

Peter Z. Fulé

School of Forestry and Ecological Restoration Institute
Northern Arizona University, Box 15018, Flagstaff AZ 86011 USA
Tel +1-928-523-1463; Fax +1-928-523-0296; E-mail Pete.Fule@nau.edu
www.for.nau.edu/about/faculty/pzf.htm

Education:

- Ph.D. Forest Ecology 1996** Northern Arizona University, Flagstaff AZ (with distinction).
Dissertation: *Fire Disturbance Regimes and Forest Structure in Pine Ecosystems of Arizona, U.S.A., and Durango, Mexico.*
- M.S. Forestry 1990** Northern Arizona University, Flagstaff AZ (with distinction).
Thesis: *Predicting forest floor fuel loading under ponderosa pine at Grand Canyon National Park, Arizona.*
- B.A. Chemistry 1986** Vassar College, Poughkeepsie NY (with honors).
Thesis: *Crystal and molecular structure of rotenone.*

Positions Held:

- 2004-present **Associate Professor**, School of Forestry and **Associate Director for Ecological Research**, Ecological Restoration Institute, Northern Arizona University, P.O. Box 15018, Flagstaff AZ.
- 2000-2004 **Assistant Professor**, School of Forestry and **Associate Director for Ecological Research** (since 2002), Ecological Restoration Institute, Northern Arizona University, P.O. Box 15018, Flagstaff AZ.
- 1998-2000 **Assistant Research Professor**, School of Forestry and **Staff Director**, Ecological Restoration Institute, Northern Arizona University, P.O. Box 15018, Flagstaff AZ.
- 1992-1998 **Sr. Research Specialist**, School of Forestry, Northern Arizona University, P.O. Box 15018, Flagstaff AZ.
- 1991-1992 **Forester/Fire Planning**, Bureau of Indian Affairs, Albuquerque Area Office, P.O. Box 26567, Albuquerque NM.
Completed geographic information system (GIS) analysis for fire management planning and NEPA environmental analysis on Native American lands in New Mexico.
- 1990-1991 **Peace Corps Volunteer Forester/Agroforestry & Extension**, U.S. Peace Corps, Casilla 1522, La Paz, Bolivia, South America.
- 1990 **Forester**, Southern Ute Agency, Bureau of Indian Affairs, Ignacio CO.
- 1988-1990 **Graduate Research Assistant**, Forestry, Northern Arizona University, Flagstaff AZ.
- 1989 **Firefighter/Prescribed Fire**, Grand Canyon National Park, AZ.
- 1983-1988 **Construction Foreman/Carpenter**, Sierra Vista Construction, Chama NM.

Special skills:

- Fluent in Spanish and native speaker of Hungarian.
Field experience: ecological sampling, organization and supervision of field crews.
Cross-cultural experience: living and working in Hispanic, Native American, and European communities in the US and Latin America.

Publications

Book chapters

- Kaufmann, M.R., K. Ryan, P.Z. Fulé, and W.R. Romme. 2004. Restoration of ponderosa pine forests in the interior western United States after logging, grazing, and fire suppression. Pp. 481-500 in: Stanturf, J.A., and P. Madsen (eds.), *Restoration of Boreal and Temperate Forests*. CRC Press.
- Fulé, P.Z. Monitoring. 2003. In: Friederici, P. G. (ed.), *Ecological Restoration of Southwestern Ponderosa Pine Forests: A Sourcebook for Research and Application*. Island Press, Washington, D.C.
- Fulé, P.Z. 2001. *Why Forests Need to Burn*. Science Year Special Report 2002 (pages 42-55), World Book Publishing, Chicago, IL.
- Stahle, D.W., J. Villanueva, M.K. Cleaveland, M.D. Therrell, G.J. Paull, B.T. Burns, W. Salinas, H. Suzan, and P.Z. Fulé. 2000. Recent Tree-Ring Research in Mexico. In: *Dendrocronología en América Latina*, F.A. Roig (compiler), EDIUNC, Mendoza, Argentina.

Peer-reviewed refereed journals

- Kaye, J.P., Hart, S.C., Fulé, P.Z., Covington, W.W., M.M. Moore, and M.W. Kaye. In press. Initial carbon, nitrogen, and phosphorus fluxes following ponderosa pine restoration treatments. *Ecological Applications*.
- Cocke, A.E., P.Z. Fulé, and J.E. Crouse. In press. Comparison of burn severity assessments using differenced normalized burn ratio (Δ NBR) and ground data. *International Journal of Wildland Fire*.
- Martin, S.L., T.C. Theimer, and P.Z. Fulé. In press. Ponderosa pine restoration does not affect turkey roost site use in northern Arizona. *The Wildlife Society Bulletin*.
- Fulé, P.Z., J. Villanueva-Díaz, and M. Ramos-Gómez. 2005. Fire regime in a conservation reserve, Chihuahua, México. *Canadian Journal of Forest Research* 35:320-330.
- Fisher, M.A., and P.Z. Fulé. 2004. Changes in forest vegetation and arbuscular mycorrhizae along a steep elevation gradient in Arizona. *Forest Ecology and Management* 200:293-311.
- Jerman, J.L., P.J. Gould, and P.Z. Fulé. 2004. Slash compression treatments reduced tree mortality from prescribed fire in southwestern ponderosa pine. *Western Journal of Applied Forestry* 19(3):149-153.
- Moore, M.M., D.W. Huffman, P.Z. Fulé, W. W. Covington, and J.E. Crouse. 2004. Comparison of historical and contemporary forest structure and composition on permanent plots in southwestern ponderosa pine forests. *Forest Science* 50(2):162-176.
- Fulé, P.Z., A.E. Cocke, T.A. Heinlein, and W.W. Covington. 2004. Effects of an intense prescribed forest fire: is it ecological restoration? *Restoration Ecology* 12(2):220-230.
- Gildar, C.N., P.Z. Fulé, and W.W. Covington. 2004. Plant community variability in ponderosa pine forest has implications for reference conditions. *Natural Areas Journal* 24(2):101-111.
- Fulé, P.Z., J.E. Crouse, A.E. Cocke, M.M. Moore, and W.W. Covington. 2004. Changes in Canopy Fuels and Potential Fire Behavior 1880-2040: Grand Canyon, Arizona. *Ecological Modelling* 175:231-248.
- Waltz, A.E.M., P.Z. Fulé, W.W. Covington, and M.M. Moore. 2003. Diversity in ponderosa pine forest structure following ecological restoration treatments. *Forest Science* 49(6):885-900.
- Korb, J.E., W.W. Covington, and P.Z. Fulé. 2003. Sampling techniques influence understory plant trajectories following restoration—an example from ponderosa pine restoration. *Restoration Ecology* 11(4):504-515.
- Fulé, P.Z., J.E. Crouse, T.A. Heinlein, M.M. Moore, W.W. Covington, and G. Verkamp. 2003. Mixed-Severity Fire Regime in a High-Elevation Forest: Grand Canyon, Arizona. *Landscape Ecology* 18:465-486.
- Fulé, P.Z., T.A. Heinlein, W.W. Covington, and M.M. Moore. 2003. Assessing fire regimes on Grand Canyon landscapes with fire scar and fire record data. *International Journal of Wildland Fire* 12(2):129-145.
- Rodríguez-Trejo, D.A., and P.Z. Fulé. 2003. Fire ecology of Mexican pines and a fire management proposal. *International Journal of Wildland Fire* 12(1):23-37.
- Fulé, P.Z., W.W. Covington, H.B. Smith, J.D. Springer, T.A. Heinlein, K.D. Huisinga, and M.M. Moore. 2002. Comparing ecological restoration alternatives: Grand Canyon, Arizona. *Forest Ecology and Management* 170:19-41.
- Fulé, P.Z., W.W. Covington, M.M. Moore, T.A. Heinlein, and A.E.M. Waltz. 2002. Natural variability in forests of Grand Canyon, USA. *Journal of Biogeography* 29:31-47.
- Covington, W.W., P.Z. Fulé, S.C. Hart, and R.P. Weaver. 2001. Modeling ecological restoration effects on ponderosa pine forest structure. *Restoration Ecology* 9(4):421-431.

