

MONICA L. POKORNY

1700 Wildflower Way, Bozeman, MT 59715

Phone: 406-570-8010

e-mail: monicapokorny@gmail.com

EDUCATION

M.S. 2002, Land Resources and Environmental Sciences, Montana State University.

B.A. 1995, Biology, emphasis in Botanical Sciences, minor in Wildlife Biology. University of Montana

EXPERIENCE

Senior Ecologist, KC Harvey Environmental, LLC., Bozeman, MT. (June 2012 - present).

- Collaborative project with the Western Transportation Institute and the Idaho Transportation Department to evaluate the success of roadside revegetation projects and provide recommendations for improving plant establishment, reducing erosion, and managing invasive species.
- Worked with a team of scientists to plan, design and implement a 1,300 acre stream, riparian, and wetland mitigation bank on the Sweetwater River in south-central Wyoming. Included completion of a Prospectus and Mitigation Bank Instrument under the U.S. Army Corps of Engineers 2008 Wetland Mitigation Rule, as well as site assessments and design build plans.
- Involved in the planning, preliminary studies, and administrative approvals of a proposed 800,000 resource conservation bank in south-central Wyoming for the greater sage-grouse and raptor species.
- Conduct SWPPP monitoring of several sites to ensure the constructions activities are preventing pollution of natural resources. Installation of best management practices.
- Monitored plant species richness, and plant tissue and soil boron concentrations on ash disposal pond caps to assess the reclamation success of the caps. Monitored soil water movement over time and used a water balance model to quantify water movement into and through the ash pond cap system.

Wildlife Habitat Restoration Ecologist, Confederated Salish and Kootenai Tribes, Polson, MT. (Oct 2008 – June 2012).

- Conduct all aspects of wetland and stream ecological restoration projects including planning and priority setting, NEPA compliance and permitting, design, and project management, implementation, monitoring, and reporting.
- Plan and implement ongoing land management needs for improving wildlife habitat including prescribed burning, seeding, planting, and fencing.
- Provide guidance and leadership for invasive plant management including teaching plant identification, mechanical and chemical treatment non-native species, biological control collection and monitoring techniques, and invasive species inventory methods.
- Assess land management monitoring results and adjust management as needed.
- Design and implement projects to increase the abundance of culturally important plants.
- Conducted inventories for MT threatened plant species with the MT Natural Heritage Program.
- Monitor cottonwood stands and identify cottonwood restoration opportunities.
- Provide guidance and leadership to crew leader and crews, and assures safe work conditions and project efficiency.
- Participated in a professional exchange to China through the Maureen and Mike Mansfield Center at the University of Montana and the U.S. Department of State.

Plant Ecologist / Natural Resource Consultant, Pokorny Plant Ecology LLC, Gallatin Gateway, MT; Reclamation Research Group LLC, Bozeman, MT; and Garcia and Associates, Bozeman, MT. (June 2002 – Dec 2010, part time).

- Monitored rangeland health on reclaimed lands and conservation easements.
- Conducted inventories for invasive plants and sensitive plant species, and developed land management plans.
- Performed botanical surveys and reporting for wetland delineations.
- Developed and conducted biological control monitoring strategies for non-native plants.
- Managed project investigating the development of native grass sod for erosion and weed control along California highways.
- Designed and implemented revegetation projects.
- Researched and wrote technical conservation assessments on Rocky Mountain Region sensitive plant species.
- Conducted botanical surveys and biological resources reports that meet NEPA compliance requirements.
- Participated in the Clark Fork River Riparian Evaluation System, a mine reclamation design tool.
- Identified plant species and monitored vegetation diversity and biomass on power plant ash disposal ponds as part of reclamation efforts.
- Delineated contaminated soils on Superfund sites, wrote revegetation plans, and sampled subsurface soils at Anaconda Smelter Site.

