

## **JAELYN J. EBERLE**

Department of Geological Sciences and University of Colorado Museum of Natural History  
University of Colorado at Boulder

**Background:** Married to Mr. David Taylor. I have three sons, Nicholas (born Nov 1999), Quinlan (born Dec 2006), and William (born May 2009). I hold dual citizenship in Canada and the United States.

### **EDUCATION**

University of Wyoming, Laramie, Wyoming  
Ph.D. in Geology, May 1996; Jason A. Lillegraven, advisor  
University of Saskatchewan, Saskatoon, Saskatchewan, Canada  
B.Sc. Honors (With Distinction) in Paleobiology, May 1991

### **PROFESSIONAL EXPERIENCE**

University of Colorado at Boulder: *Associate Professor & Curator of Fossil Vertebrates*, Fall 2010 - Present  
University of Colorado at Boulder: *Assistant Professor & Curator of Fossil Vertebrates*, August 2002 – Spring 2010  
Canadian Museum of Nature, Ottawa, ON: *Research Scientist Level I*, April 2000 – July 2002  
Houston Museum of Natural Science, Houston, TX: *Curator of Paleontology*, 1998 – 1999  
Rice University, Department of Ecology and Evolutionary Biology, Houston, TX: *Postdoctoral Research Associate*, May 1997 – November 1998  
Rice University, Houston, TX: *Lecturer*, spring 1997 (human osteology), spring 1998 (seminar in evolutionary biology), and spring 1999 (geology)  
University of Wyoming, Department of Geology and Geophysics, Laramie, Wyoming: *Sabbatical Replacement*, spring 1996.  
University of Wyoming, Math and Sciences Initiative Project (MSIP): *Grade 12 Science Teacher*, summer 1995.

### **PALEONTOLOGICAL FIELD EXPERIENCE**

Late Cretaceous and Paleogene of the Hanna Basin, central Wyoming, 1991-1994  
Paleogene of the Canadian High Arctic, 9 field seasons; 1997 – 1999; 2001 – 2004; 2010; 2012; Ellesmere, Axel Heiberg, Devon, and Banks Islands (73 - 82° N. lat.).  
Latest Cretaceous and early Paleogene of the Denver Basin, Colorado (1999 – 2002; field trips in 2004-2008 associated with courses taught at CU)  
Paleogene of Colorado's Western Slope (2003 – 2006)  
Florissant Fossil Beds National Monument, central Colorado (2003 – 2005)  
Late Eocene – early Oligocene of Pawnee National Grasslands, northern Colorado (2007 – present)  
Eocene of Wyoming (2011)  
Paleogene of Alaska (2011)  
Eocene of northern British Columbia (2012)

### **PROFESSIONAL MEMBERSHIPS**

Society of Vertebrate Paleontology  
Geological Society of America  
Geological Association of Canada

PUBLICATIONS

Refereed Publications (\*denotes graduate student author)

Lloyd, K.\* and Eberle, J., *in review*, A late Eocene (Chadronian) mammalian fauna from the White River Formation in Kings Canyon, northern Colorado. *Rocky Mountain Geology* (submitted Mar 22, 2012; revised ms submitted June, 2012)

Schubert, B.A., Jahren, A.H., Eberle, J.J., Sternberg, L.S.L., and Eberth, D.A., 2012, A summertime rainy season in the Arctic forests of the Eocene. *Geology* 40: 523-526, doi:10.1130/G32856 (first published online 26 March 2012; featured in 'Editors' Choice' in *Science* 336: 393 (27 April 2012)

Eberle, Jaelyn J. and Greenwood, David R., 2012, Life at the top of the greenhouse Eocene world – A review of the Eocene flora and vertebrate fauna from Canada's High Arctic. *GSA Bulletin* 124: 3-23, doi: 10.1130/B30571.1 (first published online 9 December, 2011,)

Harrington, G.J., Eberle, J.J., Le Page, B., Dawson, M., Hickey, L.J., and Hutchison, J.H., 2011, Arctic plant diversity in the Early Eocene Greenhouse. *Proceedings of the Royal Society B* (Published online Nov. 9, 2011; doi: 10.1098/rspb.2011.1704)

Eberle, J.J., Fricke, H.C., Humphrey, J.D., Hackett, L., Newbrey, M.G., and Hutchison, J.H., 2010, Seasonal variability in Arctic temperatures during early Eocene time. *Earth and Planetary Science Letters* 296: 481-486.

