

**Michael F. Merigliano Jr.**

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**Education**

Ph.D. Forestry, ecology emphasis, December 1996. University of Montana. Missoula, Montana  
M.S. Forestry, May 1994. University of Montana. Missoula, Montana  
B.S. Forest Resources Management. May 1981. University of Idaho. Moscow, Idaho  
A.A.S. Forestry, May 1978. Paul Smith's College. Paul Smiths, New York

**Professional Experience**

Teaching. Riparian Ecology and management. School of Forestry, University of Montana. 3 credit, senior/graduate level elective course. 2001 to 2002.  
Research Associate. University of Montana, College of Forestry and Conservation (formally School of Forestry). Principal investigator of various research projects related to riparian vegetation ecology. Continued collaboration with US Geological Survey on riparian vegetation studies. Graduate student advising.  
Post-doctoral scholar. Cooperative agreement between U.S. Geological Survey, Biological Resources Division and University of Montana. August 1996 to 1998. Collaboration on various research projects related to riparian vegetation. Data collection and analysis. Development and critique of research plans. Writing research publications.  
Instructor. Teton Science School, Kelly, WY. July 26 to 28, 1998. Team taught a River Channels (professional seminar) course with Luna Leopold, Scott McBain, and William Trush.  
Instructor. Idaho State University. January and February, 1998. Team-taught a continuing-education course in local natural history and ecology with Michael B. Whitfield, Mary Maj, and Blair Baldwin.  
Instructor. Eastern Idaho Technical College. January and February, 1996, 1997. Team-taught a continuing-education course in local natural history and ecology.  
Instructor. Training Workshop in Threatened & Endangered Plant Species, Bridger-Teton National Forest. June 19-22 1995.  
Research Assistant. University of Montana. May 1991 to October 1996. Research on cottonwood forests, including tree and stream deposit aging, assessing stream channel changes, streamflow analysis, relating edaphic factors to vegetation composition and plant moisture stress. Sampled vegetation for riparian vegetation classification in eastern Idaho.  
Teaching assistant. University of Montana. January to May, 1991 and 1993. Assisted teaching of technical writing to undergraduate and graduate students of several majors (1991). Developed and taught lab portion of forest ecology course undergraduate and graduate students in forestry (1993).  
Field Biologist. Montana State University. Winters of 1988-89, 1989-1990. Field data collection of bald eagle habitat use and behavior. Extensive use of radio telemetry. Banding and trapping eagles.  
Professional ski instructor. Grand Targhee Resort. Winter of 1987. Taught nordic downhill and touring techniques.  
Clerk. U.S. Agriculture Stabilization and Conservation Service. November 1985 to May 1986. Re-mapped farm and field attributes for two counties. Data base entry. This was the beginning of computer use in local ASCS offices.  
Forest Technician. U.S. Forest Service, Targhee National Forest. variable-length appointments, May 1981 to September

1991. Primary Tasks: All aspects of timber sale preparation and planning. Harvest scheduling. Forest inventory. Employee supervision. Special tasks: Vegetation and rare plant surveys for Environmental Impact Statement for ski area.  
Reconnaissance investigation of flood plain forests along Snake River for management plan development. Vitae: Michael F. Merigliano Jr.  
Tutor. University of Idaho. Spring 1981. Tutored undergraduates in biometry.  
Forest Technician. Idaho Department of Lands. St. Maries, Idaho. summers of 1979 and 1980. Timber marking and mensuration, land line and project survey, prescribed burning.  
Trail Crew leader. Adirondack Mountain Club. Glens Falls, New York. June to August 1976. Maintained and reconstructed a highly eroded mountain trail. Coordinated with state officials, surveyed and planned future work. This was a pilot project between the New York State Department of Environmental Conservation and the Club.

### **Publications**

In preparation or review:

Merigliano, M. F. Flood-plain and vegetation dynamics along a gravel bed, braided river in the northern Rocky Mountains.

