.; Bartos, D. 2006. Ecology, biodiversity, management, and restoration of Aspen in the Sierra Nevada. RMRS-GTR-178; Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 122 p. www.fs.fed.us/rm/pubs/rmrs_gtr178.html. (Also published as an internal U.S. Forest Service Contract report under the title, "Ecology, management, and restoration of Aspen in the Sierra Nevada.").
7. Rogers, P. 1987. Campsite impacts in the High Uintas Wilderness Area: a study of two altitudinal zones. [M.S.Thesis], University of Wisconsin-Madison. (Also published as a USDA Forest Service, Intermountain Region, Ogden, Utah, circular report).

PEER-REVIEWED TECHNICAL REPORTS

6. Neitlich, P.; **Rogers, P.**; Rosentreter, R. 2003. Lichen communities indicator results from Idaho: baseline sampling. Gen. Tech. Report RMRS-GTR-103. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 14 p.
5. Keyes, C.; **Rogers, P.**; LaMadeleine, L.; Applegate, V.; Atkins, D. 2003. Utah Forest Health Report: A baseline assessment, 1999-2001. Utah Dept. of Natural Resources, Div. of Forestry, Fire and State Lands, Salt Lake City, Utah. 47 p.
4. Koch, L.; **Rogers, P.**; Frank, M.; Spiegel, L.; Atkins, D. 2001. Wyoming forest health report: a baseline assessment, 1995-1998. Wyoming State Forestry Division (Cheyenne, WY) and USDA Forest Service, Rocky Mountain Research Station (Ogden, UT). 52 p.
3. **Rogers, P.**; Atkins, D.; Frank, M.; Parker, D. 2001. Forest Health Monitoring in the Interior West: a baseline summary of forest issues, 1996-1999. Gen. Tech. Rep. RMRS-GTR-75. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 40 p.
2. **Rogers, P.**; Schomaker, M.; McLain, W.; Johnson, S. 1998. Colorado forest health report 1992-95: a baseline assessment. Colorado State Forest Service and USDA, Forest Service, Rocky Mountain Research Station. 44 p.
1. **Rogers, P.** 1996. Disturbance ecology and forest management: a review of the literature. USDA, Forest Service, Intermountain Research Station, Ogden, Utah. Gen. Tech. Report INT-336. 16 p.

REPORTS & FIELD GUIDES

Rogers, P.C.; Mittanck, C.M; Ryel, R.J. 2013. Aspen Status Report and Recommendations for the Book Cliffs. Prepared for Vernal Field Office, USDI, Bureau of Land Management, Utah. Western Aspen Alliance, Dept. of Wildland Resources, Utah State University, Logan, Utah. 23 p.

Rogers, P.C.; Jones, A.; Catlin, J.; Shuler, J.; Morris, A.; Kuhns, M. 2013. Wolf Creek Ranch aspen monitoring report. Western Aspen Alliance, Utah State University, Logan, Utah. 21 p.

Utah Forest Restoration Working Group - Ecology Committee [Mary O'Brien, **Paul C. Rogers**, Kevin Mueller, Rob MacWhorter, Allen Rowley, Bill Hopkin, Bill Christensen, Paul Dremann]. 2010. *Guidelines for Aspen Restoration on the National Forests in Utah*, Western Aspen Alliance, Utah State University, Logan, UT. 48 p. <http://www.western-aspen-alliance.org/>

Transtrum, D.; Nelson, G.; McArthur, S.; Trautwein, D.; Andrus, E.; Chadwick, A.; Frazier, D.; Hunt, S.; Mitchell, K.; Wirick, C.; Allen, J.; Jensen, J.; Smith, J.; Purser-Thompson, K.; Walker Workman, A.; Giles, P.;

- Loertscher, A.; Nez, J.; Oldham, N.; **Rogers, P.C.** 2009. *Forestry Camp at the Crossroads: Future scenarios for environmental learning at an historic university site*. **P.C. Rogers (ed.)**. Report for the Department of Environment and Society, Utah State University. 74 p.
- Rogers, P.C.** (ed.). 2008. *Summary and abstracts from sudden aspen decline (SAD) meeting*, Fort Collins, Colorado. February 12-13, 2008. USDA Forest Service, Rocky Mountain Research Station, “white paper” on file at RMRS, Fort Collins, CO and Western Aspen Alliance, Department of Wildland Resources, Utah State University, Logan, Utah. http://www.western-aspen-alliance.org/pdf/FtCollins_SAD_summary.pdf.
- Madoffe, S.; Mwang’ombe, J.; O’Connell, B.; **Rogers, P.**; Hertel, G.; Mwangi, J. 2005. *Forest Health Monitoring in the Eastern Arc Mountains of Kenya and Tanzania: a baseline report from select forest reserves*. U.S. Department of Agriculture, Forest Service, Northeast Area. 52 p. Published on-line: <http://www.easternarc.or.tz/dl.htm#Eastern%20Arc> or http://fhm.fs.fed.us/pubs/baseline/eam_01_02.pdf.
- Steinman, J.; Bridgewater, D.; Burns, B.; Cummings-Carlson, J.; Conkling, B.; McWilliams, W.; Ripley, K.; **Rogers, P.**; Schomaker, M.; Trickel, R.; Vissage, J.; Yockey, E. 2004. *Reporting Plan for the Forest Health Monitoring Program of the USDA Forest Service: guidelines for state, multi-state and national reports*. USDA, Forest Service, Washington Office, National Forest Health Monitoring Program. 11 p.
- Rogers, P.** 2003. *Forest Resources of the Prescott National Forest*. Brochure. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 13 p.
- Rogers, P.** 2003. *Forest Resources of the Apache-Sitgreaves National Forest*. Brochure. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 13 p.
- Rogers, P.** 2003. *Forest Resources of the Cibola National Forest*. Brochure. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 13 p.
- Neitlich, P.; Hasselback, L.; Szewczak, S.; **Rogers, P.** 1999. *FHM lichen community results from Wyoming, 1997: a preliminary summary*. A report to the USDA Forest Service, Rocky Mountain Research Station, Forest Health Monitoring Program. White Mountain Research Station, Bishop, CA. 27 p.
- Atkins, D.; Byler, J.; Livingston, L.; **Rogers, P.**; Bennett, B. 1999. *Health of Idaho’s forests: a summary of conditions, issues and implications*. USDA Forest Service, Northern Region, Forest Health Protection, Report No. 99-4. 33 p.
- Rogers, P.**; Stolte, K.; Burkman, B.; Cummings-Carlson, J.; Busing, R.; Schomaker, M. 1998. *Technical reporting plan: guidelines for annual regional reports*. USDA, Forest Service, Southern Research Station, National Forest Health Monitoring Program, Research Triangle Park, N.C. 16 p.
- McCune, B.; **Rogers, P.**; Ruchty, A.; Ryun, B. 1998. *Lichen communities for Forest Health Monitoring in Colorado, USA*. A Report to the USDA, Forest Service, National Forest Health Monitoring Program, Research Triangle Park, N.C. 29 p.
- Bechtold, W.; Rogers, P.; LaBau, V.; McLain, W. 1994. Forest Mensuration. In: Tallent-Halsell, N.G. (ed.). *Forest Health Monitoring 1994 Field Methods Guide*. PA/R-94/027. U.S. Environmental Protection Agency, Washington, D.C. pp.1.1-1.109
- MISCELLANEOUS PUBLISHED WORKS
- Rogers, P.C.** 2018. “Massive Organism Is Crashing on Our Watch” online forum (blog), Pando Populus, <http://www.pandopopulus.com/blog/>, Oct. 17, 2018. 2 p.

Rogers, Paul C. 2018. Living With A Giant. *TOPOS*, Vol. 103:50-57. (Two versions: short for print copy; long 4-part serial for online - <https://www.toposmagazine.com/trees-pando/>).

Rogers, Paul C. 2018. And what of the trees? *Counterpunch*, March 14, 2018.
<https://www.counterpunch.org/2018/03/14/and-what-of-the-trees/>

Obrecht, J. and **Rogers, P.** 2017. An Aspen Education. *Wyoming Wildlife*, Vol. 81(10):46-47.

Rogers, P.C. 2017. Pando's Lessons: restoration of a giant aspen clone. Western Aspen Alliance, Utah State University Extension, Logan, UT. *WAA Briefs* #4, 2 p. http://western-aspen-alliance.org/files/briefs/WAA%20Brief4_Pando_final.pdf

Rogers, P.C. 2017. "Practicalities of Pando's Preservation" online forum (blog), Pando Populus, <http://www.pandopopulus.com/blog/>, April 5, 2017. 2 p.

Rogers, P.C. 2016. "Pando in the News (a lot)" online forum (blog), Pando Populus, <http://www.pandopopulus.com/blog/>, Feb. 28, 2016. 2 p.

Rogers, P.C. 2016. "Saving Pando: Humans are taking measured steps to rejuvenate an ailing giant". *Natural History*, 124(2): 32-37.

Rogers, P.C. 2015. "Aspen Controversy", eXtension website, Controversy on the Range series: <http://www.extension.org/pages/72913/aspen-controversy#.VaAdtpXbLIX>

Rogers, P.C. 2015. "How do you define 'Wild' in the West?" *High Country News*, Writers on the Range (syndicated in over 70 U.S. newspapers), April 29, 2015. <http://www.hcn.org/articles/how-do-you-define-wild-in-the-west>.

St. Clair, S.B.; **Rogers, P.C.**; Kuhns, M.R. 2015. Managing ungulate browsing for sustainable aspen. Western Aspen Alliance, Utah State University Extension, Logan, UT. *WAA Briefs* #2, 2 p. http://western-aspen-alliance.org/files/briefs/waabrief002_stclair.pdf

Rogers, P.C. 2014. Designers and Forests collaborator Paul Rogers. *Explore Reflect Respond: Designing for Small Communities*. <http://issuu.com/designersandforests/docs/explorereflectrespond/1> [Interview], p.15.