Ballantyne, A.P., Greenwood, D.R., Sinninghe Damste, J.S., Csank, A.Z., Eberle, J.J., and Rybczynski, N., 2010, Significantly higher Arctic surface temperatures during the Pliocene indicated by multiple independent proxies. *Geology* 38: 603-606.

Olesiak, S.E.\*, Sponheimer, M., Eberle, J.J., Oyen, M.L., and Ferguson, V.L., 2010, Nanomechanical properties of bone: insights into diagenesis. *Palaeogeography, Palaeoclimatology, Palaeoecology* 289: 25-32.

Eberle, J., Fricke, H., and Humphrey, J., 2009, Lower Latitude Mammals as Year-Round Residents in Eocene Arctic forests. *Geology* 37 (6): 499-502.

Olesiak, S.E.\*, Sponheimer, M., Eberle, J.J., and Ferguson, V.L., 2009, The Contribution of Crystallinity to Tissue-level Properties in Modern and Fossilized Bone, in *Mechanics of Biological and Biomedical Materials*, edited by K. Katti, C. Hellmich, U.G.K. Wegst, R. Narayan (Material Research Society Proceedings Volume 1132E, Warrendale, PA, 2009), 1132-Z01-06.

Lloyd, K.J.\* and Eberle, J.J., 2008. A new talpid from the late Eocene of North America. *Acta Palaeontologica Polonica* 53 (3): 539-543.

- Lloyd, K.J.\*, Worley-Georg\*, M.P., and **Eberle, J.J.**, 2008, The Chadronian mammalian fauna of the Florissant Formation, Florissant Fossil Beds National Monument, Colorado. *Geological Society of America Special Paper* 435: 117-126.
- Chin, K., Bloch, J.D., Sweet, R.R., Tweet, J.S., **Eberle, J.J.**, Cumbaa, S.L., Witkowski, J., and Harwood, D.M., 2008, Life in a Temperate Polar Sea: A Unique Taphonomic Window on the Structure of a Late Cretaceous Arctic Marine Ecosystem. *Proceedings of the Royal Society B* 275: 2675-2685.
- Eberle, J.J.** and McKenna, M.C., 2007. The Indefatigable Mary Dawson: Arctic Pioneer: *Bulletin of Carnegie Museum of Natural History* 39: 7-17.
- Olesiak, S.E.\*, Oyen, M., Sponheimer, M., **Eberle, J.J.** and Ferguson, V.L., 2007, Ultrastructural mechanical and material characterization of fossilized bone, in *Mechanics of Biological and Bio-Inspired Materials*, edited by C. Viney, K. Katti, C. Hellmich, U. Wegst (Material Research Society Proceedings Volume 975E, Warrendale, PA, 2007), 0975-DD03-09.
- Eberle, J.J.**, 2006, Early Eocene brontotheriidae (Perissodactyla) from the Eureka Sound Group, Ellesmere Island, Canadian High Arctic – implications for brontothere origins and high-latitude dispersal: *Journal of Vertebrate Paleontology* 26 (2): 381-386.
- Worley-Georg, M.P.\* and **Eberle, J.J.**, 2006, New additions to the Chadronian mammalian Fauna, Florissant Formation, Florissant Fossil Beds National Monument, Colorado: *Journal of Vertebrate Paleontology* 26 (3): 685-696.
- Eberle, J.J.**, 2005, A new 'tapir' from Ellesmere Island, Arctic Canada - Implications for Northern High-latitude Palaeobiogeography and Tapir Palaeobiology: *Palaeogeography, Palaeoclimatology, Palaeoecology* 227 (4): 311-322.
- Cifelli, R.L., **Eberle, J.J.**, Lofgren, D.L., Lillegraven, J.A., and Clemens, W.A., Jr., 2004, Mammalian Biochronology of the Latest Cretaceous in North America, In Woodburne, M.O. (ed.) *Cenozoic Mammals of North America*, University of California Press, p. 21-42.
- Rose, K.D., **Eberle, J.J.**, and McKenna, M.C., 2004, *Arcticanodon dawsonae*, a primitive new palaeodont from the Lower Eocene of Ellesmere Island, Canadian High Arctic: *Canadian Journal of Earth Sciences* 41: 757-763.
- Eberle, J.J.**, 2003, Puercan mammalian systematics and biostratigraphy in the Denver Formation, Denver Basin, Colorado: *Rocky Mountain Geology* 38: 143-169.
- Eberle, J.J.**, and McKenna, M.C., 2002, Early Eocene Leptictida, Pantolestia, Creodonta, Carnivora, and Mesonychidae (Mammalia) from the Eureka Sound Group, Ellesmere Island, Nunavut: *Canadian Journal of Earth Sciences* 39: 899-910.
- Eberle, J.J.**, 1999, Bridging the transition between Didelphodonts and Taeniodonts: *Journal of Paleontology* 73: 936-944.
- Eberle, J.J.**, and Storer, J.E., 1999, Northernmost record of brontotheres, Axel Heiberg Island, Canada -- Implications for age of the Buchanan Lake Formation and brontothere paleobiology: *Journal of Paleontology* 73: 979-983.