- Fulé, P.Z., A.E.M. Waltz, W.W. Covington, and T.A. Heinlein. 2001. Measuring forest restoration effectiveness in hazardous fuels reduction. *Journal of Forestry* 99(11):24-29.
- Covington, W.W., P.Z. Fulé, T.M. Alcoze, and R.K. Vance. 2000. Learning by doing: ecological restoration education at Northern Arizona University. *Journal of Forestry* 98(10):30-34.
- Fulé, P.Z., A. García-Arévalo, and W.W. Covington. 2000. Effects of an intense wildfire in a Mexican oak-pine forest. *Forest Science* 46(1):52-61.
- Moore, M.M., W.W. Covington, and P.Z. Fulé. 1999. Reference conditions and ecological restoration: A southwestern ponderosa pine perspective. *Ecological Applications* 9(4):1266-1277.
- Fulé, P.Z., and W.W. Covington. 1999. Fire regime changes in La Michilía Biosphere Reserve, Durango, Mexico. *Conservation Biology* 13(3):640-652.
- Mast, J.N., P.Z. Fulé, M.M. Moore, W.W. Covington, and A. Waltz. 1999. Restoration of presettlement age structure of an Arizona ponderosa pine forest. *Ecological Applications* 9(1):228-239.
- Fulé, P.Z., and W.W. Covington. 1998. Spatial patterns of Mexican pine-oak forests under different recent fire regimes. *Plant Ecology* 134:197-209.
- Fulé, P.Z., and W.W. Covington. 1997. Fire regimes and forest structure in the Sierra Madre Occidental, Durango, Mexico. *Acta Botanica Mexicana* 41:43-79.
- Fulé, P.Z., M.M. Moore, and W.W. Covington. 1997. Determining reference conditions for ecosystem management in southwestern ponderosa pine forests. *Ecological Applications* 7(3):895-908.
- Covington, W.W., P.Z. Fulé, M.M. Moore, S.C. Hart, T.E. Kolb, J.N. Mast, S.S. Sackett, and M.R. Wagner. 1997. Restoration of ecosystem health in southwestern ponderosa pine forests. *Journal of Forestry* 95(4):23-29.
- Fulé, P.Z., and W.W. Covington. 1996. Changing fire regimes in Mexican pine forests: ecological and management implications. *Journal of Forestry* 94(10):33-38.
- Fulé, P.Z., and W.W. Covington. 1994. Fire regime disruption and pine-oak forest structure in the Sierra Madre Occidental, Durango, Mexico. *Restoration Ecology* 2(4):261-272.
- Fulé, P.Z., and W.W. Covington. 1994. Double sampling increases the efficiency of forest floor inventories for Arizona ponderosa pine forests. *International Journal of Wildland Fire* 4(1):3-10.
- Rossi, M., P.Z. Fulé, and M.R. Taylor. 1988. Conformational flexibility in the molecular structure of rotenone, a naturally occurring insecticide. *Bioorganic Chemistry* 16:376-387.

In review

- Moore, M.M., C.A. Casey., J.D. Bakker, J.D. Springer, P.Z. Fulé, W.W. Covington, and D.C. Laughlin. Herbaceous Response to Restoration Treatments in a Ponderosa Pine Forest, 1992-2004. *Rangeland Ecology and Management*.
- Fulé, P.Z., D.C. Laughlin, and W.W. Covington. Pine-oak forest dynamics five years after ecological restoration treatments. *Forest Ecology and Management*.
- Cocke, A.E., P.Z. Fulé, and J.E. Crouse. Forest change on a steep mountain gradient after extended fire exclusion: San Francisco Peaks, Arizona, USA. *Journal of Applied Ecology*.
- Fulé, P.Z., W.W. Covington, M.T. Stoddard, and D. Bertolette. "Minimal-impact" restoration treatments have minimal effects on forest structure and fuels at Grand Canyon, USA. *Conservation Biology*.
- Heinlein, T.A., M.M. Moore, P.Z. Fulé, and W.W. Covington. Fire history of two lower elevation mixed conifer sites: San Francisco Peaks, Arizona, USA. *International Journal of Wildland Fire*.
- Waskiewicz, J.D., P.Z. Fulé, and P. Beier. Quantifying the deterioration of ponderosa pine snags in northern Arizona. *Western Journal of Applied Forestry*.
- Huisinga, K.D., D.C. Laughlin, P.Z. Fulé, J.D. Springer, and C.M. McGlone. Effects of an intense prescribed fire on ground-flora in a mixed conifer forest. *Journal of the Torrey Botanical Society*.
- Stephens, S.L., and P.Z. Fulé. Western pine forests with continuing frequent fire regimes: possible reference sites for management. *Journal of Forestry*.
- Bamgartner, K.H., and P.Z. Fulé. Survival and sprouting responses of Chihuahua pine after the Rodeo-Chediski fire in Arizona. *Western North American Naturalist*.

Peer-reviewed conference proceedings

- Fulé, P.Z., J.D. Springer, D.W. Huffman, and W.W. Covington. 2001. Response of a Rare Endemic, *Penstemon clutei*, to Burning and Reduced Belowground Competition. Pages 139-152 in Maschinski, J., and L. Holter (technical coordinators), *Southwestern Rare and Endangered Plants: Proceedings of the Third Conference*. Proc. RMRS-P-23. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Fulé, P.Z., C. McHugh, T.A. Heinlein, and W.W. Covington. 2001. Potential fire behavior is reduced following forest restoration treatments (peer-reviewed). Pages 28-35 in Vance, G.K., C.B. Edminster, W.W. Covington, and J.A. Blake (compilers), *Ponderosa Pine Ecosystems Restoration and Conservation: Steps Toward Stewardship*. Proc. RMRS-P-22. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Kolb, T.E., P.Z. Fulé, M.R. Wagner, and W.W. Covington. 2001. Six-year changes in mortality and crown condition of old-growth ponderosa pines in different ecological restoration treatments at the G.A. Pearson Natural Area (peer-reviewed). Pages 61-66 in Vance, G.K., C.B. Edminster, W.W. Covington, and J.A. Blake (compilers), *Ponderosa Pine Ecosystems Restoration and Conservation: Steps Toward Stewardship*. Proc. RMRS-P-22. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Huffman, D.W., M.M. Moore, W.W. Covington, J.E. Crouse, and P.Z. Fulé. 2001. Ponderosa pine forest reconstruction: comparisons with historical data (peer-reviewed). Pages 3-8 in Vance, G.K., C.B. Edminster, W.W. Covington, and J.A. Blake (compilers), *Ponderosa Pine Ecosystems Restoration and Conservation: Steps Toward Stewardship*. Proc. RMRS-P-22. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Springer, J.D., A.E.M. Waltz, P.Z. Fulé, M.M. Moore, and W.W. Covington. 2001. Seeding versus natural regeneration: a comparison of vegetation change following thinning and burning in ponderosa pine (peer-reviewed). Pages 67-73 in Vance, G.K., C.B. Edminster, W.W. Covington, and J.A. Blake (compilers), *Ponderosa Pine Ecosystems Restoration and Conservation: Steps Toward Stewardship*. Proc. RMRS-P-22. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Fulé, P.Z., T.A. Heinlein, W.W. Covington, and M.M. Moore. 2000. Continuing fire regimes in remote forests of Grand Canyon National Park (peer-reviewed). *Proceedings: Wilderness Science in a Time of Change*. USDA Forest Service Proceedings RMRS-P-15-VOL-5: 242-248.
- Heinlein, T.A., W.W. Covington, P.Z. Fulé, M.M. Moore, and H.B. Smith. 2000. Development of ecological restoration experiments in fire adapted forests at Grand Canyon National Park (peer-reviewed). *Proceedings: Wilderness Science in a Time of Change*. USDA Forest Service Proceedings RMRS-P-15-VOL-5: 249-254.