Ecological Monographs.

Merigliano, M. F. Cottonwood forest zonation and its relation to flood plain stratigraphy. Wetlands.

In press or published:

Scott, M. L., and S. K. Skagen, M. F. Merigliano. 2003. Bird diversity and geomorphic change in riparian forests.

Conservation Biology 17(1):284-296

Merigliano, M. F. and P. Lesica. 1998. The native status of reed canarygrass in the inland northwest, U.S.A. Natural Areas

Journal 18(3):223-230

Merigliano, M. F. 1998. Cottonwood and willow demography on a young island, Salmon River, Idaho.

Wetlands 18(4):571-

576

Merigliano, M. F. 1998. Big weeds and destructive floods: Cottonwood ecosystems and related conservation issues. Sage

Notes (Idaho Native Plant Society) 20(2):7-8. (Republished in The Retort (Idaho Academy of Science) 34(2):16-17.

Merigliano, M. F. 1996. Ecology and management of the South Fork Snake River cottonwood forest.

Bureau of Land

Management Technical Bulletin 96-9. 79 p. + appendices.

Merigliano, M. F. 1997. Hydraulic geometry and stream channel behavior: an uncertain link. Journal of the American Water

Resources Association 33(6):1327-1336.

Merigliano, M. F. 1997. A primer on cottonwoods. Kelseya.10(3):1,6

Merigliano, M. F. 1997. The flood and cottonwood ecology on the South Fork. *In*: Proceedings of the Fourth Annual State of

the Watershed Conference. October 21, 1997. p. 21-22. Henry's Fork Watershed Council. Henry's Fork

Foundation. Island Park, Idaho. Pat Feldsien, ed.

Merigliano, M. F. 1996. Book Review: Data analysis in community and landscape ecology by Jongman, ter Braak, and van

Tongeren. Natural Areas Journal 16(4):368.

Merigliano, M. F. 1996. Flood-plain and vegetation dynamics along a gravel bed, braided river in the northern rocky

mountains. Ph.D. Dissertation. The University of Montana. Missoula, MT. 182 p.+ 17 map plates.

Merigliano, M. F. 1994. A natural history of the South Fork Snake River, emphasizing geomorphology, hydrology and

vegetation. M. S. thesis. The University of Montana. Missoula, MT. 278 p.

Merigliano, M. F. and D. F. Potts. 1994. Snake River channel changes below the Palisades reservoir in eastern Idaho. *In*: Effects of human-induced changes on hydrologic systems. American Water Resources Association. Bethesda, Maryland pp. 639-648

### **Reports**

Merigliano, M. F. and M. L. Polzin. 2003. Temporal patterns of channel migration, fluvial events, and associated vegetation along the Yellowstone River, Montana. Final Report to Governor's Upper Yellowstone River Task Force and the US

Army Corps of Engineers

Merigliano, M. F. 2004 Some flood plain properties along the upper Yellowstone River and their use for monitoring

cumulative effects of bank stabilization. Interim report to US Geological Survey, Biological Resource Division and US

Army Corps of Engineers

Merigliano, M. F. 1997. A review of Cottonwood Creek channel dynamics. Prepared for the Jackson Ranger District,

Bridger-Teton National Forest. Jackson, Wyoming.

### **Invited Presentations**

Merigliano, M. F. and M. L. Polzin. 2004. Temporal patterns of channel migration, fluvial events, and associated vegetation along the Yellowstone River, Montana. Annual Meeting of the Montana Chapter of the American Fisheries Society.

February 5.

Vitae: Michael F. Merigliano Jr.

Merigliano, M.F. 2003. Cottonwood forest age structure as an indicator of flood plain dynamics and climate. Colloquium in

Life Sciences. Colorado State University. Fort Collins. November 17.

Merigliano, M.F. and M.L. Polzin. 2003. Temporal patterns of channel migration, fluvial events, and associated vegetation

along the Yellowstone River, Montana. Presented to Governor's Task Force, Upper Yellowstone River. Chico Hot

Springs, Montana. October 23.