Lillegraven, J.A., and **Eberle, J.J.**, 1999, Transitions in nonmarine Lanciaan through Puercan vertebrates in southern Wyoming: a mammalian celebration: *Journal of Paleontology* 73: 691-710.

Harrison, J. C., Mayr, U., McNeil, D. H., Sweet, A. R., McIntyre, D. J., **Eberle, J. J.**, Harington, C. R., Chalmers, J., Dam, G., and Hansen, H. N., 1999, Correlation of Cenozoic sequences of the Canadian Arctic region and Greenland; implications for the tectonic history of northern North America: *Bulletin of Canadian Petroleum Geology* 47: 223-254.

**Eberle, J. J.**, and Lillegraven, J. A., 1998, A new important record of earliest Cenozoic mammalian history: geologic setting, Multituberculata, and Peradectia: *Rocky Mountain Geology* 33: 3-47.

**Eberle, J. J.**, and Lillegraven, J. A., 1998, A new important record of earliest Cenozoic mammalian history: Eutheria and paleogeographic/biostratigraphic summaries: *Rocky Mountain Geology* 33: 49-117.

**Eberle, J. J.**, and Storer, J. E., 1995, *Herpetotherium valens* (Lambe), a didelphid marsupial from the Calf Creek local fauna (Chadronian), Saskatchewan: *Journal of Vertebrate Paleontology* 15: 785-794.

#### Non-refereed publications

**Eberle, J. J.**, 2008, Beginning of the Age of Mammals in the Hanna Basin, WY, 3 p. in K. Lloyd (ed.) *SVP First North American Summer Field Conference* – Hanna and Carbon Basins, south central Wyoming. (<http://www.vertpaleo.org/education/documents/HannaBasin-fullsummary.pdf>)

**Eberle, J. J.**, 2007, “Ellesmere Island Fossils.” *The Canadian Encyclopedia*. Historica Foundation, 2007. <http://www.thecanadianencyclopedia.com>

**Eberle, J. J.** and Marincovich, L., Jr., 2005, Fossils: Animal Species, In Nuttall, M. (ed.) *Encyclopedia of the Arctic*, Routledge, New York, p. 659-663.

**Eberle, J. J.**, 2001, Eocene mammals of the Eureka Sound Group, Canadian Arctic Archipelago – Notes on the Carnivora, Creodonta, and Mesonychia: *Canadian Palaeobiology*, Spring, 2001.

Wessman, F., and **Eberle, J. J.**, 2000, *Trilobites from the Fred Wessman Collection*, Houston Museum of Natural Science, 28 pp.

**Eberle, J. J.**, 1999, Hall of Paleontology, p. 12-19 in Weeks (ed.), *Houston Museum of Natural Science Guide*, Houston Museum of Natural Science.

#### Book Reviews

**Eberle, J. J.** and Eberle-Taylor, N., 2009, [Review of] Canadian Dinosaurs: A Wow Canada! Book, by Elin Kelsey. *Palaeontologia Electronica* 12 (1).

**Eberle, J. J.**, 2006, [Review of] Mammals from the Age of Dinosaurs: Origins, Evolution, and Structure, by Zofia Kielan-Jaworowska, Richard L. Cifelli, and Zhe-Xi Luo. *Journal of Paleontology* 80 (3): 601-602.

Museum Newsletter

**Eberle, J. J.**, 2008, A 'Deep Time' global warming laboratory in the Canadian High Arctic.' Museum Insights: Fall 2008 Newsletter of the University of Colorado Museum of Natural History ([http://cumuseum.colorado.edu/eberle\\_article\\_fall08.pdf](http://cumuseum.colorado.edu/eberle_article_fall08.pdf))

Published abstracts since arriving at CU (\*denotes graduate student author)

Karim, T.S., Culver, T., Halaka, J.S.H., **Eberle, J.** 2012. The University of Colorado Museum's Fossils in the Classroom Project. Society for the Preservation of Natural History Collections (SPNHC) 27th Annual Meeting. (Poster presentation)

**Eberle, J.J.**, and Dawson, M., 2011, Mammalian diversity in the Early Eocene High Arctic. Journal of Vertebrate Paleontology, v. 31 (supplement to no. 3) (selected for media release by SVP).