Theses

- Fulé, P.Z. 1996. *Fire Regimes and Forest Structure in Pine Ecosystems of Arizona, U.S.A., and Durango, Mexico*. Ph.D. dissertation, Northern Arizona University, Flagstaff, AZ.
- Fulé, P.Z. 1990. *Predicting Forest Floor Fuel Loading Under Ponderosa Pine at Grand Canyon National Park, Arizona*. Master's thesis, Northern Arizona University, Flagstaff, AZ.
- Fulé, P.Z. 1985. *Crystal and Molecular Structure of Rotenone*. Senior thesis, Vassar College, Poughkeepsie, NY

Other publications

- Korb, J.E., P.Z. Fulé, and B. Gideon. In press. The effect of different harvest treatments on soil disturbance. *Ecological Restoration*.
- Fulé, P.Z. In press. Book Review: *In Fire's Way: A Practical Guide To Life In The Wildfire Danger Zone and Smokechasing*. New Mexico Historical Review.
- Crouse, J.E., and P.Z. Fulé. 2003. Species and canopy cover map development using Landsat 7 Enhanced Thematic Mapper Imagery for Grand Canyon National Park. Proceedings: Ninth Forest Service Remote Sensing Applications Conference. USDA Forest Service/American Society for Photogrammetry and Remote Sensing (electronic publication).
- Fulé, P.Z. 2003. Book Review: *Flames in our Forest: Disaster or Renewal?* *Ecological Restoration* 21(1):66-67.
- Elseoad, A., P.Z. Fulé, and W.W. Covington. 2003. Forest road revegetation: effects of seeding and soil amendments. *Ecological Restoration* 21(3):194-199.

- Fulé, P.Z., G. Verkamp, A.E.M. Waltz, and W. W. Covington. 2002. Burning under old-growth ponderosa pines on lava soils. *Fire Management Today* 62(3):47-49.
- Crouse, J.E., and P.Z. Fulé. 2001. Species and canopy cover map development using Landsat 7 Enhanced Thematic Mapper Imagery for Grand Canyon National Park. Putting the Pieces Together: Practicing Forest Ecosystem Restoration Conference, April 25 - 28, 2001, Flagstaff, AZ.
- Alcoze, T.A., W.W. Covington, P.Z. Fulé, and Ecological Restoration Principles class. "Restoration Ecology" – Letter to the Editor, *Science* 287:2159 (24 March 2000).
- Covington, W.W., M.M. Moore, and P.Z. Fulé. 2000. Restoration of ponderosa pine ecosystems: concepts and principles. Page 103 in *Proceedings of the 21st Fire Ecology Conference*. Tall Timbers Research Station, Tallahassee, FL.
- Fulé, P.Z., and W.W. Covington. 1997. Fire regimes on an environmental gradient in a dry Sierra Madre forest (abstract). *Bulletin of the Ecological Society of America* 78(4):92.
- Covington, W.W., P.Z. Fulé, M.M. Moore, S.C. Hart, T.E. Kolb, J.N. Mast, S.S. Sackett, and M.R. Wagner. 1997. Restoration of ecosystem health in southwestern ponderosa pine forests (abstract). *Bulletin of the Ecological Society of America* 78(4):73.
- Fulé, P.Z., and W.W. Covington. 1995. Changes in fire regimes and stand structures of unharvested Petran and Madrean pine forests. Pages 408-415 in DeBano, L.F., and others (technical coordinators), *Biodiversity and Management of the Madrean Archipelago: the Sky Islands of Southwestern United States and Northwestern Mexico*. September 19-23, 1994, Tucson, AZ. USDA Forest Service General Technical report RM-GTR-264.
- Fulé, P.Z., and W.W. Covington. 1995. Conservation of pine-oak forests in northern Mexico. Pages 80-88 in Covington, W.W., and P.K. Wagner (tech. coord.), *Conference on Adaptive Ecosystem Restoration and Management: restoration of Cordilleran Conifer Landscapes of North America*. June 6-8, 1995, Flagstaff, AZ.
- Fulé, P.Z., and W.W. Covington. 1994. Fire regimes and forest structure in the Sierra Madre Occidental, Durango, Mexico. Page 89 in Aguirre-Bravo, C., and others (tech. eds.), *Partnerships for Sustainable Forest Ecosystem Management. Fifth Mexico/United States Biennial Symposium*, October 17-20, 1994, Guadalajara, Jalisco, Mexico. USDA Forest Service General Technical Report RM-GTR-266.
- Moore, M.M., W.W. Covington, and P.Z. Fulé. 1993. Spatial changes in ponderosa pine since settlement. *Bulletin of the Ecological Society of America* 74:365.
- Covington, W.W., M.M. Moore, and P. Fulé. 1993. Ecological restoration of southwestern ponderosa pine. Poster paper presented at *Fourth International Mexico/US Symposium on Sustainability*, April 19-23, 1993, Santa Fe, New Mexico. USDA Forest Service General Technical Report RM-240, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO.
- Fulé, P., and S. Bradshaw. 1992. Wildfire management planning for New Mexico's Native American lands. *GeoInfo Systems* 2(6):34-43.

Reports

- Fulé, P.Z., and W.W. Covington. 2004. Comprehensive report on forest health restoration effects: experimental sites remeasured one, five, and ten years after treatments. Final report to the USDA Forest Service under #03-DG-11031600-088.
- Fulé, P.Z., M. Fisher, A.E. Cocke, J.E. Crouse, M.M. Moore, and W.W. Covington. 2004. Fire in the urban/wildland interface: a landscape modeling approach. Final report, Research Joint Venture Agreement No. RMRS-99158-RJVA. USDA Forest Service, Rocky Mountain Research Station, Flagstaff, AZ.
- Fulé, P.Z., J.E. Crouse, A.E. Cocke, M.M. Moore, and W.W. Covington. 2003. Changes in canopy fuels and potential fire behavior 1880-2040: Grand Canyon, Arizona. Final Report to the Joint Fire Science Program, CA-1200-99-009-NAU 04 (Part 2).
- Fulé, P.Z., J.E. Crouse, M. Daniels, J. Springer, T.A. Heinlein, M.M. Moore, W.W. Covington, and G. Verkamp. 2002. Mixed-Severity Fire Regime in a High-Elevation Forest: Grand Canyon, Arizona. Final Report to the Joint Fire Science Program, CA-1200-99-009-NAU 04 (Part 1).
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- Fulé, P.Z., J.D. Waskiewicz, and C.C. Avery. 2001. Periodic remeasurement of the Gus Pearson Natural Area. Final report, Research Joint Venture Agreement 01-JV-11221615-075, USDA Forest Service, Rocky Mountain Research Station, Flagstaff, AZ.
- Waltz, A., P. Fulé, and J. Springer. 2001. Mt. Trumbull Experimental Blocks: One Year Following Treatment. Report to Bureau of Land Management, Arizona Strip District, St. George, UT.
- Fulé, P.Z., G. Verkamp, and A. Waltz. 2001. Tree Mortality Associated with Prescribed Burning at Mt. Trumbull, Arizona. Report to Bureau of Land Management, Arizona Strip District, St. George, UT.
- Heinlein, T.A., J.D. Springer, and P.Z. Fulé. 2001. Southwestern forests ecological restoration project. Final Report to USDA Forest Service, Rocky Mountain Research Station, Flagstaff, AZ.
- Springer, J.D., P.Z. Fulé, K.D. Huisinga, M.M. Moore, and W.W. Covington. 2000. Herbaceous and shrub communities in Grand Canyon forests. *In* Covington, W.W., M.M. Moore, P.Z. Fulé, and H.B. Smith, Final Report on Grand Canyon Forest Ecosystem Restoration project, Grand Canyon National Park, Arizona.
- Fulé, P.Z., W.W. Covington, M.M. Moore, T.A. Heinlein, and A.E.M. Waltz. 2000. Natural variability in Grand Canyon Forests. *In* Covington, W.W., M.M. Moore, P.Z. Fulé, and H.B. Smith, Final Report on Grand Canyon Forest Ecosystem Restoration project, Grand Canyon National Park, Arizona.
- Moore, M.M., D.W. Huffman, W.W. Covington, J.E. Crouse, P.Z. Fulé, and W.H. Moir. 2000. Southwestern ponderosa pine forest structure and fire regime disruption date: re-measurement of historical permanent forest plots. Final report to USDA Forest Service, Rocky Mountain Research Station, Flagstaff, AZ.
- Waltz, A., P.Z. Fulé, and G. Verkamp (compilers). 2000. Restoration of Ecosystem Health in Southwestern Forests. Comprehensive Report 1995-2000 to Bureau of Land Management, Arizona Strip District, St. George, UT.
- Heinlein, T.A., P.Z. Fulé, A.E.M. Waltz, and J.D. Springer. 1999. Changes in ponderosa pine forests of the Mt. Trumbull wilderness. Report to Bureau of Land Management, Arizona Strip District.
- Waltz, A.E.M., and P.Z. Fulé. 1998. Changes in ponderosa pine forests of the Mt. Logan wilderness. Report to Bureau of Land Management, Arizona Strip District.
- Fulé, P.Z., M.M. Moore, and W.W. Covington. 1995. Changes in Ponderosa Pine--Gambel Oak Forest Structure Following Fire Regime Disruption in Northern Arizona: Camp Navajo Old-Growth Forest Study. Final Report to Arizona Army National Guard, September 30, 1995.
- Fulé, P.Z., and W.W. Covington. 1995. Fire Regimes and Forest Structure in the Sierra Madre Occidental, Durango, Mexico. Final Report to USDA Forest Service Pacific Northwest Experiment Station, Portland, OR. Cooperative Agreement PNW 93-0456. December 31, 1995.