Research Associate / Restoration Program Coordinator, Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT. (Sept 2002 –Oct 2007)

- Coordinated with over 20 different land owners, agencies and non-profit organizations to design, implement, sample, and analyze multiple restoration research projects in the field of invasive plant ecology and management.
- Compiled and disseminated restoration research results to land managers, educators, and scientists through publications, presentations, and online.
- Managed the Montana Dyer's Woad Eradication Cooperative Project and reported annual results to state, federal, university and local cooperators.
- Taught ecologically-based invasive plant management through workshops, field tours, and on-the-ground projects.
- Mentored staff in professional development by providing learning opportunities, incorporating ecology discussions in everyday work, and fostering a learning environment at work.
- Developed and managed the Center for Invasive Plant Management's Restoration Program including staff and budgets. Assessed program's effectiveness using performance indicators.
- Designed an on-line restoration resource database as an educational tool.
- Provided expertise and guidance in invasive plant management for land managers in the West.
- Coordinated, wrote and edited a manual on invasive plant inventory methods with 20 authors.
- Identified funding opportunities and wrote grant proposals.

Field Biologist, Utah State University, Logan, Utah. (2002)

- Identified and mapped the presence of rare plants and invasive plant species in Dinosaur National Monument and Caribou National Forest using GPS/GIS and identification of geological substrates and plant species.
- Developed noxious and invasive plant survey reports, including invasive plant management maps in ArcView, to prioritize management efforts.
- Worked with a multi-disciplinary team of botanists, data processors, archeologists, geologists, and private land owners.

Graduate Research Assistant, Montana State University, Bozeman, MT. (Aug 1999 – May 2002).

- Broadened the scientific knowledge of invasive plant resistant plant communities and the ecological role of native and nonnative plants in grassland communities.
- Designed, coordinated, and implemented research focused on determining the ability of functional group diversity at resisting invasion by a nonindigenous invader; quantify the ecological role of indigenous and nonindigenous functional groups in a grassland ecosystem; and quantify the vegetative species richness and densities in a grassland plant community.
- Developed the research design and sampling methods, supervised and trained research assistants, wrote grant proposals, and received grant awards.
- Collected vegetative richness, density, biomass and nutrient data, and soil nutrient data.
- Disseminated results in professional publications and presentations, educational presentations, field tours and newspaper.
- Facilitated research and collaboration with a nonprofit organization and a local ranch.

Research Biologist, Craighead Wildlife-Wildlands Institute, Missoula, MT. (May 1998 – Aug 1999 and May 1996 – Sept 1996).

- Assessed the quantity, quality, and distribution of grizzly bear habitat in the Salmon-Selway Ecosystem using satellite imagery. Designed field methods to meet the ecological, statistical, and spatial needs of data collection for the ground-truthing of satellite imagery / grizzly bear habitat.
- Worked with a multi-disciplinary team to integrate field observations on landscapes and ecological relationships with satellite images and the results of statistical analysis to produce the overstory and understory vegetative maps of the study area.
- Trained and supervised field crews in data collection methods and plant identification. Reviewed data for accuracy and consistency.
- Coordinated and conducted botanical surveys in remote wilderness area to map the abundance and spatial distribution of grizzly bear food resources using satellite map layers.
- Evaluated the health of whitebark pine stands and the spread of blister rust.
- Observed and recorded bighorn sheep mating behavior and dominance hierarchy as part of a study investigating the population viability of isolated bighorn sheep populations.

Forestry Technician, Flathead National Forest, Kalispell, MT. (April 1997 – May 1998).

- Established and sampled permanent inventory and monitoring plots to investigate forest health and change throughout Montana and Arizona.
- Supervised and trained crews for the USFS Inventory Analysis. Taught data collection methods, the use of field equipment, and plant identification. Coordinated weekly field schedule and reviewed work for accuracy.

- Recorded data on forest and range health, tree growth and mortality, habitat type, stand history, understory composition, and degree and type environmental damage to the forest stands.
- Collected information on the location and habitat characteristics of sensitive plant species.
- Reviewed and compiled public comments on proposed USFS projects.

Additional Experience (1995-1996).

- Used radio-telemetry, transects, and on-the-ground tracking to locate and map the daily distribution of wolves, moose and caribou.
- Wrote management summary reports for each of The Nature Conservancy's of Minnesota preserves to establish a reference to past management and a guide to future actions.
- Developed land cover classification maps and forest fire fuels maps by ground-truthing satellite imagery and using fuel models.

