



## David J. Mattson Research Wildlife Biologist

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### Current positions

**Research Wildlife Biologist & Research Station Liaison**, USGS Southwest Biological Science Center  
**Adjunct Faculty**, Department of Biology and Center for Sustainable Environments, Northern Arizona University  
**Western Field Director**, MIT-USGS Science Impact Collaborative, MIT Department of Urban Studies & Planning  
**Lecturer & Visiting Senior Scientist**, Yale School of Forestry & Environmental Studies

### Research interests

- Consensus-building and collaboration
- Conservation policy and decision-making
- Relations between science and policy
- Behavioral ecology and demography of large carnivores
- Spatial models of habitat suitability and demography
- Human-large carnivore relations

### Selected research experience

- Demography, foraging behavior, and relations with humans and habitat, **Yellowstone grizzly bears**, 1979-present
- Demography and relations with humans and habitat, **Kluane grizzly bears**, Yukon Territory, 1992-2006
- Models of habitat suitability for **grizzly bears in western North America**, 1995-present
- Conservation policy systems for **grizzly bears, mountain lions, and wildlife water developments**, 1995-present
- Practices to foster coexistence between **ranchers and grizzly bears**, western Montana, 1998-2006
- Demography, foraging behavior, and relations with humans and habitat, **mountain lions in Arizona and Utah**, 2002-present
- **Leadership and stakeholder perspectives** in conservation practice, 2004-present

### Selected experiences at the science-policy interface

- Development and review of plans for managing bears and human facilities in the Yellowstone region, 1985-1992
- Development of the Cumulative Effects Model (CEM) for Yellowstone grizzly bears, 1983-2005
- Consultant on developing and applying of CEMs for Parks Canada, 1990-1994
- Consultant on the effects of expanding ski areas in and near Banff and Waterton NPs, Canada, 1990-1994
- Member of the Scientific Review Committee for the *Banff-Bow Valley Task Force*, Canada, 1995-1996
- Consultant on the effects of roads and river-side campsites in Kluane National Park, 1994-1998
- Member of review panel for the *Tongass Land Management Plan*, 1996-1997
- Invited reviewer of numerous high-profile management plans or research programs for grizzly bears and mountain lions
- Development and review of Inventory & Monitoring Programs for Colorado Plateau National Parks, 2001-2006
- Consultant on habitat suitability models for Japanese black and brown bears, 2004
- Design and implementation of workshops to foster common ground among participants in conservation cases, 2002-2004

### Selected publications

- Mattson, D.J.**, & N. Chambers (2008). Human-provided waters for desert wildlife: What is the problem? *Policy Sciences*. (INVITED)
- Mattson, D.J.**, & S.G. Clark (In press). People, politics, and cougar management. Pages 000-000 in M. Hornocker & S. Negri, editors. *Cougar: Ecology and Conservation*. University of Chicago Press, Chicago, IL. (INVITED)
- Mattson, D.J.**, & T. Merrill (2007). Policy-oriented conservation design. In M.F. Price, editor. *Mountain Area Research and Management: Integrated Approaches*. Earthscan Press, London, UK. (INVITED)
- Mattson, D.** (2007). Managing for human safety in mountain lion range. Pages 43-56 in D. Mattson, editor. *Mountain Lions of the Flagstaff Uplands: 2003-2006 progress report*. USGS Open-File Report **2007-1062**.
- Wilson, S.M., M.J. Madel, **D.J. Mattson**, J.M. Graham, & T. Merrill (2006). Landscape conditions predisposing grizzly bears to conflicts on private agricultural lands in the western USA. *Biological Conservation* **130**: 47-59.
- Mattson, D.J.**, K.L. Byrd, M.B. Rutherford, S.R. Brown, & T.W. Clark (2006). Finding common ground in large carnivore conservation: Mapping contending perspectives. *Environmental Science and Policy* **9**: 392-405.
- Wilson, S.M., M.J. Madel, **D.J. Mattson**, J.M. Graham, J.A. Burchfield, & J.M. Belsky (2005). Natural landscape features, human-related attractants, and conflict hotspots: A spatial analysis of human-grizzly bear conflicts. *Ursus* **16**: 117-129.

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### Selected publications (continued)