Presentations, Lectures, Posters

- Fulé, P.Z. Forest restoration field trip—Gus Pearson Natural Area. Project CENTRL (Arizona Dept. of Agriculture), October 15, 2004.
- Fulé, P.Z. After severe forest fires—what’s next? Flagstaff Festival of Science in-school presentation, Cromer Elementary School (Mr. Zanone), October 11, 2004.
- Fulé, P.Z. After severe forest fires—what’s next? Flagstaff Festival of Science in-school presentation, Sechrist Elementary School (Mr. Smith), September 28, 2004.
- Fulé, P.Z. After severe forest fires—what’s next? Flagstaff Festival of Science in-school presentation, Sechrist Elementary School (Ms. Wright), September 22, 2004.
- Fulé, P.Z., J.D. Springer, W.W. Covington, and J.E. Korb. Changes in tree structure, forest floor, and plant communities following restoration treatments in Arizona. Ecological Society of America annual meeting, Portland, OR, August 1-7, 2004.
- Fulé, P.Z. Fire and forest restoration. Forest Restoration Workshop, Jobs and Biodiversity Coalition, April 21, 2004, Silver City, NM.
- Long, R., and P. Fulé. An uncommon undergraduate experience: conducting research and fieldwork in ecological restoration. Natural Resource Education for a Culturally Diverse Audience: Fifth Biennial Conference on University Education in Natural Resources, March 14-17, 2004, Flagstaff, AZ.
- Fulé, P.Z. Fire and restoration in the greater Grand Canyon region. Colloquium in the Life Sciences, Colorado State University, Fort Collins, CO, March 1, 2004.

- Martin, S., Theimer, T., Fulé, P.Z. Effects of ponderosa pine forest restoration on Merriam's turkey use of historical roost sites in Northern Arizona. 35th Joint Annual Meeting of the Arizona and New Mexico Chapters of the American Fisheries Society and The Wildlife Society, Safford, Arizona. February 6, 2004.
- Restoration science and prescriptions. P.Z. Fulé. Presentation to Building Trust for Forest Restoration Through Collaborative Partnerships Symposium, Showlow, AZ, December 5, 2003.
- Fire, forest change, and ecological restoration. P.Z. Fulé. Presentation to the R1-R4 Joint Forest Management Meeting, Phoenix, AZ, December 3, 2003.
- Fulé, P.Z., J.E. Crouse, T.A. Heinlein, and W.W. Covington. Fire, forest change, and restoration at Grand Canyon. Second International Wildland Fire Ecology and Fire Management Congress. November 17, 2003, Orlando, FL.
- Van Horne, M.L., and P.Z. Fulé. Testing fire history methods: preliminary results addressing sampling uncertainty. Second International Wildland Fire Ecology and Fire Management Congress. November 17, 2003, Orlando, FL.
- Fisher, M., P.Z. Fulé, and N.C. Johnson. 2003. Competition between native grasses in the presence of arbuscular mycorrhizal communities from different elevations. Seventh Biennial Conference of Research on the Colorado Plateau, Flagstaff, AZ, November 5, 2003.
- Van Horne, M.L., and P.Z. Fulé. Testing fire history methods: preliminary results addressing sampling uncertainty. Seventh Biennial Conference of Research on the Colorado Plateau, Flagstaff, AZ, November 5, 2003.
- Natural disturbance regimes in mixed conifer. P.Z. Fulé. Presentation to Goshawk guidelines field trip, North Kaibab Ranger District, October 24, 2003.
- Stand Structure and Fire Behavior, Rodeo-Chediski Fire. P.Z. Fulé. Presentation to Wildland Fire Leadership Council (Interagency), Field trip to Rodeo-Chediski fire, White Mountain Apache tribal lands, AZ, October 15, 2003.
- Grand Canyon forest fires: past, present, and future. P.Z. Fulé. School of Forestry seminar, Northern Arizona University, Flagstaff, October 1, 2003.
- Effects of ponderosa pine forest restoration on Merriam's turkey use of historical roost sites in northern Arizona. S.L. Martin, T. Theimer, P.Z. Fulé. The Wildlife Society annual conference, Burlington, VT, September 6-10, 2003.
- Altered fire regimes and forest thinning in major biomes. T.E. Kolb and P.Z. Fulé. 2003 Southwest Drought Summit, Flagstaff, AZ, May 12, 2003.
- Multiple studies on an elevational gradient, San Francisco Peaks. A.E. Cocke, M.A. Fisher, J.E. Crouse, and P.Z. Fulé. Southwest Fire Initiative Conference, Flagstaff, AZ, April 29, 2003.
- Fire history and landscape dynamics within Mexican Spotted Owl habitat at Walnut Canyon National Monument, AZ. S. Knox, W. Romme, P. Fulé, and P. Whitefield. Southwest Fire Initiative Conference, Flagstaff, AZ, April 29, 2003.
- Quantifying forest reference conditions for ecological restoration: the Woolsey plots. A. Meador, M. Moore, W. Covington, P. Fulé, P. Parysow, D. Huffman, J. Bakker. Southwest Fire Initiative Conference, Flagstaff, AZ, April 29, 2003.
- Multi-Century Fire Modeling on Landscape Gradients. P.Z. Fulé. Joint Fire Science Program Investigators' Meeting, Phoenix, AZ, March 11, 2003.
- Vegetation Gradients on the San Francisco Peaks. M. Fisher, A. Cocke, J. Crouse, and P.Z. Fulé. NAU Environmental Research on National Forests and Adjacent Lands Meeting, February 3, 2003.
- Fire-dominated landscapes at Grand Canyon. P.Z. Fulé. NAU Environmental Research on National Forests and Adjacent Lands Meeting, February 3, 2003.
- Fire regimes and natural variability in Grand Canyon forests. P.Z. Fulé. Presentation to Forest Ecosystem Landscape Analysis team, Grand Canyon National Park, January 13, 2003.
- Science and practice. P.Z. Fulé. Restoration and Fuel Management Symposium: Moving Forward Together. Flagstaff, AZ, November 13, 2002.
- Ecological issues in forest restoration. P.Z. Fulé and L.E. DeWald. Forest Management Seminar Series, Environmental Law Society, College of Law, Arizona State University, Tempe, October 30, 2002.
- Fire ecology and forest restoration at Grand Canyon. P.Z. Fulé. Merriam-Powell Seminar Series, Northern Arizona University, Flagstaff, October 25, 2002.
- Diversity in forest restoration. P.Z. Fulé. Invited presentation to the workshop, "Seeking Common Ground in Fire, Wildlife and Forest Restoration." Arizona Chapter of The Wildlife Society, Flagstaff, AZ, October 24, 2002.