PUBLICATIONS

- Taylor , R.V., M.L. Pokorny, J. Mangold, and N. Rudd. 2013. Can a combination of grazing, herbicide and seeding facilitate succession in old fields? *Ecological Restoration* 30(2): 141-143.
- Jacobs, J., M. Pokorny, J. Mangold, and M. Graves. 2011. Yellowflag Iris: identification, biology, and integrated management. Montana State University Extension Services Publication, Bozeman, MT.
- Pokorny, M.L., J.M. Mangold, J. Hafer, and M.K. Denny. 2010. Managing spotted knapweed (*Centaurea stoebe*) infested rangeland following wildfire. *Invasive Plant Science and Management* 3:182-189.
- Pokorny, M.L., J.M. Mangold, and R. Kittle. 2010. Black henbane: identification, biology, and integrated management. Montana State University Extension Services Publication, Bozeman, MT. 4 pages.
- Dollhopf, D., M. Pokorny, T. Dougher, L. Scott, L. Rew, J. Stark, M. Peterson, L. Fay, and X. Shi. 2009. Using Reinforced Native Grass Sod for Biostrips, Bioswales, and Sediment Control. Prepared for the California Department of Transportation, Sacramento, CA.
- Pokorny, M.L. and J.M. Mangold. 2009. Converting pasture land to native plant dominated grassland: a case study. *Ecological Restoration* 27(3): 250-253.
- Pokorny, M. L. and J.M. Mangold. 2008. Montana's Noxious Weeds. Montana State University Extension Services Publication, Bozeman, MT. 79 pages.
- Davies, K.W., M.L. Pokorny, R.L. Sheley, and J.J. James. 2007. Implications of plant functional group diversity on soil nutrient availability. *Rangeland Ecology and Management* 60(3): 304-310.
- Fultz, J., M. Pokorny, and R. Petroff. 2007. Forest Pest Control: A Study Manual for Commercial and Governmental Pesticide Applicators. Montana Department of Agriculture and Montana State University Cooperative Extension Service, Helena, MT. 73 pages.
- Jacobs, J.S. and M.L. Pokorny. 2007. Ecology and Management of Dyer's Woad (*Isatis tinctoria* L.). United States Department of Agriculture, Natural Resources Conservation Service, Invasive Species Technical Note No. MT- 10. Bozeman, MT. 9 pages.
- Jacobs, J.S., S. Winslow, and M.L. Pokorny. 2007. The effect of five pre-emergent herbicides on the emergence and establishment of four native wildflowers. *Native Plants Journal* 8(4): 222-232.
- Rinella, M.J., M.L. Pokorny, and R. Rekaya. 2007. Grassland invader responses to realistic changes in native species richness. *Ecological Applications* 17(6): 1824-1831.
- Pokorny, M.L. and J.M. Krueger-Mangold. 2007. Evaluating Montana's dyer's woad (*Isatis tinctoria*) cooperative eradication project. *Weed Technology* 21(1) 262-269.

