

# Michael T. Tercek

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## Work Experience

- 2007 - present      *Chief Scientist, Founder*, Walking Shadow Ecology, Gardiner, MT. WSE is an ecological research and consulting company that specializes in the Greater Yellowstone Ecosystem. Projects include studies of landscape-level trophic interactions, community ecology of plants exposed to naturally occurring carbon dioxide springs, and short-term consultations for visiting researchers. Visit [www.YellowstoneEcology.com](http://www.YellowstoneEcology.com) for project details.
- 2008 - present.      *Research Associate*, Big Sky Institute, Montana State University, Bozeman, MT. This position allows me to do consulting and field projects for the National Park Service and other agencies that have cooperative agreements with Montana State University. Money from these agencies funds this position on an as-needed basis. See "Other Reports and Publications" for details.
- 2005 - 2008          *Postdoctoral Researcher*, Colorado State University, Fort Collins, CO. Research on trophic interactions involving wolves, elk, and willow on Yellowstone's northern range.
- 2004 - 2005          *Postdoctoral Researcher*, Montana State University, Bozeman, MT. Research on the ecology of plants that grow in geothermally active areas of Yellowstone National Park.

## Education

- 1996 - 2003          Ph.D., Ecology and Evolutionary Biology, Tulane University, New Orleans, LA.
- 1990 - 1994          B.A., Philosophy, Kent State University, Kent, OH.

## Skills and Interests

- Plant ecology.
- Field survey and monitoring techniques
- GIS mapping and GIS statistical techniques
- Computer programming in Python and the R statistical language. I can write custom applications that will automate data manipulation and summarization. [Click here for an example.](#)
- Design and deployment of scientific equipment under challenging environmental conditions
- Repair and maintenance of electronic devices, including re-design and adaptation of Hardware
- Predicted effects of climate change in Yellowstone
- Ecological literature pertaining to the Greater Yellowstone Area
- Mechanical skills. I put myself through college by working as an auto mechanic.

- Back-country skills. After 20 years in the Greater Yellowstone Ecosystem, I have hiked to many places that are unknown to the general public. I routinely camp by myself in remote areas for extended periods of time

### **Peer-reviewed Scientific Publications**

- Tercek, M.T.**, S. Gray, and C. Nicholson. 2011. Delineation of climate zones for the Greater Yellowstone Ecosystem, including Yellowstone and Grand Teton National Parks. In Review
- Tercek, M.T.**, R. Stottlemeyer, and R. Renkin. 2010. Bottom-up factors influencing riparian willow recovery in Yellowstone National Park. *Western North American Naturalist* 70: 387-399. [view pdf](#)
- Appoloni, S., Y. Lekberg, **M.T. Tercek**, C.A. Zabinski, and D. Redecker. 2008. Molecular community analysis of arbuscular mycorrhizal fungi in roots of geothermal soils of Yellowstone National Park (USA). *Microbial Ecology* 56: 649-659. [view pdf](#)
- Tercek, MT** and J.L. Whitbeck. 2004. Heat avoidance life history strategy controls the distribution of geothermal *Agrostis* in Yellowstone. *Ecology* 85(7):1955-1966. [view pdf](#)
- Tercek, M.T.**, D. P. Hauber and S.P. Darwin. 2003. Genetic and historical relationships among geothermally adapted *Agrostis* of North America and Kamchatka: evidence for a previously unrecognized, thermally adapted taxon. *American Journal of Botany* 90:1306-1312. [view pdf](#)
- Tercek, M.T.**, J.W. Whitbeck, and J.C. King. In prep. A naturally occurring carbon dioxide spring in Yellowstone National Park exhibits potential as a complement to long-term Free Air Carbon Enrichment (FACE) studies.

### **Other Reports and Publications**

- Tercek, M.T.** 2010. Climate zonation analysis for Glacier National Park, Rocky Mountain National Park, Great Sand Dunes National Park, Little Bighorn Battlefield National Monument, Grant-Kohrs Ranch National Historic Site, and Florissant Fossil Beds National Monument. Report submitted to the National Park Service's Rocky Mountain Network, a division of the Inventory and Monitoring Program.
- Tercek, M.T.** 2010. Yellowstone northern range riparian willow inventory. Report submitted to the National Park Service in Yellowstone. [view pdf](#)
- Tercek, M.T.**, S.T. Gray, and C.M. Nicholson. 2010. Climate of 2009, Greater Yellowstone Network. Technical report submitted to the National Park Service's Greater Yellowstone Network, a division of the Inventory and Monitoring Program.
- Frakes, B. , S. Ostermann-Kelm, I. Ashton, J. Burke, R. Daley, **M. Tercek**, D. Pillmore, C. Jean, M. Britten, S. Gray, and T. Kittel. 2009. Rocky Mountain Climate Protocol: Climate monitoring in the Greater Yellowstone and Rocky Mountain Inventory and Monitoring Networks. National Park Service Technical Report.

**Tercek, M.T.,** T. S. Al-Niemi, and R.G. Stout. 2008 Plants Exposed to High Levels of Carbon Dioxide in Yellowstone National Park. *Yellowstone Science* 16:12-19. [view pdf](#)

## **Project Funding**

*Not including consultation fees*

- 2010 - 2011      \$25,000. Mapping rare *Eriogonum umbellatum* varieties in the vicinity of Old Faithful. National Park Service.
- 2007 - 2010      \$66,000. Mapping and inventory of riparian willow on the northern range of Yellowstone National Park. Yellowstone Center for Resources, National Park Service.
- 2008              \$49,000. High carbon dioxide habitats of Yellowstone as a long-term complement to FACE studies. In collaboration with Julie Whitbeck, University of New Orleans. National Science Foundation, SGER.