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- School presentation on wildfire. P.Z. Fulé. Sechrist School, Flagstaff, AZ, October 8, 2002.
- School presentation on wildfire. P.Z. Fulé. Knoles School, Flagstaff, AZ, October 3, 2002.
- Wildfire's dangerous new role. P.Z. Fulé. Presentation for Flagstaff Festival of Science, Lowell Observatory, Flagstaff, AZ, October 2, 2002.
- Forest restoration field tour, Taos and Los Alamos, NM, September 26-28, 2002.
- Grand Canyon fire ecology. P.Z. Fulé. Training session for Northern Arizona Conservation Corps, Fort Tuthill, AZ, August 28, 2002.
- USFS Gus Pearson Research Plots. P.Z. Fulé. Field presentation to the international meeting of the Society of Range Management, Flagstaff, AZ, August 13, 2002.
- Restoration at Gus Pearson Natural Area. P.Z. Fulé. Field presentation to the international meeting of the Ecological Society of America, Flagstaff, AZ, August 2, 2002.
- Fire ecology and forest restoration at Grand Canyon, with a detour to Mexico. P.Z. Fulé. Tree Ring Talk (seminar series), Laboratory of Tree-Ring Research, University of Arizona, Tucson, May 8, 2002.
- Species and Canopy Cover Map Development Using Landsat 7 Enhanced Thematic Imagery For Grand Canyon National Park. Crouse, J.E. and P.Z. Fulé. Paper presented at the Forest Service RS2002 Conference. April 8-12, 2002. San Diego, CA.
- Water, nutrient, and carbon fluxes following ecological restoration of southwestern ponderosa pine forests. Hart, S.C., J.P. Kaye, W.W. Covington, P.Z. Fulé, and M.M. Moore. Ecological Society of America, 87th annual meeting, August 4-9, 2002, Tucson, AZ.
- When is understory herbaceous biomass and diversity restored? A seven-year case study from southwestern ponderosa pine. M.M. Moore, C.A. Casey, J.D. Springer, P.Z. Fulé, and W.W. Covington. Ecological Society of America, 87th annual meeting, August 4-9, 2002, Tucson, AZ.
- Variability among plant communities in neighboring pine forests has implications for determining reference conditions. C.N. Gildar, P.Z. Fulé, and W.W. Covington. Ecological Society of America, 87th annual meeting, August 4-9, 2002, Tucson, AZ.
- Monitoring understory response to ecological restoration treatments in southwestern forests: the need to collect multiple years of data. M.L. Daniels, J.D. Springer, J.E. Korb, P.Z. Fulé, and W.W. Covington. Ecological Society of America, 87th annual meeting, August 4-9, 2002, Tucson, AZ.
- Importance of dead wood as habitat for mice in a restoration-treated pine forest in northern Arizona. A.R. Roberts, C.L. Chambers, and P.Z. Fulé. Southwest Chapter of The Wildlife Society meeting, February 8, 2002, Safford, AZ.
- Effects of an intense prescribed fire: is it ecological restoration? P. Fulé, T. Heinlein, K. Huisinga, and W. Covington. Sixth Biennial Conference of Research on the Colorado Plateau, November 7, 2001.
- Changes in snag and log characteristics after a wildland use fire. A. Green and P. Fulé. Sixth Biennial Conference of Research on the Colorado Plateau, November 7, 2001.
- Choosing the appropriate sampling technique to detect plant community change—an example from ponderosa pine restoration. J. Korb, J. Springer, W. Covington, and P. Fulé, Sixth Biennial Conference of Research on the Colorado Plateau, November 7, 2001.
- Understory plant response after a high-intensity fire. K. Huisinga, P. Fulé, and J. Springer. Sixth Biennial Conference of Research on the Colorado Plateau, November 7, 2001.
- Ecological restoration in a pinyon/juniper—ponderosa pine ecotone. D. Huffman, P. Fulé, and A. Waltz. Sixth Biennial Conference of Research on the Colorado Plateau, November 6, 2001.
- Fire and Restoration. Montessori School of Flagstaff, Switzer Mesa (grades 1-3), Flagstaff, AZ, October 12, 2001.
- Xtreme Fire. Presentation for Flagstaff Festival of Science, Lowell Observatory, Flagstaff, AZ, October 1, 2001.
- Festival of Science In-School Talk, South Beaver School (4th grade), Flagstaff, AZ, September 25, 2001.
- Reducing Fire Hazards. Presentation to American Association of Botanical Gardens and Arboreta, Interior West Regional Meeting, September 13-15, 2001, Flagstaff, AZ.
- White Mountain Apache Tribal Council field trip leader, Fort Valley, May 4, 2001.
- Gus Pearson restoration site, field trip leader, Forests Festival, April 28, 2001.
- Contemporary Reference Conditions in Southwestern Ponderosa Pine Forests. C. Gildar, P.Z. Fulé, and W.W. Covington. Annual Meeting, Rocky Mountain Chapter, Society for Ecological Restoration, Keystone, CO. April 2001.
- Applied Restoration Research on the Campus. T.A. Heinlein, J.P. Roccaforte, P.Z. Fulé, and W.W. Covington. Annual Meeting, Rocky Mountain Chapter, Society for Ecological Restoration, Keystone, CO. April 2001.