- Pokorny, M.L., S.D. Wood and D. Cooksey. 2007. Integrated Weed Management Plan, United States Bureau of Reclamation, Canyon Ferry Reservoir. Unpublished report prepared for U.S. Bureau of Reclamation, Helena, MT.
- Taylor, R.V., J. Dingeldein, M.L. Pokorny, J. Mangold and N. Rudd. 2007. Seedling Establishment in an Old Field Following Seeding, Herbicide, and Grazing Treatments (aka The Duckett Restoration Experiment). The Nature Conservancy, Enterprise, OR.
- Wood, S., R. Lloyd, M. Pokorny, and D. Cooksey. 2007. Noxious Weed Inventory at U.S. Bureau of Reclamation, Canyon Ferry Reservoir. Unpublished report prepared for U.S. Bureau of Reclamation, Helena, MT.
- Marriot, H. and M.L. Pokorny. 2006. *Aquilegia laramiensis* A. Nelson (Laramie columbine): a Technical Conservation Assessment. USDA, Forest Service, Rocky Mountain Region Species Conservation Project. Peer Review administered by the Center for Plant Conservation. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/index.shtml>
- Pokorny, M.L. 2006, 2005, 2004. Montana's Dyer's Woad Cooperative Project, final reports. Unpublished report prepared for the Montana Dyer's Woad Task Force, Butte, MT.
- Pokorny, M.L., S.A. Dewey, and S.R. Radosevich. 2006. Getting started: setting objectives and planning the project. Pages 8-16 *In* Rew, L.J. and M.L. Pokorny (eds) Inventory and Survey Methods for Non-indigenous Plant Species. Montana State University Extension Publications, Bozeman, MT.
- Rew, L.J. and M.L. Pokorny. 2006. Inventory and Survey Methods for Non-indigenous Plant Species. Montana State University Extension Publications, Bozeman, MT. 75 pages.
- Pokorny, M.L. 2005. *Ipomopsis spicata* (Nutt.) V. Grant var. *robruthiorum* Wilken & Hartman, (Spiked Ipomopsis): a Technical Conservation Assessment. USDA, Forest Service, Rocky Mountain Region Species Conservation Project. Peer Review administered by the Center for Plant Conservation. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/index.shtml>
- Pokorny, M. L., R. L. Sheley, C. A. Zabinski, R. E. Engel, T. J. Svejcar, and J. J. Borkowski. 2005. Plant functional groups as a mechanism for invasion resistance. *Restoration Ecology*. 13(3):448-459.
- Reever-Morghen, K.J., R.L. Sheley, M.K. Denny, and M.L. Pokorny. 2005. Seed islands may promote establishment and expansion of native species in reclaimed mine sites (Montana). *Ecological Restoration* 23(3):214-215.
- Jacobs, J.S., and M.L. Pokorny. 2004. Restoring Perennial Grasses in a Spotted Knapweed Infested Rangeland: an Eight-Year Look. *Proceedings of 16th Int'l Conference of Society for Ecological Restoration*, Victoria, BC, Canada.
- Pokorny, M. L., R. L. Sheley, T. J. Svejcar, and R. E. Engel. 2004. Species diversity in a grassland plant community: evidence for forbs as a critical management consideration. *Western North American Naturalist* 64(2):219-230.
- Pokorny, M. L. and R. L. Sheley. 2003. Montana's Noxious Weeds, second edition. Montana State University Extension Services Publication, Bozeman, MT 66 pages.
- Dewey, S.A., K. Anderson, M. Ballard, S. Wood, and M. Pokorny. 2002. Field Survey of Invasive Non-Native Weeds and Designated Rare Plants in the Green River District of Dinosaur National Monument. Unpublished report prepared for the National Park Service, Dinosaur National Monument, Vernal, Utah.
- Dewey, S.A., M. Ballard, K. Anderson, M. Pokorny, and S. Wood. 2002 Noxious and Invasive Weed Survey, Cherry Creek, Hawkins, Westfork and Dry Canyon Fires, Bannock and Franklin Counties, Idaho. Unpublished report prepared for the USDA, Forest Service, Caribou National Forest, Pocatello, ID.
- Hogg, J. T., N. S. Weaver, J. J. Craighead, B. M. Steele, M. L. Pokorny, R. L. Redmond, and F. B. Fisher. 2001. Vegetative patterns in the Salmon-Selwey ecosystem: an improved land cover

classification using Landsat TM imagery and wilderness botanical survey. Craighead Wildlife-Wildlands Institute, Missoula, MT. 175 pp.

Hogg, J. T., N. S. Weaver, J. J. Craighead, M. L. Pokorny, B. M. Steele, R. L. Redmond, and F. B. Fisher. 2000. Abundance and Spatial Distribution of Grizzly Food-Plant Groups in the Salmon-Selway Ecosystem. *In*: Bitterroot Grizzly Bear EIS Team (eds), Grizzly bear recovery in the Bitterroot ecosystem: final environmental impact statement, United States Fish and Wildlife Service, Denver, CO. pp. 247-270.

PROFESSIONAL PRESENTATIONS (2004- present, additional available on request)

Pokorny, M., D. Neuman, K. Edwards, and D. Smith. 2013. Vegetation Inventory and Survey Methods: A Reclamation Tool. American Society of Mining and Reclamation. Laramie, WY.

Ansotegui, R. and M. Pokorny. 2013. Integrated Weed Management and Reclamation in the Wamsutter Natural Gas Field Montana Weed Control Association Conference, Great Falls, MT.

Pokorny, M. 2012. Managing Invasive Plants while Restoring Native Prairie. Native Prairie Restoration Workshop, Saskatchewan Prairie Action Plan, Saskatoon, SK.

Pokorny, M. and V. Dupuis. 2010. Managing reed canarygrass while restoring wetlands in western Montana. Northern Rockies Invasive Plant Council's 2nd Invasive Species in Natural Areas Conference. Coeur d'Alene, ID.

Pokorny, M.L., J.M. Mangold, J. Hafer, and M.K. Denny. 2009. Restoring spotted knapweed (*Centaurea stoebe*) infested rangeland following wildfire. Western Society of Weed Science 62nd Annual Meeting, Albuquerque, NM.

Taylor, R.V., M.L Pokorny, J. Mangold, P. Shephard, N. Rudd, J. Dingeldein, and H. Schmalz. 2009. Combination of cattle grazing and herbicide enhances effectiveness of native seeding in old fields in the Pacific northwest bunchgrass prairies. Society for Ecological Restoration, Northwest Chapter, Annual Meeting, WA.

Pokorny, M.L. 2008. The role of native plant species in revegetation and ecological restoration. Fifth Montana Plant Conservation Conference, Bozeman, MT.

Xianming, S., D. Dollhopf, L. Rew, and M. Pokorny. 2008. Reinforced native grass sod for biostrips, bioswales, and sediment control. International Erosion Control Association, Orlando, FL.

Pokorny, M.L. 2007. Montana's dyer's woad cooperative project. Montana Weed Control Association Annual Conference. Helena, MT.

Rinella, M.J., M.L. Pokorny, and R. Rekaya. 2007. Declining grassland biodiversity: Invasive forb (*Centaurea maculosa*) response to realistic changes in ecosystem function. Society for Range Management, 60th Annual Meeting, Reno, NV.

Hektner, M.M., M.L. Pokorny, R.A. Renkin and A.L. Burton. 2006. Restoring ungulate winter range in and near Yellowstone National Park. Billings Land Reclamation Symposium, Billings, MT.

Jacobs, J.S., S.E. Sing, M.L. Pokorny, and R.L. Sheley. 2006. The interaction of competitive grass and biological control to manage spotted knapweed. Society for Range Management, 59th Annual Meeting, Vancouver, BC.

Pokorny, M.L., J. Hafer, M.K. Denny, and J.S. Jacobs. 2006. Managing invasive plant dominated lands after wildfire. Society for Range Management, 59th Annual Meeting, Vancouver, BC.

Pokorny, M.L. and J.S. Jacobs. 2006. What is restoration and *how* can it be used to improve invasive plant management? Montana Weed Control Association Annual Conference. Great Falls, MT.

Hektner, M.M., A.L. Burton, M.L. Pokorny, R.A. Renkin, and P.J. White. 2005. Restoring Native Vegetation on Ungulate Winter Range in and near Yellowstone National Park. Eighth Biennial Conference on the Greater Yellowstone Ecosystem, Mammoth, WY.

- Hektner, M.M., A.L. Burton, M.L. Pokorny, R.A. Renkin, and P.J. White. 2005. Restoring native vegetation on ungulate winter range in and near Yellowstone National Park. Society for Ecological Restoration 17th International Conference. Zaragoza, Spain.
- Pokorny, M.L. 2005. Restoring native plant communities. Montana Weed Control Association Annual Conference. Helena, MT.
- Pokorny, M.L., J.S. Jacobs, P. Tryon, G. Bennett, and A. Soukkala. 2005. Using an ecological framework to manage invasive species. Society for Range Management 58th Annual Meeting. Fort Worth, TX.
- Jacobs, J.S., and M.L. Pokorny. 2004. A burning reality: Can *Linaria dalmatica* be controlled after wildfire? Society for Range Management 57th Annual Meeting. Salt Lake City, UT.
- Jacobs, J.S., and M.L. Pokorny. 2004. Restoring perennial grasses in a spotted knapweed infestation by manipulating site availability, species availability, and species performance: an eight year look. Society for Ecological Restoration 16th International Conference. Victoria, BC.
- Pokorny, M.L. 2004. Can invasion resistant plant communities be established during weed management? Idaho Weed Control Association Annual Conference. Nampa, ID.
- Pokorny, M.L. 2004. Revegetation with a vision; Case studies for research, management, and education. Western Society of Weed Science 57th Annual meeting. Colorado Springs, CO.
- Pokorny, M.L. and J.L. Anderson. 2004. Revegetation of weed infested rangelands. Montana Weed Control Association Annual Conference. Billings, MT.
- Pokorny, M.L., and J.S. Jacobs. 2004. Going over the edge: Case studies using ecology to restore invaded lands. Society for Ecological Restoration 16th International Conference. Victoria, BC.

EDUCATION PRESENTATIONS (2004- present, additional available on request)

- Pokorny, M.L. 2010. Wetland Invasive Plant Panel – Reed Canarygrass. Montana Wetland Council, Helena, MT.
- Pokorny, M.L. 2009. Pesticides and Environmental Safety. Lake County Weed Managers Recertification Training. Pablo, MT.
- Pokorny, M.L. 2008. Montana's Restoration Program. University of Montana's Restoration Ecology class. Missoula, MT.
- Pokorny, M.L. 2007 and 2008. Montana Rangeland Noxious Weeds. Crop Pest Management School, Montana State University, Bozeman, MT.
- Jacobs, J.S., and M.L. Pokorny. 2005. Restoration of weed infested sites. WSWS Noxious Weed Management Short Course, Chico, MT.
- Pokorny, M.L. 2005. Native plant restoration after weed control. Ecological Restoration in the Wilderness. National Park Service, USFS Region 1, and Rocky Mountain CESU workshop. Greenough, MT. (invited)
- Jacobs, J.S., and M.L. Pokorny. 2004. Ecologically-based management of Dalmatian toadflax. Bucksnot-After the fire tour. East Helena, MT.
- Pokorny, M.L., and J.S. Jacobs. 2004. What is Ecologically-based Invasive Species Management? Third Annual Agricultural Conference and Expo. University of Montana-Western. Dillon, MT. (invited)

GRANTS, CONTRACTS - \$933,000 awarded since 2000; details available on request.

PROFESSIONAL INVOLVEMENT & TRAINING

Workshops and Symposiums organized

Filling a Void: Growing Montana's Restoration Workforce. Governors Workshop on Education and Training for the Restoration Economy. 2008. Joint workshop with the Montana Department of Natural Resources and Conservation, Office of the Commissioner of Higher Education, and Montana Tech of the University of Montana. Butte, MT.

Gardiner Basin Restoration Workshop. 2005. Joint workshop with Yellowstone National Park, Gallatin National Forest, and Center for Invasive Plant Management at MSU. Gardiner, MT.

Invasive Species: Science and Management. 2005. Society for Range Management 58th Annual Meeting. Fort Worth, TX.

Restoration of invasive plants infestations: On the edge between science and management. 2004. Society for Ecological Restoration. Victoria, BC, Canada.

What is Ecologically-based Invasive Species Management? 2004. Third Annual Agricultural Conference and Expo. University of Montana-Western. Dillon, MT.

Invasive species management on reclaimed lands. 2003. Joint conference of the 9th Billings Land Reclamation Symposium and the 20th Annual Meeting of American Society of Mining and Reclamation. Billings, MT.

Memberships

Society for Ecological Restoration, member

Montana Weed Control Association, Integrated Weed Management Committee Chair, BOD

Northern Rockies Invasive Plant Council, member

Montana Department of Transportation Science Advisory Committee

Montana Native Plant Society- former chapter President, MNPS State Chapter BOD, member

Gateway Youth Group, former BOD member, Treasurer, and President

Training

Range Monitoring - Land EKG Training

Riparian management: Assessing Proper Functioning Condition, NRCS

Restoration of Disturbed Wildlands, BLM Training Center

Understanding Hydrology for Constructed Wetlands, Wetland Training Institute

Wetland Delineation with emphasis on soils and hydrology, Wetland Training Institute

Montana Noxious Weed Management Certification, MWCA

OSHA 1910.120 Hazardous Waste Operations and Emergency Response, Safety & Health Service