Rogers, P.C. 2014. Building resilience into quaking aspen management. Western Aspen Alliance, Utah State University Extension, Logan, UT. *WAA Briefs* #1, 2 p. http://western-aspen-alliance.org/files/briefs/waabrief001_resiliencemgt.pdf

St. Clair, S.B.; **Rogers, P.C.** (Eds.) 2013. [Special Issue] Resilience in Quaking Aspen: restoring ecosystem processes through applied science *Forest Ecology and Management*. Vol. 299.

Rogers, P.C. 2011. Western Aspen Alliance: A Network for Sharing Science. *Utah Forest News*, 15(3): 4-5.

Rogers, P.C. 2010-present (author/editor). *Tremblings*. (Quarterly newsletter of the Western Aspen Alliance). <http://www.western-aspen-alliance.org/>

GRANTS & FELLOWSHIPS:

Fulbright Specialist Grant, Travel, per diem, honorarium to support five week scholarly exchange to Mendel University, Brno, Czech Republic (awarded 2017: est. value \$15,000). P. Rogers presented numerous lectures and initiated a global aspen science organization called the Aspen Conservation

Consortium. Additionally, he participated in field visits around Czechia to discuss forest ecology, management treatments, recent disturbances, and European aspen conditions.

USDI, Bureau of Land Management, Grant to support Western Aspen Alliance (awarded 2016; \$150,000 for 5 years – supplemental funds up to \$300,000 total). P. Rogers principal investigator. Funds are to enhance the overall WAA program, as well as increase cooperative projects between WAA and BLM, such as training professional staff in aspen functional types, address water and climate issues related to aspen forest health, investigating wildlife habitat in aspen, participating in regional ecosystem assessments, and administering the WAA's diverse education and technology transfer programs.

Utah State University Extension, Annual grant to conduct monitoring, research, and outreach related to the giant aspen Pando Clone near Fish Lake, Utah (awarded 2016; \$10,000) with Jody Gale, USU Extension, Richfield, Utah. The goal of this grant is to monitor/assess conditions at Pando, make restoration recommendations to the U.S. Forest Service, and communicate results to the public through written and oral products.

Pando Fund (Awarded 2016, \$6,000). P.C. Rogers, Principle Investigator. This fund includes various small donors, and is expected to grow over time, who are specifically interested in monitoring, research, and outreach associated with preserving a sustainable Pando Clone in central Utah – known as the 'world's largest organism'; it is currently in need of science and management assistance to reverse its declining course.

National Park Service, Fossil Butte National Monument, Cooperative Ecosystem Studies Unit (CESU), Task Agreement (Awarded 2015, \$10,000) with Dr. Kari Veblen. "Elk Use and Habitat Monitoring at Fossil Butte National Monument, Wyoming" pilot study.

University of Queensland (Australia), School of Geography, Planning, and Environmental Management, Visiting Fellowship (Awarded 2014, \$10,000). The Visiting Fellow lectured in Biogeography and Geomorphology (GEOS2103) and Plants, People, and environment (GEOS3107), as well as two GPEM School seminars, participated in class field trips, and developed research with GPEM faculty.

USDA Forest Service, State & Private Forestry, FY 2012 Western Competitive Resource Allocation (Awarded 2012-2015, \$300,000), P.J. Abraham (Utah Forestry, Fire, State Lands) with multiple state, NGO, and private landowner partners to facilitate aspen restoration at Wolf Creek Ranch, Utah. \$10,000 to Western Aspen Alliance for monitoring design, training, data analysis.

Eccles Foundation/Grand Canyon Trust (Awarded 2011; \$5,000) with Dr. Ronald Ryel to support Rogers' time in participating in Utah Forest Restoration Working Group implementation projects.

USDA, Forest Service, Regions 1-4, Participating Agreements (Signed 2010; total to date \$58,100)

- **Region 4, Intermountain Region, Supplemental Project Agreement** (Awarded 2010-13; \$48,100) with Drs. Ronald Ryel and Michael Kuhns to work with the Utah Forest Restoration Working Group to improve aspen sustainability on National Forest Lands throughout Utah and support general Western Aspen Alliance administration.
- **Region 3, Southwest Region, Supplemental Project Agreement** (Awarded 2011-12; \$10,000 annually) with Dr. Ronald Ryel to consult on monitoring plans for aspen restoration after large wildfires and to support general Western Aspen Alliance administration.

National Institute of Food and Agriculture (NIFA), National Needs Graduate Fellowship (NNF) program (awarded 2011; \$236,000 for 4 years) with Drs. Karen Mock, Barbara Bentz, Ronald Ryel, James Long, Michael Kuhns, Paul Rogers, and Zhou Ma. Funding is explicitly for (2) doctoral and (2) masters students to address “**Managing for Resilience in Forested Ecosystems of the Intermountain West**”.