- The Recovery of Forest Roads after Closure. A. Elseroad, P.Z. Fulé, and W.W. Covington. Annual Meeting, Rocky Mountain Chapter, Society for Ecological Restoration, Keystone, CO. April 2001.
- Ecological Restoration and Fire Behavior. National Fire Roundtable, The Nature Conservancy and USDA Forest Service. March 14, 2001, Flagstaff, AZ.
- Forest Conditions at Mt. Trumbull and Mt. Logan Wilderness Areas. Wilderness Task Force, Bureau of Land Management. March 13, 2001, Flagstaff AZ.
- Reducing Fire Behavior. Ponderosa Fire Advisory Council, November 6, 2000, Flagstaff AZ.
- Forest Restoration. Presentation to Arizona Project CENTRL, October 20, 2000, Flagstaff AZ.
- Joint Fire Science Program, Principal Investigators Workshop, October 3-5, 2000, Reno, NV.
- Catastrophic Fire Field Trip (leader). Flagstaff Festival of Science, September 23, 2000.
- The Role of the Soil Seed Bank in Understory Ponderosa Pine Restoration. J.E. Korb, W.W. Covington and P.Z. Fulé. Ecological Society of America annual meeting, Snowbird, UT, August 2000.
- Forest Science Panel, Steps Toward Stewardship conference, Flagstaff, AZ, April 25, 2000.
- Forty years of land use/land cover change in the urban-wildland interface, Flagstaff, Arizona. J.E. Crouse, M.M. Moore, and P.Z. Fulé. April 4-6, 2000, RS-2000 USDA Forest Service Remote Sensing Conference, Albuquerque, NM.
- Restoring Flagstaff's Forests. P.Z. Fulé. Presentation to the Flagstaff Leadership Program, January 20, 2000.
- Seminario Sobre Incendios Forestales. P.Z. Fulé. Presentation to the IV Congreso Mexicano Sobre Recursos Forestales, Durango, Mexico, November 26, 1999.
- Fire in the Ecosystem. P.Z. Fulé. Public presentation at forest meeting, Lakeside, AZ, November 13, 1999.
- Differences in Grand Canyon forest structures over environmental and disturbance gradients. P.Z. Fulé, W.W. Covington, M.M. Moore, T.A. Heinlein, and A.E.M. Waltz. Fifth Biennial Conference on Colorado Plateau Research, October 27, 1999, Flagstaff, AZ.
- Fire, climate, and tree demography on the Colorado Plateau: long-term perspectives from tree rings. T.W. Swetnam, P.Z. Fulé, J.L. Betancourt, and G.J. Gottfried. Fifth Biennial Conference on Colorado Plateau Research, October 27, 1999, Flagstaff, AZ.
- Buried propagule bank of thinned and unthinned ponderosa pine stands in northern Arizona. (Poster) J.E. Korb, W.W. Covington, and P.Z. Fulé. Fifth Biennial Conference on Colorado Plateau Research, October 27, 1999, Flagstaff, AZ.
- Ecología de Incendios en la Sierra Madre Occidental. P.Z. Fulé. Presentation to the Instituto de Ecología, SEMARNAP, CIDIR-IPN, and UAJD, Durango, Mexico, July 6, 1999.
- Evaluation of Ponderosa Pine Forest Reconstruction Techniques Using Historical Data. D.W. Huffman, M.M. Moore, W.W. Covington, P.Z. Fulé, and J.C. Crouse. Ecological Society of America annual meeting, Spokane, WA, August 1999.
- Ponderosa Pine Ecosystem Restoration within the Greater Grand Canyon Ecosystem. W.W. Covington, M.M. Moore, and P.Z. Fulé. Ecological Society of America annual meeting, Spokane, WA, August 1999.
- Southwestern Forests: Restoring our Natural Legacy. Presentation to Laird Norton Foundation. Poco Diablo, Sedona, AZ. June 22, 1999.
- Historical Reconstruction of Structure and Function in a Ponderosa Pine – Bunchgrass Ecosystem. S.C. Hart, W.W. Covington, M.M. Moore, P.Z. Fulé, and J. Kaye.
- Grand Canyon Forest Restoration Research. Seminar Series, Grand Canyon National Park, January 6, 1999.
- Ecological Reference Conditions in Forest Ecosystems Case Study: La Michilía Biosphere Reserve, Durango, Mexico. Presented at the Society for Ecological Restoration annual meeting, Austin, TX, September 30, 1998.
- Fire regimes on an environmental gradient in a dry Sierra Madre forest. Presented to the annual meeting of the Southwestern Association of Biologists, Camp Tontozona, AZ, October 11, 1997.
- Ecological restoration experiments at the Gus Pearson Natural Area. Flagstaff Festival of Science, Flagstaff, AZ, September 28, 1997.
- Fire and Forests in Northern Mexico. School of Forestry seminar series, Flagstaff, AZ, September 24, 1997.
- Restoration of presettlement age structure of an Arizona ponderosa pine forest. Co-author with J.N. Mast. American Association of Geographers, Annual Meeting, Fort Worth, TX, April 3, 1997.
- Socio-Political Factors in Prescribed Fire Management. Panel discussion for RX 340 Fire Effects course, Flagstaff, AZ, March 24, 1997.
- Adaptive Ecosystem Restoration in Ponderosa Pine. Presented at the Genetics/Silviculture session at the SAF National Convention held at Albuquerque, NM, on November 12, 1996.

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- Restoration of Southwestern Ponderosa Pine Ecosystems. Presented to the Arizona Native Plant Society, annual meeting, August 24, 1996, Flagstaff, AZ.
- Ecological Restoration of the Gus Pearson Natural Area. Presented to the Arizona Agricultural Extension Agents, annual meeting, July 18, 1996, Flagstaff, AZ.
- Changing Fire Regimes in Mexican Forests. Presented to the Ecosystem Management short course CEEM II, February 16, 1996, Flagstaff, AZ.
- Geonauts Program (Educational television programming for elementary school students): Filmed segments on fire ecology of *Penstemon clutei* (July 10, 1995) and restoration ecology (March 26, 1996).
- Forest Ecosystem Restoration. Presented to the Western Legislative Council, Annual Meeting, October 10, 1995, Salt Lake City, UT.
- Restoring Western Forest Health. Presented to the Western Legislative Council, June 24, 1995, Lake Tahoe, NV.
- Fulé, P.Z., W.W. Covington, and M.M. Moore. 1994. Patterns of fire occurrence and forest structure in an unharvested pine-oak forest of the Sierra Madre Occidental, Durango, Mexico. Paper presented at Ninth Annual Landscape Ecology Symposium, March 23-26, 1994, Tucson, AZ.
- Fulé, P.Z., and W.F. Stansfield. 1994. Double sampling in fuel inventory. Paper presented at the Southwest Section meeting, Society of American Foresters, April 21, 1994, Flagstaff, AZ.
- Fire Ecology of Southwestern Forests. Presented to the Prescott Area Wildland-Urban Interface Council, November 16, 1994, Prescott, AZ.
- Fire Management Planning with Geographic Information Systems. Presented to the Southwest Region Fuel Managers Meeting, March 11, 1993, Flagstaff, AZ.
- Fulé, P.Z., M.M. Moore, and W.W. Covington. 1993. Scaling sample plots to estimate patch characteristics in southwestern ponderosa pine. Poster presentation at Eighth Annual U.S. Landscape Ecology Symposium, March 24-27, 1993, Oak Ridge, TN.
- Moore, M.M., W.W. Covington, and P.Z. Fulé. 1993. Changes in spatial pattern of presettlement and postsettlement ponderosa pine structure using geostatistical techniques. Paper presented at Eighth Annual U.S. Landscape Ecology Symposium, March 24-27, 1993, Oak Ridge, TN.

Research Funding

- Fulé, P.Z., R. Long, and J.D. Springer. 2005. Ecological restoration at El Rojo Grande Ranch. Edward E. Hills Foundation, \$69,190.
- Huffman, D.W., P.Z. Fulé, and W.W. Covington. 2004-2006. Pinyon-juniper fire regimes: natural range of variability. USDA Forest Service, Rocky Mountain Research Station, \$250,000.
- Fulé, P.Z., C. Crocker-Bedford, and K. Leonard. 2004-2005. Fire use over a southwestern elevational gradient: effects of 2003 fires. Joint Fire Science Program, \$161,059.
- Fulé, P.Z., and M. Oelschlaeger. 2004-2005. FOR 380 hybrid course development project. NAU Center for Research, Assessment, and Development in Electronic Environments, \$8,000.
- Fulé, P.Z., and C. Hull Sieg. 2003-2006. Stand structure and fire behavior, Rodeo-Chediski fire. USDA Forest Service Research Joint Venture Agreement, Rocky Mountain Research Station, \$195,589.
- Covington, W.W., and P.Z. Fulé. 2003-2004. Forest restoration in the Southwest: information for forest managers. USDA Forest Service, Southwestern Region, \$1,000,000.
- Fulé, P.Z., and C. Hull Sieg. 2002-2005. Understorey response following two southwestern wildfires. USDA Forest Service Research Joint Venture Agreement, Rocky Mountain Research Station, \$90,156.
- Moore, M.M., P.Z. Fulé, P.F. Parysow, and D.W. Huffman. 2002-2006. Long-term and anticipated changes in southwestern conifer forests: analysis and modeling of historical USDA permanent plot data. USDA National Research Initiative competitive grant, \$310,000.
- Fulé, P.Z. 2002-2004. Resolving “uncertainty” in fire history methods at Centennial Forest. Mission Research Board, School of Forestry, Northern Arizona University, \$35,126.
- Fulé, P.Z., T.A. Heinlein, H.B. Smith, W.W. Covington, and M.M. Moore. 2001-2003. Fire and Fuels Treatments: Grand Canyon National Park. Bureau of Land Management, Southwest Fire Initiative. \$224,505.
- Fulé, P.Z., M.M. Moore, J. Crouse, T.A. Heinlein, and W.W. Covington. 2001-2003. Landscape Fuels and Fire: San Francisco Peaks. Bureau of Land Management, Southwest Fire Initiative. \$99,780.
- Moore, M.M., W.W. Covington, P.Z. Fulé, and P.F. Parysow. 2001-2003. Quantifying Forest Reference Conditions for Ecological Restoration: The Woolsey Plots. \$191,578.