- Mattson, D.J.**, S. Herrero & T. Merrill (2005). Are black bears a factor in the restoration of North American grizzly bear populations? *Ursus* **16**: 11-30.
- Mattson, D.** (2005). Seeing the elephant: Holistic intelligence for solving wildlife-related problems. Pages 53-56 in L. Taylor and P. Murphy, editors. *Proceedings of the Conference on Interdisciplinary Research and Management in Mountain Areas*. The Banff Centre, Banff, AB, Canada. (INVITED)
- Clark, T.W., & **D.J. Mattson** (2005). Making carnivore management programs more effective: A guide for decision making. Pages 271-276 in T.W. Clark, M.B. Rutherford, and D. Casey, editors. *Coexisting with Large Carnivores*. Island Press, Washington, D.C.
- Mattson, D.J.**, K. Barber, R. Maw & R. Renkin (2004). *Coefficients of Productivity for Yellowstone's Grizzly Bear Habitat*. U.S. Geological Survey, Biological Resources Discipline Biological Science Report **USGS/BRD/BSR-2002-0007**. Monograph. [http://sbosc.wr.usgs.gov/cprs/research/projects/grizzly/grizzly\\_yellowstone.asp](http://sbosc.wr.usgs.gov/cprs/research/projects/grizzly/grizzly_yellowstone.asp).
- Mattson, D.J.**, & T. Merrill (2004). A model-based appraisal of habitat conditions for grizzly bears in the Cabinet-Yaak region of Montana and Idaho. *Ursus* **15**: 78-91.
- Mattson, D.J.** (2004). Consumption of pocket gophers and their food caches by grizzly bears. *Journal of Mammalogy* **85**: 731-742.
- Mattson, D.J.** (2004). Living with fierce creatures? An overview and models of mammalian carnivore conservation. Pages 151-176 in N. Fascione, A. Delach & M. Smith, editors. *Predators and People: From Conflict to Conservation*. Island Press, Washington, D.C. (INVITED)
- Merrill, T., & **D.J. Mattson** (2003). The extent and location of habitat biophysically suitable for grizzly bears in the Yellowstone region. *Ursus* **14**: 171-187.
- Mattson, D.J.**, & T. Merrill (2002). Extirpations of grizzly bears in the contiguous United States, 1850–2000. *Conservation Biology* **16**: 1123-1136. (Paper featured in press release by Conservation Biology and solicited for inclusion in eForum on *Biocomplexity & Conservation*)
- Hendee, J.C., & **D.J. Mattson** (2002). Wildlife in wilderness: A North American and international perspective. Pages 321-349 in J.C. Hendee & C.P. Dawson, editors. *Wilderness Management: Stewardship and Protection of Resources and Values*. 3rd Edition. Fulcrum Publishing, Golden, CO. (INVITED)
- Mattson, D.J.**, K.C. Kendell & D.P. Reinhart (2001). Whitebark pine, grizzly bears and red squirrels. Pages 121-136 in D.F. Tomback, S.F. Arno, & R.E. Keane, editors. *Whitebark Pine Communities: Ecology and Restoration*. Island Press, Washington, D.C. (INVITED)
- Clark, T.W., **D.J. Mattson**, R.P. Reading & B. Miller (2001). Interdisciplinary problem solving in carnivore conservation: An introduction. Pages 223-240 in J.L. Gittleman, S.M. Funk, D. Macdonald, & R.K. Wayne, editors. *Carnivore Conservation*. Cambridge University Press, Cambridge, U.K. (INVITED)
- Pease, C.M., & **D.J. Mattson** (1999). Demography of the Yellowstone grizzly bears. *Ecology* **80**: 957-975. (Paper featured in press release by Ecology and in an article by Science)
- Merrill, T., **D.J. Mattson**, R.G. Wright & H.B. Quigley (1999). Defining landscapes suitable for restoration of grizzly bears *Ursus arctos* in Idaho. *Biological Conservation* **87**: 231-248.
- Mattson, D.J.**, & D.P. Reinhart (1997). Excavation of red squirrel middens by Yellowstone grizzly bears. *Journal of Applied Ecology* **34**: 926-940.
- Mattson, D.J.** (1997). Wilderness-dependent wildlife: The large and the carnivorous. *International Journal of Wilderness* **3**: 34-38. (INVITED)
- Mattson, D.J.** (1997). Use of ungulates by Yellowstone grizzly bears *Ursus arctos*. *Biological Conservation* **81**: 161-177.
- Green, G.I., **D.J. Mattson** & J.M. Peek (1997). Spring feeding on ungulate carcasses by grizzly bears in Yellowstone National Park. *Journal of Wildlife Management* **61**: 1040-1055.
- Mattson, D.J.** (1997). Selection of microsites by grizzly bears to excavate biscuitroots. *Journal of Mammalogy* **78**: 228-238.
- Mattson, D. J.**, S. Herrero, R.G. Wright & C.M. Pease (1996). Designing and managing protected areas for grizzly bears: How much is enough? Pages 133-164 in R.G. Wright, editor. *National Parks and Protected Areas: Their Role in Environmental Protection*. Blackwell Science, Cambridge, MA. (INVITED)
- Mattson, D.J.**, S. Herrero, R.G. Wright & C.M. Pease (1996). Science and management of Rocky Mountain grizzly bears. *Conservation Biology* **10**: 1013-1025. (INVITED)
- Mattson, D.J.** (1995). The New World Mine and grizzly bears: A window on ecosystem management. *Journal of Energy, Natural Resources & Environmental Law* **15**: 267-293. (INVITED)
- Mattson, D.J.**, & J.J. Craighead (1994). The Yellowstone grizzly bear recovery program: Uncertain information, uncertain policy. Pages 101-129 in T.W. Clark, R.P. Reading & A. Clarke, editors. *Endangered Species Recovery: Finding the Lessons, Improving the Process*. Island Press, Washington, D.C. (INVITED)
- Mattson, D.J.**, B.M. Blanchard & R.R. Knight (1992). Yellowstone grizzly bear mortality, human habituation, and whitebark pine seed crops. *Journal of Wildlife Management* **56**: 432-442.