USDI, Bureau of Land Management, Grant to support Western Aspen Alliance (awarded 2010; \$225,000 for 5 years) with Dr. Ronald Ryel. Funds are to enhance the overall WAA program, as well as increase cooperative projects between WAA and BLM, such as delineating aspen functional types, preparing management and methods guidelines, and participating in regional ecosystem assessments as aspen experts.

- **USDI, Utah BLM, Vernal District** (Awarded 2011, \$20,000; 2012, \$10,000) with Dr. Ronald Ryel to support 2012 a monitoring program and development a management plan for aspen sustainability in the Book Cliffs area of eastern Utah.

USDA, Forest Service, Grant to participate in Utah Forest Restoration Working Group (awarded August 2010; \$4,000 for 1 year) with Dr. Ronald Ryel. The working group enacts a collaborative process between multiple interest groups (agency, industry, NGO, stakeholders, etc.) to find consensus on a range of forest-related issues. The inaugural issue for this group has been to develop a set of aspen restoration principles for all National Forest lands in the state of Utah. Dr. Paul Rogers was requested to act as a neutral party expert consultant for UFRWG.

Quinney Foundation, Grant to Support Western Aspen Alliance (awarded 2008; \$112,200 for 4 years) with Dr. Ronald Ryel. Funds are to provide “seed money” to establish this regional research and management working group tasked with collaborating and facilitating ecological aspen research to improve management.

Cedar Mountain Initiative, Utah State University Extension, (awarded 2008; \$150,000 for 3 years) with Dr. Karen Mock. Monies will support research on Cedar Mountain, southern Utah that will evaluate conditions across a large landscape of pure aspen stands and assess genetic expression in stand structure, browsing intensity, and incidence of stem disease.

EXPERIENCE:

Fulbright Specialist Scholar, Mendel University, Faculty of Forestry and Wood Technology, Brno, Czech Republic (2017 Nov.-Dec.)

- * Teaching in forest ecology, aspen ecosystems, fire sciences, lichenology, biogeography; field monitoring techniques for graduates and undergraduates.
- * Research Projects: initiating an international, circumboreal union of aspen conservation scientists; collaborating on forest ecology research with cooperator (Dr. Antonin Kusbach) on Mongolian forest data analysis.
- * Seminars: one Faculty of Forestry and Wood Technology; one university-level seminar

Visiting Fellowship, University of Queensland, Geography Planning and Environmental Management (GPEM), Brisbane, Australia (2014 - Aug.-Nov.)

- * Teaching in Biogeography and Plants, People, and Environment.
- * Research Projects: Heron Island forest lichen monitoring and Main Rain Critical Zone Observatory monitoring
- * Seminars: GPEM School lecture; Landscape Ecology and Conservation seminar

Director, Western Aspen Alliance, Adjunct Associate Professor, Ecology Center Associate Dept. of Wildland Resources, Utah State University (2008 – present)

- * Communication: conduct and organize field workshops, conferences, and meetings related to promoting a western U.S. regional aspen research and management coalition.
- * Coordination: consult and direct expertise among regional land management agencies and university researchers in the field of aspen ecology.
- * Fund raising: apply for grants from various sources, including large foundations, to support research and management efforts directed towards aspen ecology. Presentations to funders made in written and oral form.
- * Supervision: direct and advise graduate students and technicians in study design and data collections methods. Supervise webmaster for Western Aspen Alliance.
- * Publication: author technical peer-reviewed papers in regional, national, and international journals.

Technical Writer/Editor Management and Engineering Technologies International (2004-2006).

- * Conduct library searches and maintain bibliographic database on all aspects of aspen ecology.
- * Authored major sections in a comprehensive synthesis of aspen ecology (see Shepperd et al. 2006 below).
- * Project editor, including assembly/organization of all text, photos, figures, tables, and appendices.
- * Manage project communications and maintain electronic manuscript files and backup systems.

Ecologist U.S. Forest Service, Rocky Mountain Research Station (June 1992-2004)

- * Forest Inventory & Analysis: analyze data, compile reports, review forest health indicators and issues.
- * Forest Health Monitoring Regional Analyst: analyze and publish data on issues in the Interior West.
- * Train/supervise interdisciplinary research crews (6-20 people) for field work in AZ, UT, NV, CO, ID, WY.
- * Plan, budget, and manage field work and personnel to collect ecological field data for a multi-state program.

Forestry Technician U.S. Forest Service, Rocky Mountain Research Station (June 1988-May 1992)

- * Conduct forest inventory, including plant I.D., mensuration, and multiple resource evaluations (MT, ID, UT).
- * Supervise field and aerial photo interpretation crews.

Naturalist/Instructor Max McGraw Wildlife Foundation, Dundee, Illinois (Feb.-May 1989)

- * Design and conduct natural history learning sessions for all ages.
- * Assisted in wildlife research projects and prescribed burning.

Biological Technician U.S. Forest Service, Bridger-Teton National Forest (June-Nov. 1987)

- * Mapped grizzly bear habitat by field I.D. of plant species.
- * Digitized all road and timber sale maps for forest.

Cartographic Aid U.S. Forest Service, Payette National Forest (August-October 1986)

- * Compiled watershed maps of select forest watersheds.
- * Digitize land-type and road maps for forest plan.

Project Assistant Environmental Remote Sensing Ctr., U. of Wisconsin-Madison (Sept. 1985-July 1986)

- * Ordered aerial photos of hazardous waste sites

- * Searched and updated computer base project bibliography.
- * Digitized aerial photos for color sequencing, enhancement, and analysis.

INSTRUCTION:

University Teaching:

- Honors Book Lab, "Think Wrong: how to conquer the status quo and do work that matters." Utah State University. Spring 2019.
- Visiting Fellow, University of Queensland, GPEM: *Biogeography and Geomorphology* (GEOS2103) and *Plants, People, and Environment* (GEOS3107). Fall 2014.
- *Planet Earth* (Honors 1360), Biosphere section ("Exploring biological systems and linkages to abiotic spheres"), co-taught with Dr. James P. Evans, Geology, Utah State University. Fall 2010-12.
- *Monitoring and Assessment in Natural Resource and Environmental Management* (Wildland Resources 4750); Utah State University. Fall 2009.
- *Collaborative Problem-Solving for Environment and Natural Resources* (ENVS 5000); Utah State University. Spring 2008, 2009.

Graduate Committees:

- Jan Šebesta (Postdoc): Supervised forest ecology research on three projects and introduced Dr. Šebesta (Mendel Univ., Brno, Czechia) to western U.S. aspen ecology via numerous field excursions and workshops. June 3 – Dec. 3, 2018.
- Kristen Heroy (PhD): "Foraging behavior and chemical defense: sheep and elk herbivory in quaking aspen" – Completed May 2018 - [Major Advisor - J. Villalba]
- Jamie Laatsch (MS): Tentative topic "Survey of USFS managers' use of climate change directives in current work" - Completed May 2014. [Major Advisor - Z. Ma]
- Cody Mittanck (MS): "Exploring a stable aspen niche within aspen and conifer forests of Utah" - Completed July 2012. [Major Advisor - R. Ryel]

Graduate Mentoring:

- Chad Oukrop (MS, 2010): "Assessing Quaking Aspen (*Populus tremuloides*) Decline on Cedar Mountain in Southern Utah Using Remote Sensing and Geographic Information Systems" [Major Advisor - R. Ryel]
- David Evans (MS, 2010): "A Spatiotemporal Analysis of Aspen Decline in Southern Utah's Cedar Mountain, Using Remote Sensing and Geographic Information Systems" [Major Advisor - R. Ryel]
- Richard Gardner (MS, 2013): tentative title -"Clonal diversity of aspen in two distinct Utah localities: How multiple clones may add to the resilience and persistence of this forest type" [Major Advisor - K. Mock]

Other:

- *Introduction to Cross-country skiing*, Nordic United, Logan, UT; 2008, 2009

- *Field techniques for Ecological inventory & monitoring*, U.S. Forest Service, Rocky Mountain Research Station, Ogden, UT (field sites throughout western U.S., eastern Europe, and eastern Africa); 1992-2004.
- *Data management, processing, analysis, and reporting for forest health monitoring*, U.S. Forest Service, Rocky Mountain Research Station, Ogden, UT (eastern Africa workshop), Voi, Kenya; 2002.
- *Field naturalist classes for K-12 and adults*, Max McGraw Wildlife Foundation, Elgin, IL; 1989.

SOCIETIES & SERVICE:

Affiliations:

Western Aspen Alliance (Director), <http://www.western-aspen-alliance.org/>, Utah State University, BLM, and USFS, 2008 – present.

Cache Clean Air Consortium – board member, 2018-present

Utah Conservation Corps Friends (Board Member), 2010 – present.

Natural Areas Association (Member), <http://www.naturalarea.org/>, 2006 – present

Utah Forest Restoration Working Group (Co-convener/science advisor), 2009-present.

Restoring the West (Organizing Committee), <http://www.restoringthewest.org/>, 2008 - present.

North American Forest Ecology Workshop (Co-Chair 2009; Organizing Committee 2009-present), <http://www.cof.orst.edu/cof/fs/research/silv/NAFEW.htm>.

Great Basin Landscape Conservation Cooperative (member), <http://greatbasinlcc.org>, 2011-present.

Cache County [Utah] Bike and Pedestrian Advisory Committee (Chair 2013-2014; Planning Committee and City Council Liaison), member 2007-present

Citizens Climate Lobby, Logan, UT chapter (Chair, letter writing committee) 2014 - present

Utah Bioneers Conference (Organizing Committee), 2008-2011.