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- Fulé, P.Z., and C.C. Avery. 2001. Periodic Remeasurement of the Gus Pearson Natural Area. USDA Forest Service, Rocky Mountain Research Station. \$18,453.
- Fulé, P.Z., M.M. Moore, W.W. Covington, J.E. Crouse, and T.A. Heinlein. 1999-2001. Fire in the urban/wildland interface: a landscape modeling approach. USDA Forest Service, Rocky Mountain Research Station. \$191,172.
- Fulé, P.Z., M.M. Moore, W.W. Covington, T.A. Heinlein, and D. Spotskey. 1999-2001. Multi-century fire modeling over landscape gradients. Joint Fire Science Program, \$182,186.
- Covington, W.W., Korb, J.E., and P.Z. Fulé. 1999-2002. Understory response to different prescribed fire intensities and forest thinning restoration treatment. USDA Forest Service, Rocky Mountain Research Station. \$140,982.
- Covington, W.W., H.B. Smith, P.Z. Fulé, M.M. Moore, T.A. Heinlein. Measurement of forest demonstration areas for the Flagstaff Urban/Wildland Interface. USDA Forest Service, Rocky Mountain Research Station. \$78,830, 5/99-5/01
- Daugherty, P.J., and P.Z. Fulé. 1999-2000. Fire and fuel management options for Flagstaff, Arizona's wildland/urban interface: smoke levels from prescribed fire and intergenerational equity. USDA Forest Service, Rocky Mountain Research Station. \$27,518.
- Covington, W.W., H.B. Smith, P.Z. Fulé, and M.M. Moore. 1998. Southwestern forests ecological restoration project. USDA Forest Service, \$174,993, 8/98-6/01.
- Covington, W.W., H.B. Smith, P.Z. Fulé, and M.M. Moore. 1998. Urban wildland interface project. USDA Forest Service, \$149,934, 8/98-6/01.
- Moore, M.M., W.W. Covington, W.H. Moir, and P.Z. Fulé. 1997. Southwestern ponderosa pine forest structure and fire regime disruption date: remeasurement of historical permanent forest plots. USDA Forest Service, \$240,000, 4/97-00.
- Covington, W.W., M.M. Moore, P.Z. Fulé, and H.B. Smith. 1997. Grand Canyon forest ecosystem restoration. USDI Interior Fire Coordinating Committee, \$925,000, 4/97-00.
- Covington, W.W., M.M. Moore, and P.Z. Fulé. 1995. Restoration of forest health in southwestern forests. USDI Bureau of Land Management and USDA Forest Service, \$1,497,000, 10/95-9/00.
- Fulé, P.Z., and W.W. Covington. 1994. Effects of fire disturbance regimes on pine and pine-oak forest structures of La Michilía Biosphere Reserve, Durango, Mexico. Dissertation enhancement award, National Science Foundation, Division of International Programs, U.S.--Mexico Cooperative Science Program, \$25,559, 1/95-6/97.
- Covington, W.W., and P.Z. Fulé. 1993. Disturbance regimes and global change in unmanaged forests of the Mexican Sierra Madre. USDA Forest Service Pacific Northwest Experiment Station, \$20,000, 1/94-12/95.

Pending

- Fulé, P.Z. Forest fires and climate patterns in ancient Spanish pine forests: ecological and social implications. Fulbright Scholar Program, Washington, D.C. \$7,500.
- Kaye, J.P., P.Z. Fulé, S.C. Hart, S. Haase, K. Prewitt, and M.W. Kaye. Fire management and carbon storage in southwestern ponderosa pine forests. USDA NRI Managed Ecosystems Program, \$500,000.

Teaching

University Courses:

Restoration Ecology Principles

2003, 2002 Spring semester FOR 380 and FOR 380H
2001, 2000, 1999 & 1997 Spring semester, FOR 380 and FOR 580
1997 Fall semester, FOR 398/506

Restoration Ecology Applications

Peter Z. Fulé

2004, 2003, 2002, 2001 Fall semester, FOR 382, 382H, and 582
2000 Fall semester, FOR 382 and 582
1999 Fall semester, FOR 298/506
1998 Spring semester, FOR 299/399/506
1998 Fall semester, FOR 298/506

Fire Ecology and Management

2004, 2003, 2001 Spring semester, FOR 551 and 551L
1999 Spring semester, FOR 499/506

Fire Ecology Seminar

2004 Fall semester, FOR 506

Ecosystem Science and Management

2000 Fall semester, FOR 500

Forest Science (Semester A)

2003, 2002, 2001, 2000 Fall semester, FOR 313-316

Dendroecology

2002 Fall semester, FOR 506, 2000 Fall semester, GGR 599

Undergraduate Research (FOR 485)

2004 Fall: Ken Baumgartner, Erin Thurston, Chris Seck, Kristina Rask, Sanjeev Pandey
2003 Fall: Scott Sink
2002 Fall: Eve Gilbert, Stephanie Powers
2002 Spring: Jason Jerman, Lisa Dunlop, Aaron Green
2001 Fall: Aaron Green, Nikki Cooley, Lisa Dunlop
2000 Fall: Daniel Murray, Holly Petrillo
2000 Spring: Walker Chancellor, Brian Gideon, Peter Gould, Justin Waskiewicz

Undergraduate Internship/Practicum (FOR 408)

2004 Fall: Luke Brandy, John Manthei, Cam Alltree
2004 Spring: Amber Fields
2003 Fall: Katie Allan, Jane Dobbie, Emery Edwards, Andrew Leiendecker, Adam Mendonca, Juliana Suby, Lang Suby
2003 Spring: Brett Crary, Aaron Wilkerson, Brent Tyc.

Independent Study (FOR 697)

2002 Fall: Don Bertollette
2002 Spring: Don Bertollette
2002 Spring (Fire Ecology): Julie Blake, Kristin Coevert, Lilly Goodman, Andy Miller

University Lectures:

Fire Management, Semester D, February 8 and March 2, 2005.

Peter Z. Fulé

Ecological Restoration, February 5, 2005, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University.

Fire & Forest Health, FOR 454/554, February 2, 2005.

Fire Ecology, October 5, 2004, Continuing Education Applied Workshop: Ecological Restoration Principles, for Apache-Sitgreaves National Forests, Northern Arizona University.

Fire Ecology, October 28, 2003, Workshop for Southwestern Region National Forest Supervisors, Northern Arizona University.

Fire Ecology & Range of Natural Variability, October 21, 2003, Continuing Education Applied Workshop: Ecological Restoration Principles, Northern Arizona University.

Ponderosa pine fire ecology. National Park Service, Integrated Fire & Resource Management Planning Course, April 28, 2003, Grand Canyon, AZ.

Fire Ecology & Range of Natural Variability, April 21-23, 2003, Continuing Education Applied Workshop: Ecological Restoration Principles, Northern Arizona University.

Ecological Restoration, February 1, 2003, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University.

Fire and sustainability, October 21, 2002, FOR 298, Northern Arizona University.

Ecological Restoration, February 8, 2002, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University.