**Eberle, J.J.**, 2011, Mammalian diversity in an early Eocene, High Arctic swamp forest. Annual Meeting for the Canadian Society for Ecology and Evolution (CSEE; May 12-16, 2011, Banff, Alberta, CANADA)

Guy J. Harrington, **Jaelyn Eberle**, Ben le Page, Mary Dawson, Leo J Hickey, Howard Hutchison, 2011, Arctic plant diversity in the Early Eocene Greenhouse, Cretaceous - Palaeogene palaeoenvironments, tectonics and biostratigraphy of the Arctic and subarctic. University of Tromso, 29th-20th March 2011.

Schubert, Brian A., Jahren, A. Hope, **Eberle, Jaelyn J.**, Sternberg, Leonel S.L., Eberth, David A., and Sweet, Arthur R., 2011, Wet summers in the Eocene Arctic quantified from high-resolution Carbon isotope measurements across fossil tree-rings, GSA Abstracts with Programs, Abs. ID 195452.

Schubert, Brian A., Jahren, A. Hope, **Eberle, Jaelyn J.**, Sternberg, Leonel S.L., Ellsworth, Patricia, Eberth, David A., and Sweet, Arthur R., 2011, The Best Modern Analog for Eocene Arctic Forests is within Today's Korean Peninsula. *Eos. Trans. AGU*, 91, Fall Meeting Supplement, Abstract (Control ID 1190525)

**Eberle, J.J.**, Harrington, G.J., Fricke, H.C., Humphrey, J., Hackett, L., Newbrey, M., and Hutchison, J.H., 2010, Was the Eocene Arctic a source area for exotic plants and animals? *Eos. Trans. AGU*, Fall Meeting Supplement, Abstract B44B-06. (invited presentation)

\*Poltenovage, M., **Eberle, J.**, and Wilson, G., 2010, *PaleOasys*: A web-based application for high-resolution tracking, researching, and bidirectional sharing of paleobiological and geological data. GSA Abstracts with Programs, 42 (5).

**Eberle, J.J.**, Fricke, H.C., Humphrey, J.D., Hackett, L., Newbrey, M.G., and Hutchison, J.H., 2009, Seasonal variability in Arctic temperatures during early Eocene time. *Eos Trans. AGU*, 90, Fall Meeting Supplement, Abstract PP43B-1577.

Ballantyne, A.P., \*Csank, A.Z., Greenwood, D., Sinninghe Damste, J.S., Otto-Bliesner, B.L., White, J.W.C., **Eberle, J.J.**, Axford, Y., Miller, G.H., and Rybczynski, N., 2009, Warm Arctic terrestrial