Technical Reviewer/editor:

Guest Editor: *Forest Ecology & Management*, (Rogers/St. Clair) Quaking Aspen, Special Issue, 2013. Vol. 299.

* **Certificate of Outstanding Contributions in Reviewing**, *Forest Ecology & Management*, April 2013.

Journals: *Biological Conservation*, *Canadian J. Forest Res.*, *Community Ecology*, *Ecological Indicators*, *Ecological Applications*, *Ecology*, *Ecosphere*, *Fire*, *Folia Geobotanica*, *Forest Ecology & Management*, *J. of Biogeography*, *J. of Landscape Ecology*, *J. Plant Ecology*, *J. Vegetation Science*, *Northern J. of Applied Forestry*, *Plant Ecology*, *Rangeland Ecology & Management*, *Scandinavian J. Forest Res*, *The Bryologist*, *Western North American Naturalist*.

- *Forest Ecology & Management* Certificate of Outstanding Contribution in Reviewing (2013)

Grant Reviewer: National Science Foundation - Geography/Spatial Sciences Program (2015)

Agency General Technical Reports: USFS Southern Research Station; USFS Rocky Mountain Research Station; USFS National Forest Inventory & Analysis Program, Washington Office

PROFESSIONAL DEVELOPMENT:

PRESENTATIONS

- * National Forest Homeowners Fall Forum, Salt Lake City, Utah (**Keynote Speaker**) "Quaking Aspen – Science Meets Society in Mixed-Use Montane Forests"; Oct. 14, 2017
- * Great Basin Landscape Conservation Cooperative, Webinar Series. (**Invited; P.C. Rogers**) "Quaking Aspen Management: adaptive prescriptions for the 21st century"; Oct. 27, 2016 (153 participants).
- * 3rd North American Congress for Conservation Biology, Madison, Wisconsin. [Oral – **P.C. Rogers, J. Gale**] "World's largest organism' threatened by herbivory: restoration monitoring at the Pando aspen clone"; July 17-20, 2016.
- * 2016 Alaska SAF Annual Meeting, Willow, Alaska. (**Invited**) Keynote Speaker, **Rogers, P.C.** "Western Aspen Alliance: keeping science & management connected", April 21-23, 2016.
- * 10th North American Forest Ecology Workshop, Veracruz, Mexico. [Oral – **P.C. Rogers, J. Gale**] "Slaying a Giant One Bite at a Time: World's Largest Living Organism Threatened by Herbivory"; June 14-18, 2015.
- * Visiting seminar (**Invited**) at University of Idaho, Department of Forest, Rangeland, and Fire Sciences, *Aspen Mashup: functional types meet herbivory, fire, and climate in the West*, Moscow, Idaho, March 31, 2015.
- * **Invited** presentation at 2015 Family Forest Landowners & Managers Conference, *Quaking Aspen: striking gold on private forest lands*, Moscow, Idaho, March 30, 2015.
- * Utah Wildlife Society Meeting, Moab, Utah. *Quaking Aspen at the Residential-Wildland Interface: Ungulate Herbivory and Forest Conservation* [Oral Presentation] **P.C. Rogers, A. Jones, J. Catlin, J. Shuler, A. Morris, M. Kuhns, M. Pendergast** (presenter), and M. Coles-Ritchie. March 18-20, 2015.
- * Presentation to the Western Wyoming Aspen Working Group (**Invited**), *The Western Aspen Alliance: A Resource for Sustainable Aspen Ecosystems* [Webinar], Dec. 11, 2014.
- * Skiing & Trees (**Invited**) public presentation, *Covering Your Aspen: Ecology of Utah's State Tree*. Dec. 5, 2014, Alta, Utah.
- * University of Queensland (**Invited**), Seminar for the School of Geography Planning and Environmental Management, *Lessons From the Aspen Bush: A Biodiversity Oasis* Nov. 7, 2014.
- * International Union of Forest Research Organizations, *Forest structure and carbon storage potential of remnant forest fragments in Kenya* [Poster presentation - MacFarlane, D.W., Wekesa, C., **Rogers, P.C.**], Tour Leader, and Western Aspen Alliance exhibition booth, Oct. 2014.
- * BLM Forestry Leads meeting, invited presentation, **Rogers, P.C.**, "The Western Aspen Alliance: Promoting Sustainable Aspen Ecosystems." Salt Lake City, Oct. 7, 2014.
- * Online webinar sponsored by Western Aspen Alliance and Utah State University Forestry Extension, *Fire, Historical Change, and Resilience Management in Quaking Aspen* [Oral presentation - Rogers, P.C.] "Toward resilient aspen: reality, probability, and dynamic futures"; March 18, 2014.
- * Idaho Society for Range Management, Idaho Falls, Idaho, [**Invited** Oral Presentation - Rogers, P.C.] "Lessons from the Aspen Bush: Diversity Breeds Hope"; Jan. 14, 2014.
- * Restoring the West – Change Agents and Managing Forests for Resilience, Logan, Utah, Organizer/Oral presenter: [Oral – Rogers, P.C.] "The many faces of quaking aspen: biogeography meets resilience management"; Oct. 16-17, 2013.
- * 40th Natural Areas Conference, Chicago, IL. Oral/Poster Presentations: [Oral - Rogers, P.C.; J. Shuler; A. Jones; J. Catlin; A. Morris; M. Kuhns] "Quaking aspen at the developed wildland interface:

- Citizen science, collaboration, and conservation conundrums"; [Poster - Rogers, P.C.] "The Western Aspen Alliance: promoting sustainable aspen ecosystems in western North American"; Oct. 1-4, 2013.
- * 9th North American Forest Ecology Workshop, Bloomington, IN. Session Chair/Oral Presenter: [Session Chair] "Applied Aspen Biogeography"; [Oral – Rogers, P.C.] "Landscape monitoring for aspen resilience under browsing pressure"; June 16-20, 2013.
- * Western States and Provinces Deer & Elk Workshop, Missoula, Montana. Oral Presenter/Poster Presenter: [Oral - Rogers, P.C.; Mitanck, C.M.] "Relative impacts of elk, mule deer, and cattle on aspen habitat in the Book Cliffs, Utah and Colorado"; [Poster - Rogers, P.C.] "The Western Aspen Alliance: promoting sustainable aspen ecosystems in western North American"; May 6-9, 2013.
- * Resilient Forests: SAF 2012 National Convention, Spokane, Washington, Co-Author: [Poster - Gardiner, Long, Rogers, Mock] "Assessing Clonal Diversity of Quaking Aspen in the Intermountain West"; Oct. 24-28, 2012.
- * Public Presentation, Aspen Days, Jackson, WY, Presenter [Oral - Rogers, P.] "Quaking Aspen: how herbivores and fire shape forests"; Sept. 25, 2012.
- * Resilience in Quaking Aspen: Restoring Ecosystem Processes Through Applied Science, De Beque, Colorado, **Organizer/Presenter/Discussion Facilitator**: [Oral - **Rogers**, Landhäusser, Pinno, Ryel] "An Overview of Functional Classification for Western North American Aspen (*Populus tremuloides* Michx.); June 27-28, 2012.
- * BLM Webinar - Aspen Ecology and Management on BLM lands (Organized by BLM, USU Forestry Extension, Western Aspen Alliance), **Organizer/Presenter**: "Ungulate herbivory in aspen communities," **Rogers, P.** and "The Western Aspen Alliance: promoting sustainable aspen ecosystems," **Rogers, P.**; Bartos, D.; Ryel, R. [online], Feb. 22, 2012.
- * Society for Range Management, Spokane, WA.: [Invited Oral Presentation) – **Rogers, P.**; Bartos, D.; Ryel, R.] "The Western Aspen Alliance: shared science for effective land management"; 1/29 - 2/3, 2012.
- * Restoring the West – Sustaining forests, woodlands, and communities through biomass use, Logan, Utah, Organizer/poster presenter: "Modeling a stable aspen niche and its application to aspen restoration," Mitanck, C.; Ryel, R.; Rogers, P.; Ramsey, D. Bartos, D. Oct. 18-19, 2011.
- * Public Presentation, Swaner EcoCenter, Park City, Utah. Presenter: [Invited Oral Presentation – **Rogers, P.**] "Aspen in the Web of Life: Defining Threats, Dispelling Myths"; Sept. 13, 2011.
- * 8th North American Forest Ecology Workshop, Roanoke, VI. Session Chair/Oral Presenter: [Session Chair] "Applied Forest Ecology"; [Oral – Rogers, P.C.; Landhäusser, S.; Pinno, B.; Ryel, R.] "A functional framework for improving quaking aspen management in western North America"; June 19-23, 2011.
- * Restoring the West – Managing Plant and Animal Conflicts, Logan, Utah, Organizer/session moderator/presenter: [Oral Presenter - Rogers, P.C. "Quaking aspen (*Populus tremuloides*) on Cedar Mountain, Utah: forest and genetic structures at the landscape scale," Oct. 26-27, 2010.
- * PRIFOR: Ecology, Conservation, and Management, Sundsvall, Sweden. "Quaking aspen (*Populus tremuloides*) on Cedar Mountain, Utah: forest and genetic structures at the landscape scale" [Oral – **Rogers, P.C.**; Gardner, R.; Leffler, A.J.) & "Issues Affecting North American Aspen - with a view toward developing an international aspen alliance" (Poster - **Rogers, P.C.**), August 9-13, 2010.
- * 94th Annual ESA Meeting, Albuquerque, NM. [Oral – Leffler, A.J.; Rogers, P.C.; Ryel, R.J.] "A tale of two landscapes: Assessing aspen in northern and southern Utah with ecological indicators," August 2-7, 2009.
- * 7th North American Forest Ecology Workshop, Logan, UT. Workshop Co-organizer/Session Chair/Oral and Poster Presenter: [Oral – Rogers, P.C.] "Aspen Ecology in the United States: recent advances and future needs"; [Oral – Leffler, A.J.; Rogers, P.C.; Oucrop, C.; Evans, D., Ryel, R.J.] "Aspen condition on Cedar Mountain, Utah: ecological indicators of decline"; "[Poster – Rogers, P.C.; Bartos, D.L.; Ryel, R.J.] "The Western Aspen Alliance: Promoting Sustainable Aspen Ecosystems in Western North America," June 22-26, 2009.