Merigliano, M.F. and M.L. Polzin. 2003. Temporal patterns of channel migration, fluvial events, and associated vegetation

along the Yellowstone River, Montana. Presented to Governor's Task Force, Upper Yellowstone River. Livingston,

Montana January 7.

Merigliano, M.F. 2002. Assessing flood plain dynamics using cottonwood ages along the Yellowstone River. 19<sup>th</sup> annual

Montana Water Conference. American Water Resources Association. The Future of the Yellowstone River. Livingston,

Montana. October 3.

Merigliano, M.F. 2002. Aquatic Factors in Watershed Management: Stream Processes. Society of American Foresters

Montana State Meeting. Watershed Management: Science and Practice. Butte, Montana. March 8.

Merigliano, M. F. 2001. Flood plains, their dynamics, and techniques for measuring them. Ecology Seminar. Montana State

University. Bozeman, Montana. April 5, 2001.

Merigliano, M. F. and M. L. Polzin. 2001. techniques for quantifying long-term flood plain dynamics. Annual Meeting,

Montana Chapter of the American Fisheries Society. Butte, Montana January 25, 2001.

Merigliano, M. F. 1999. The value of riparian areas. Eastern Idaho Watershed Conference: Building watershed community

for the new millennium. Idaho State University. Pocatello, Idaho October 21-23, 1999.

- Merigliano, M. F. 1999. Vegetation composition and its relation to flood plain stratigraphy. Riparian vegetation classification symposium. Northwest Scientific Association 1999 Annual Meeting. Tacoma, Washington. March 26, 1999.
- Merigliano, M. F. 1999. Prescribed flows for maintaining and restoring cottonwood ecosystems on regulated rivers. A watershed approach to protecting and restoring a stream ecosystem. American Fisheries Society 33<sup>rd</sup> annual meeting and Symposium. California-Nevada Chapter. Redding, California. March 25, 1998.
- Merigliano, M. F. 1997. Flow history and resulting cottonwood age structure along the Snake River, eastern Idaho. Society of Wetland Scientists 18<sup>th</sup> Annual Meeting. Bozeman, MT. June 1-6.
- Merigliano, M. F. 1997. The flood and cottonwood ecology on the South Fork. Fourth Annual State of the Watershed Conference. Rexburg, Idaho. October 21, 1997.
- Merigliano, M. F. 1996. In a river and along its banks: the ecology of cottonwood communities. Montana Audubon Council Annual Meeting. Fairmont, MT. April 26-28
- Merigliano, M. F. 1996. Cottonwood forests of the South Fork Snake Idaho Rivers United Symposium: The Snake River-Balancing the Vision. Twin Falls, Idaho February 29-March 2
- Merigliano, M. F. 1995. Effects of Palisades Dam on the South Fork Snake River: Hydrologic, geomorphic, and vegetative response. Invited Seminar Series at Midcontinent Ecological Science Center. U.S. Fish and Wildlife Service. Fort Collins, CO. April 25.
- Merigliano, M. F. 1995. Cottonwood ecology and implications for river management. Idaho Department of Water Resources, South Fork Snake Advisory Group Meeting. Ririe, ID. August 28.
- Merigliano, M. F. 1994. Cottonwoods and dams: can they coexist? American Fisheries Society, Western Division, 1994 Annual meeting. Flagstaff, AZ. June 19-23.
- Contributed Presentations**
- Merigliano, M. F. and Polzin, M. L. 2004. Cottonwood forest age structure as an indicator of flood plain dynamics: a new look at an old idea. Society of Wetland Scientists 25<sup>th</sup> Annual Conference. Seattle, WA. Scheduled for July 19.
- Merigliano, M.F., M. C. Williamson, and H. R. Zuuring. 2002. Riparian restoration with prescribed flows: cottonwood regeneration along a dammed river after a large flood. Society of Wetland Scientists 23<sup>rd</sup> Annual Conference. Lake Placid, New York. June 4.
- Merigliano, M. F. 2001. The impact of fuel wood cutting on upper Missouri River cottonwoods during the steamship era. 5<sup>th</sup> Annual Missouri River Natural Resources Conference. 2001: A Missouri River Odyssey. Great Falls, Montana. June 26.
- Auble, G. T, M. L. Scott, J. Frazier, and M. F. Merigliano. 2001. Cottonwood reproduction along the wild and scenic reach of the Missouri River. 5<sup>th</sup> Annual Missouri River Natural Resources Conference. 2001: A Missouri River Odyssey. Great Falls, Montana. June 25.
- Scott, M. L. S. A. Skagen, M. F. Merigliano, and G. T. Auble. 2001. Bird diversity and geomorphic change in riparian forests. 5<sup>th</sup> Annual Missouri River Natural Resources Conference. 2001: A Missouri River Odyssey. Great Falls, Montana. June 24 to June 27. Poster.