(1) Range of Natural Variability, (2) Restoration Silviculture, and (3) Field Tour, October 17-19, 2001, Continuing Education in Wildlife Habitat and Plant Management, professional shortcourse, Northern Arizona University.

Restoration & Wildlife, October 12, 2001, BIO 478 Wildlife Management class.

Ecological Restoration, February 9, 2001, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University.

Fire Ecology & Management, April 11, 2001, October 3, 2000, FOR 101 Introduction to Forestry

Landscape Fire Modeling, March 14, 2000, ENV 544 Landscape Ecology

Ecological Restoration, February 11, 2000, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University

Ecological Restoration, November 2, 1999, FOR 398 Indigenous Conservation Knowledge

Restoration Treatments, October 26, 1999, FOR 421 Forest Science

Ecological Restoration and Dendrochronology, 2003, 2002, 2001, 1999, FOR 250 Arizona Forests and Wildlife

Ecological Restoration, February 12, 1999, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University

Ecological Restoration, February 13, 1998, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University

Selecting appropriate research methods: strength of inference, October 2004, September 2003, February 2003, 2002, 2001, 2000, 1999, January 1998, 1997, FOR 690 Research Methods

Ecological Restoration, February 12, 1998, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University

Ecological Restoration, February 14, 1997, Continuing Education in Ecosystem Management, professional shortcourse, Northern Arizona University

Ecological Restoration, October 15-17, 1996, FOR 695 Conservation Biology

Fire and Ecosystem Management, October 14-16, 1996, FOR 500

Fire Ecology and Management, April 24-26, 1995, FOR 102 Introduction to Forestry

Outside Courses:

Fire effects on flora, February 15, 2000, RX340 Introduction to Fire Effects (Interagency training course), Whiteriver AZ.

Fire effects on flora, March 30, 1999, RX340 Introduction to Fire Effects (Interagency training course), Prescott Fire Center, Prescott AZ.

Professional Development Workshops:

Peter Z. Fulé

Summer reading group leader, NAU freshmen, August 24, 2004.
Classroom Civility, November 14, 2001, Northern Arizona University, Flagstaff
The Art and Craft of Teaching, January 10, 1996, Northern Arizona University, Flagstaff

Professional Service

Chair, Fire science faculty search committee, School of Forestry 2004-2005.
Strategic planning committee, School of Forestry 2004-2005.
Organizing committee, Southwestern/Intermountain Section Meeting, Society of American Foresters, Spring 2005.
Chair, Society of American Foresters, Northern Arizona Chapter, 2004.
Symposium organizer, Historical Ecology Applied to Forest Conservation and Restoration, 7th Biennial Conference "Integrating science and management on the Colorado Plateau," Nov. 4-6, 2003.
Field trip presentation on fire ecology, interdisciplinary goshawk management team, North Kaibab Ranger District, October 24, 2003.
Southwestern forest tour leader, Vassar College, Biology class, October 22-23, 2003.
Field trip leader, Fire & Stone Guided Hike, Flagstaff Festival of Science, October 3, 2003.
Peer panel reviewer for Forest Service research scientist, September 16, 2003.
Technical Representative, Coconino County (AZ) Parks & Open Space - Science Advisory Committee, 2003-2004.
Mission Research Board, School of Forestry, 2003-2004.
Summer reading group leader, NAU freshmen, August 22, 2003.
Technical Assistance Visit participant for Rocky Mountain Research Station (RWU-RMRS-4152), USDA Forest Service, April 15-16, 2003.
Faculty advisor, Student Association for Fire Ecology, 2003-2004.
Chair-elect, Society of American Foresters, Northern Arizona Chapter, 2003.
Coordinating editor, *Restoration Ecology*, Blackwell Science Publishing. 2003-2006.
Ecological monitoring participant, Collaborative Forest Restoration Program, USDA Forest Service, Region 3, New Mexico (workshop 11/13-15, 2002).
Summer reading group leader, NAU freshmen, August 23, 2002.
Treasurer, Arizona Natural History Association, 2002-2003.
Judge, Braun/Buell awards, Ecological Society of America annual meeting, August 4-9, 2002.
Leader, Forest Restoration Field Trip, combined meetings of the Ecological Society of America/Society for Ecological Restoration, August 1-4, 2002.
Symposium coordinator, Forest Restoration Symposium, combined meetings of the Ecological Society of America/Society for Ecological Restoration, August 4-9, 2002, Tucson, AZ.
Habitat for Humanity workday, Society of American Foresters, October 20, 2001.
Chair, search committee for research specialist, 2001.
University Commission on the Status of Women, 2001-2003.
Graduate Studies Committee, School of Forestry, 2001-2004.
Instructor, International Dendroecology Field Week, August 12-17, 2001, Saltillo, Coahuila, Mexico.
Research Permit Committee, Merriam Powell Center, 2001-2002.
Co-chair, review panel for \$1.4 million funding program, ERI, January-May, 2001.
Latin America/CESM committee, 2001-2002
Mentorship 101 (Tuba City High School), March 1, 2001, November 8, 2000.
Mission Research Board, School of Forestry, 2000-2001.
Centennial Forest (NAU) technical advisory committee, 2000-2003.
Board of Directors, Arizona Natural History Association, 2000-2002.
Coordinator, Forest Science Panel, Steps Toward Stewardship conference, April 2000
Chair, College of Ecosystem Science and Management enrollment/distance learning committee, 2000.
Member, Faculty Council on Planning & Budget (2000-01).
Consultation: advice on forest management, Kachina Village Improvement District (Coconino County) and the Arboretum at Flagstaff, 2000.
Search committee for administrative assistant, 2000.
Search committee for program representative, 2000.

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Search committee for marketing specialist, 2000.
Search committee for research technician, 1999.
Chair, search committee for School of Forestry technical support position, 1999.
Search committee for administrative assistant, 1999.
Science Planning and Integration Team, Grand Canyon Forests Partnership, 1999-2000.
Flagstaff Festival of Science, Ecological Restoration field trip, September 27, 1997.
Organizing committee, joint meeting of the Society of American Foresters, Southwestern Section, and the Asociación Mexicana de Profesionales Forestales, September 17-20, 1997.

Graduate Students Advised

Current (alphabetical order):

Scout Abella, Ph.D.
Jean Block, M.S. (Biology)
Joseph Crouse, M.S. (co-chair w/ Margaret Moore)
Chad Hoffman, M.S.
Maurice Huynh, M.F. (chair)
Amanda Kuenzi, M.S. (chair)
Aaron Green, M.S. (Colorado State University)
Duncan Leao, M.S.
Andrew Sánchez-Meador, Ph.D.
Zak Meier, M.S. (co-chair w/ David Ostergren, Environmental Science and Policy)
David Passavoy, M.S. (co-chair)
Terri Pope, M.S.
John Paul Roccaforte (chair)
Shawn Stevens, M.S.
Mike Stoddard, M.S.
Barb Strom, M.S. (chair)
Megan Van Horne, M.S. (chair)

Graduated (chronological order):

Jeanmarie Onkonburi, Ph.D. (graduated 1999)
Sean Kyle, M.S. (2000)
G. Alan Kaufmann, M.S. (2000)
Aaron Wells, M.S. (2001)
Heather Shanes, M.S. (2001)
Adrien Elseroad, M.S. (co-chair w/ Wally Covington, 2001). *Forest roads in northern Arizona: recovery after closure and revegetation techniques. **Publication:** Elseroad, A., P.Z. Fulé, and W.W. Covington. 2003. Forest road revegetation: effects of seeding and soil amendments. Ecological Restoration 21(3):194-199.*
Kristin Kolanoski, M.S. (2001)
Julie E. Korb, Ph.D. (2001)
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Recognition

Recognized as influential faculty member by Aaron Green, NAU Golden Axe Award recipient, 2002.
DeGolier Prize, Vassar College, 1986.