- * Aspen Restoration in the Northern Rockies, University of Montana, Missoula, MT (Invited Oral Presentation - Rogers, P.C.). “The Western Aspen Alliance: uniting scientists and managers for sustainable aspen ecosystems.” April 3-4, 2009.
- * The '88 Fires: Yellowstone and Beyond, Jackson, Wyoming, [Poster - **Rogers, P.C.**, Bartos, D., Ryel, R.J.] “The Western Aspen Alliance: Promoting Sustainable Aspen Ecosystems in Western North America,” Sept. 22-27, 2008.
- * Restoring the West – Frontiers in Aspen Restoration conference, Logan, Utah, **Organizer/presenter/workshop facilitator: [Rogers, P.C.]** “Historical Landscape Ecology of Seral Aspen in the Western U.S.,” Sept. 16-18, 2008.
- * 6th North American Forest Ecology Workshop, Vancouver, BC. [Oral Presenter - **Rogers, P.C.**] “Change in aspen dependent species with succession: the case for epiphytic macrolichens as indicator species,” June 18-22, 2007.
- * Managing Aspen in Western Landscapes Conference, Cedar City, Utah, [Oral Presenter- **Rogers, P.C.**] “Using forest inventory data to assess aspen health in Utah,” Sept. 22, 2004.
- * 89th Ecological Society of America Meeting, Portland, Oregon, [Oral Presenter - **Rogers, P.C.**] “Monitoring statewide aspen community health with extensive inventory data in Utah,” August 1–6, 2004.
- * 4th North American Forest Ecology Workshop, Corvallis, Oregon. **Session Chair: [Oral Presenter- Rogers, P.C.]** “Inventory, Monitoring, and Change Detection,” June 16-20, 2003.
- * 3rd North American Forest Ecology Workshop, Duluth, Minnesota. Session Chair: [Oral Presenter- **Rogers, P.C.**] “Using inventory and monitoring data to evaluate forest change,” June 30-July 1, 2001.
- * Managing Aspen in Western Landscapes Conference, Cedar City, Utah, [Oral Presenter- **Rogers, P.C.**] “Using forest inventory data to assess aspen health in Utah,” Sept. 22, 2004.
- * 89th Ecological Society of America Meeting, Portland, Oregon, [Oral Presenter - **Rogers, P.C.**] “Monitoring statewide aspen community health with extensive inventory data in Utah,” August 1–6, 2004.
- * 3rd North American Forest Ecology Workshop, Duluth, Minnesota. Session Chair: [Oral Presenter- **Rogers, P.C.**] “Using inventory and monitoring data to evaluate forest change,” June 30-July 1, 2001.
- * 2nd North American Forest Ecology Workshop, Orono, Maine: [Oral Presenter- **Rogers, P.C.**] “Forest health and aspen decline in the Southern Rockies ecoregion,” June 27-30, 1999.
- * National Forest Health Monitoring Workshops 1996-2000, 2002, 2004. Reporting and analysis focus group chairman ('96-98) and paper presentation ('98,'99,'02).

TRAINING

- * Summer Research Internship, Aspen & Lichen Ecology of Sweden, Dr. Henrik Hedenås, Dept. of Ecology & Environmental Science, Umeå University, Sweden, May 26 – July 23, 2006.
- * PC-ORD (software for ordination of ecological community data) training seminar, Portland, OR, May 2006.
- * International trainer, Forest Health Monitoring field methods and analysis: Belarus (1995), Kenya and Tanzania (2001, 2002, 2006)
- * Disturbance Ecology Center Detail (2 months), USDA Forest Service, Rocky Mountain Research Station, Logan, Utah and Utah State University. January-February 1995.
- * Pollution Bioindicators Workshop, Research Triangle Park, NC, Dec.1994.
- * Fire Danger and Forest Health Conference, Spokane, WA, Sept. 1994.
- * Lichen Indicator National Trainers Training (Forest Health Monitoring), Portland, OR, May, 1994; Tucson, AZ, ('02-'04).
- * Quality Assurance, Quality Control Meeting (Forest Health Monitoring), Las Vegas, NV, April, 1994.
- * Statistical Applications Training (Office of Personnel Management), Seattle, WA, Jan. 1994