Merigliano, M. F., M. L. Scott, and S. K. Skagen. 2000. Linking geomorphology, vegetation, and bird diversity along a great plains river, USA. Oral presentation to be given at Society for Conservation Biology Annual Meeting, June 9 to 12,

Vitae: Michael F. Merigliano Jr.

Missoula, Montana.

Merigliano, M. F. and P. Lesica. 1998. The native status of reed canarygrass in the inland northwest, U.S.A. Ecosystem

Restoration: Turning the Tide. Society for Ecological Restoration, Northwest Chapter. Conference and Annual Meeting.

Tacoma, WA. October 27-30.

Merigliano, M. F. 1998. Vegetation diversity and its relation to flood plain stratigraphy. American Society of Limnology and

Oceanography and the Ecological Society of America Joint Meeting. St. Louis, MO. June 7-12.

Merigliano, M. F. 1996. Cottonwood forest dynamics along the South Fork Snake River, Idaho. Blue Mountains Natural

Resources Institute. Aspen and cottonwood in the Blue Mountains. La Grande, OR April 2-4. Poster.

Merigliano, M. F. 1994. Stream channel behavior and hydraulic geometry. Montana State Meeting of American Water

Resources Association. Missoula, MT. October 13.

### **Professional Societies**

American Water Resources Association, Ecological Society of America, Society of Wetland Scientists

### **Off-Campus Consulting, Professional Activities, and Continuing Education**

Advisor for restoration projects in Idaho, Wyoming, New York, and California, including CALFED project on the

Sacramento-San Joaquin River basins. Channel migration study for U.S. Forest Service, Bridger-Teton National Forest, 1997.

Habitat use by harlequin duck in northern Grand Teton National Park, Wyoming Department of Game and Fish, 2004.

Vegetation classification of the upper Snake River valley, Teton Regional Land Trust, on-going. Climatic and fluvial history

of the Redwater River, Montana and related cottonwood forest age structure, McCone County Conservation District, ongoing.

Member of Technical Advisory team, Henry's Fork Watershed Council 1993 to 1999.

Expert witness:

US Attorney's Office, Pocatello, Idaho. Defined channel migration and stream deposit age for contested Public Land boundaries.

Jackson Hole Land Trust, Jackson, WY. Cottonwood stand damage assessment and prospects for restoration.

Holland and Hart. Cottonwood stand aging.

Manuscript reviewer for Ecological Applications, Ecoscience, Journal of Intermountain Science, Rivers, American Water

Resources Association.

Professional seminar in fluvial geomorphology (River Channels) with Dr. Luna Leopold, July 1990. (College accredited

course, but not on transcripts)

Certified Timber Cruiser, U.S. Forest Service. 1982 to 1991

Advanced mensuration training, US Forest Service, June 1982.

Certified para-professional archeologist, US Forest Service, 1986 to 1991

Certificate of Merit and cash awards, U.S. Forest Service