- surface temperatures during the Pliocene: Exploring potential feedback mechanisms. *Eos Trans. AGU*, 90, Fall Meeting Supplement, Abstract PP43C-03.
- Eberle, J.J.**, Sponheimer, M., and Marchitto, T., 2009, Biogenic patterning of Sr and Ba in early Oligocene (Orellan) mammalian tooth enamel. *Journal of Vertebrate Paleontology*, v. 29 (supplement to no. 3).
- \*Schultz, W., and **Eberle, J.J.**, 2009, Body size change in *Leptomeryx* and Rhinocerotinae (*Subhyracodon* and *Trigonias*) across the Eocene – Oligocene (Chadronian-Orellan) boundary. *Journal of Vertebrate Paleontology*, v. 29 (supplement to no. 3).
- Ballantyne, A.P., **Eberle, J.J.**, White, J.W.C., Rybczynski, N., Greenwood, D., and Sinninghe Damsté, J.S., 2008, Increased sensitivity of Arctic climate to atmospheric CO<sub>2</sub> during the Pliocene. *Eos Trans. AGU*, 89 (53), Fall Meeting Supplement, Abstract U13B-0052.
- Ballantyne, A., **Eberle, J.J.**, White, J.W.C., Rybczynski, N., and Greenwood, D., 2008, The sensitivity of Arctic paleoclimate to atmospheric CO<sub>2</sub> and water vapor: Inferences from a Pliocene peat deposit on Ellesmere Island. *38<sup>th</sup> International Arctic Workshop, Program and Abstracts 2008*. Institute of Arctic and Alpine Research (INSTAAR), University of Colorado at Boulder, p. 27.
- Harrington, G., **Eberle, J.**, Le Page, B., Dawson, M., and Hutchison, J. 2008. Implications of Late Palaeocene–Early Eocene climate changes on North American vegetation: from the Arctic to the Gulf Coast. *Terra Nostra 2008/2 International Organization of Paleobotany Conference (IPC-XII/IOPC-XIII) Abstract volume*, p. 106. ISSN 0946-8978.
- \*Olesiak, S., Sponheimer, M., **Eberle, J.**, Oyen, M., and Ferguson, F., 2008, Nanomechanical property dependence on crystallinity in modern and fossilized bone tissues. *2008 Society of Engineering Science annual technical meeting*, October 12–15 2008, University of Illinois at Urbana–Champaign.
- \*Padilla, A., **Eberle, J.**, and Cumbaa, S., 2008, Description and Paleobiology of an Eocene shark fauna from Banks Island, Arctic Canada. *Journal of Vertebrate Paleontology*, v. 28 (supplement to no. 3).
- Eberle, J.**, Fricke, H., Humphrey, J., and \*Hackett, L., 2007, Ellesmere Island as an Arctic counterpoint to the mid-latitudes: isotopic similarities, differences and their relevance to paleoenvironmental research. *Geological Society of America Abstracts with Programs*, v. 39, no. 6.
- Colbert, M. and **Eberle, J.**, 2007, The skull of *Thuliadanta*, a surprisingly derived tapiroid from the Early Eocene (Wasatchian) of the Canadian High Arctic, as revealed by high-resolution CT scanning. *Journal of Vertebrate Paleontology*, v. 27 (supplement to no. 3).
- Eberle, J.**, Humphrey, J., and Hackett, L., 2006, Oxygen isotope estimates of Mean Annual Temperature for an early Eocene, terrestrial environment in the Canadian High Arctic. *Geological Society of America Abstracts with Programs*, v. 38, no. 7.
- \*Lloyd, K. and **Eberle, J. J.**, 2006, The late Eocene mammalian fauna of the Florissant Formation, central Colorado, including the discovery of a new insectivoran. *Journal of Vertebrate Paleontology*, v. 26 (supplement to no. 3).

- Eberle, J.J.**, 2005, Early Eocene Brontotheriidae (Perissodactyla) from the Eureka Sound Group, Ellesmere Island, Canadian High Arctic – Implications for brontothere origins and high-latitude dispersal. *Journal of Vertebrate Paleontology*, v. 25 (supplement to no. 3).
- \*Burger, B. and **Eberle, J.J.**, 2005, Mammalian faunal change in the Paleocene-Eocene boundary spanning Debeque Formation, northern Piceance Creek Basin, western Colorado: Preliminary study of fossil ungulates. *Journal of Vertebrate Paleontology*, v. 25 (supplement to no. 3).
- \*Hackett, L., Humphrey, J., and **Eberle, J.J.**, 2005, Oxygen isotope analysis of biogenic phosphate: An application to the Early Eocene. *Geological Society of America Annual Meeting Abstracts with Program*, v. 37, no. 7.
- Chin, K., Bloch, J.D., Sweet, A.R., **Eberle, J.J.**, Cumbaa, S.L. and \*Tweet, J.S., 2005, Patterns of energy flow in a Late Cretaceous high Arctic marine community from Devon Island, Nunavut. Abstract volume, *North American Paleontological Convention*, June 19-26, 2005, Dalhousie University, Halifax, Nova Scotia.
- Eberle, J.J.**, 2004, An Arctic ‘tapir’ and implications for northern high-latitude paleobiogeography: *Journal of Vertebrate Paleontology*, v. 24 (supplement to no. 3).
- Bloch, J.D., Chin, K., Sweet, A.R., **Eberle, J.J.**, and Cumbaa, S.L., 2004, Terminal Late Cretaceous regression on the southeast margin of the Sverdrup Basin: shale and bentonite petrology of the upper Kanguk Formation, Devon Island, Nunavut. *Geological Society of America Annual Meeting Abstracts with Program*, v. 36.
- Chin, K., Bloch, J.D., \*Tweet, J.S., **Eberle, J.J.**, and Cumbaa, S.L., 2004, Benthic-pelagic coupling in the Upper Cretaceous High Arctic; evidence from a suite of unusual polar coprolites. *Geological Society of America Annual Meeting Abstracts with Program*, v. 36.
- Eberle, J.J.**, Dawson, M., Lee, C., Riediger, C., and Hutchison, J.H., 2003, Towards a refined vertebrate biostratigraphy for Eocene strata of the Eureka Sound Group, Canadian High Arctic: *Journal of Vertebrate Paleontology*, v. 23 (supplement to no. 3), p. 47A.
- