

Curriculum Vitae

Daniel H. Mann

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Geography Program
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DEGREES EARNED

1976: B.A. Anthropology (University of Washington)
1978: M.S. Forest Entomology (College of Forest Resources, University of Washington)
1983: Ph.D. Soil Science and Quaternary Studies (College of Forest Resources,
University of Washington)

THESIS AND DISSERTATION

M.S.: Ecology of Snowfield-foraging Arthropods on Mount Rainier (advisors:
R.I. Gara and J.S. Edwards)
Ph.D.: The Quaternary History of the Lituya Glacial Refugium, Alaska (advisor: F.C.
Ugolini)

POSITIONS HELD

1983-85: Postdoctoral Research Associate, University of Washington.
1985-88: Director, Field Naturalist Program, Botany Department, University of Vermont.
1988-90: Research Associate, Quaternary Research Center, University of Washington.
1989-91: Geological Consultant, Woodward-Clyde Environmental Consultants.
1990-91: Research Associate, Alaska Quaternary Center, University of Alaska.
1992: Visiting Professor, University of Alaska.
1993-present: Research Associate, University of Alaska

TEACHING EXPERIENCE

1976-82 Teaching Assistant, University of Washington, Departments of Forest Resources and
Zoology. I was a laboratory instructor in entomology courses and introductory biology
courses while a graduate student.
1985-1988 Lecturer, University of Vermont, Botany Department. In addition to directing the
School for Field Naturalists, I also taught formal courses in Landscape Analysis and
Geomorphology.
1992 Visiting Professor, University of Alaska. I taught a course on Landscape Analysis that
resulted in publication of a journal article (Mann et al., 1995) with some of the students
as coauthors.
1994 Lecturer, University of Alaska, Geology Department. I taught Geomorphology as a one-
semester, sabbatical replacement.

ADMINISTRATION AND LEADERSHIP EXPERIENCE

1983 - present I have directed numerous field and laboratory projects. Many of the field projects
involved 4-6 people working in remote locations.

1985 - 1988 The School for Field Naturalists was founded in 1984 by Dr. Hubert Vogelmann, a well-known Vermont conservationist, with funding from the Andrew W. Mellon Foundation. I was hired as program director to develop a course curriculum and advise the graduate students enrolled in the program working on MSc. degrees in Botany. My other duties included overseeing the program's budget and fund-raising.

CURRENT RESEARCH PROJECTS

- 1) Role of Loess Weathering in Geochemical Cycles; *collaborator*: Suzanne Anderson (Geography Department, University of Colorado); *project stage*: write-up
- 2) Environmental Change and Paleoindian Ecology in New Mexico; *collaborator*: David Meltzer (Southern Methodist University); *project stage*: write-up and new field work in West Texas.
- 3) Environmental Change and Paleoindian Ecology on Alaska's North Slope; *collaborators*: Michael Kunz (Bureau of Land Management) and Pamela Groves (University of Alaska); *project stage*: write-up and continued field work
- 4) Climate Control over Red Salmon Populations in Southern Alaska; *collaborator*: Bruce Finney, University of Alaska; *project stage*: write-up
- 5) Computer Modeling Climate Change, Wildland Fires, and Vegetation Change in Interior Alaska; *collaborator*: Scott Rupp, University of Alaska; *project stage*: year two of a three-year grant, advising graduate students, editing graduate-student publications from the previous grant on this same topic, and submitting related proposals
- 6) Role of Drought in the Societal Collapse on Easter Island; *collaborator*: James Edwards, Oregon Health Sciences University; *project stage*: write-up
- 7) Sea-Level History in Icy Strait, Southeast Alaska; *collaborator*: Greg Streveler, Icy Strait Environment Consultants; *project stage*: write-up
- 8) Glacial History in the Ellsworth Mountains, Antarctica; *collaborator*: John Stone, University of Washington; *project stage*: write-up and submitting related proposal

INVITED LECTURES

- 2001 "Persistence Selection: The Shared Driver of All Self-Organized Systems?" Scripps Institute, seminar series on self-organization.
- 2002 "Glacial Geology and the Timing of Human Migration into the New World." AMQUA meeting, Anchorage.
- 2004 "The Biology of Invasions and its Implications for Human Entry into the New World." Quaternary Research Center seminar series, University of Washington.

PUBLICATIONS (* papers with student coauthors)

Ugolini, F.C. and Mann, D.H. (1979). Biopedological origin of peatlands in southeast Alaska. *Nature* 281,366-368.

Mann, D.H., Edwards, J.S., and Gara, R.I. (1980). Diel activity patterns in snowfield-foraging invertebrates on Mount Rainier, Washington. *Arctic and Alpine Research* 12, 359-368.

Edwards, J.S. and Mann, D.H. (1981). The structure of the cercal sensory system and ventral nerve cord of *Grylloblatta*, a comparative study. *Cell and Tissue Research* 217, 177-188.

Wright, H.E., Mann, D.H., and Glaser, P.H. (1984). Piston corers for peat and lake sediments. *Ecology* 65, 657-659.

Mann, D.H. and Ugolini, F.C. (1985). Holocene glacial history in the Lituya District, southeast Alaska. *Canadian Journal of Earth Sciences* 22, 913-928.

Mann, D.H. (1986). Reliability of a fjord glacier's fluctuations for paleoclimatic reconstructions. *Quaternary Research* 25, 10-24.

Mann, D.H., Sletten, R.S., and Ugolini, F.C. (1986). Soil development at Kongsfjord, Spitsbergen. *Polar Research* 4, 1-16.

Mann, D.H. (1986). Wisconsin and Holocene glaciation of southeast Alaska. In: T.D. Hamilton, K.M. Reed, and R.M. Thorson (Eds.), "Glaciation in Alaska." Alaska Geological Society, Anchorage, 265 pp.

Hequette, A. and Mann, D.H. (1987). Des figurations immergees, preuve d'une transgression marine ayant succede a l'emersion postglaciaire au Spitsbergen nord-occidental (Svalbard). *Comptes Rendus de L'Academie Des Sciences, Serie II*, 303, 1237-1240.

Forman, S.L., Mann, D.H., and Miller, G.H. (1987). Late Weichselian and Holocene relative sea-level history of Broggerhalvoya, Spitsbergen. *Quaternary Research* 27, 41-50.

*Engstrom, F.B. and Mann, D.H. (1991). Fire ecology of red pine in northern Vermont, U.S.A. *Canadian Journal of Forest Research* 21, 882-889.

Riehle, J.R., Mann, D.H., Peteet, D.M., Engstrom, D.R., Brew, D.A., and Meyer, C.E. (1992). The Mount Edgecumbe tephra deposits, a marker horizon in southeastern Alaska near the Pleistocene-Holocene boundary. *Quaternary Research* 37, 183-202.

Mann, D.H. and Peteet, D.M. (1994). Extent and timing of the last glacial maximum in southwest Alaska. *Quaternary Research* 42, 136-148.

*Mann, D.H., Engstrom, F.B., and Bubier, J. (1994). Fire history in the Batelle Research Forest, Vermont. *Quaternary Research* 42, 206-215.

Peteet, D.M. and Mann, D.H. (1994). Late-glacial vegetation change on Kodiak Island, Alaska. *Ecoscience* 1, 255-267.

Mann, D.H. and Hamilton, T.D. (1995). Late Pleistocene and Holocene Paleoenvironments of the North Pacific Coast. *Quaternary Science Reviews* 14, 449-471.

- *Mann, D.H., Fastie, C.L., Rowland, E.L., and Bigelow, N.H. (1995). Spruce succession, disturbance, and geomorphology on the Tanana River floodplain, Alaska. *Ecoscience* 2, 184-199.
- Mann, D.H. and Crowell, A.L. (1996). A large earthquake occurring 700 to 800 years ago in Aialik Bay, southern coastal Alaska. *Canadian Journal of Earth Sciences* 33, 117-126.
- Mann, D.H., Sletten, R.S., and Reanier, R.E. (1996). Quaternary glaciations of the Rongbuk Valley, Tibet. *Journal of Quaternary Science* 11, 267-280.
- Crowell, A.L. and Mann, D.H. (1996). Human populations, sea level change, and the archaeological record of the Northern Gulf of Alaska coastline. *Arctic Anthropology* 33, 16-37.
- Irvine, G.V., Mann, D.H., and Short, J.W. (1999). Multi-year persistence of oil mousse on high energy beaches distant from the Exxon Valdez spill. *Marine Pollution Bulletin* 38, 572-584.
- Mann, D.H., Crowell, A.L., Hamilton, T.D., and Finney, B.P. (1999). Holocene geologic and climatic history around the Gulf of Alaska. *Arctic Anthropology* 35, 112-131.
- *Mann, D.H. and Plug, L.J. (1999). Vegetation and soil development at an upland taiga site, Alaska. *Ecoscience* 6, 272-285.
- *Höfle, C., Edwards, M.E., Hopkins, D.M., and Mann, D.H. (2000). The full-glacial environment of the northern Seward Peninsula, Alaska, reconstructed from the 21,500-year-old Kitluk paleosol. *Quaternary Research* 53, 143-153.
- Mann, D.H., Heiser, P.A., and Finney, B.P. (2002). Holocene history of the Great Kobuk Sand Dunes, Northwestern Alaska. *Quaternary Science Reviews* 21, 709-731
- Mann, D.H., Peteet, D.M., Reanier, R.E., and Kunz, M.L. (2002). Responses of an arctic landscape to Lateglacial and early Holocene climatic changes: the importance of moisture. *Quaternary Science Reviews* 21, 997-1021
- Mann, D.H., Reanier, R.E., Peteet, D.M., and Kunz, M.L. (2002). Environmental Change and Arctic Paleoindians. *Arctic Anthropology* 38, 119-138.
- Mann, D.H., Edwards, J., Reanier, R., Chase, J. (2003). Impacts of early Polynesian settlement on the soils and vegetation of Rapa Nui (Easter Island). In: J. Loret and J. Tanacredi (Eds.), "Easter Island: Scientific Exploration into the World's Environmental Problems in Microcosm." Kluwer Academic/Plenum Press, New York.
- Mann, D.H. (2003). On patterned ground. *Science* 299, 354-355 (*Perspectives* section)
- *Meltzer, D.J., Mann, D.H., and LaBelle, J.M. (2004). A Bison antiquus from Archuleta Creek, Folsom, New Mexico. *Current Research in the Pleistocene* 21, 107-109.

*Duffy, P.A., Walsh, J.E., Graham, J.M., Mann, D.H., Rupp, T. S. (2005). Impacts of large-scale atmospheric-ocean variability on Alaskan fire season severity. *Ecological Applications* 15, 1317–1330.

Irvine, G.V., Mann, D.H., Short, J.W. (2006). Persistence of ten-year old *Exxon Valdez* oil on Gulf of Alaska beaches: The importance of boulder armoring. *Marine Pollution Bulletin* 52, 1011-1022.

Short, J.W., Irvine, G.V., Mann, D.H., Maselko, J.M., Pella, J.J., Lindeberg, M.R., Payne, J.R., Driskell, W.B., and Rice, S.D. (2007). Slightly weathered *Exxon Valdez* oil persists in Gulf of Alaska beach sediments after 16 years. *Environmental Science and Technology* 41, 1245-1250. doi: 10.1021/es0620033

Mann, D.H. and Meltzer, D.J. (2007). Millennial-scale dynamics of valley fills over the past 12,000 ¹⁴C yr in northeastern New Mexico, USA. *Geological Society of America Bulletin* 119, 1433–1448; doi:10.1130/B26034.1

Mann, D.H. and Streveler, G.P. (2008). Post-glacial relative sea level, isostasy, and glacial history in Icy Strait, Southeast Alaska, USA. *Quaternary Research* 69, 201-216; [doi:10.1016/j.yqres.2007.12.005](https://doi.org/10.1016/j.yqres.2007.12.005)

Mann, D.H., Reanier, R.E., Beck, W., and Edwards, J. (2008). Drought, vegetation change, and human history on Rapa Nui (Isla de Pascua, Easter Island). *Quaternary Research* 69 (2008) 16–28

*Kurkowski, T.A., Mann, D.H., Rupp, T.S., and Verbyla, D.L. (2008). Relative Importance of Different Secondary Successional Pathways in the Alaskan Boreal Forest. *Canadian Journal of Forest Research*, *in press*

Irvine, G.V., Mann, D.H., Short, J.W. (2008). Persistence of slightly weathered *Exxon Valdez* oil under boulder armors on beaches distant from the 1989 spill. (*submitted*)

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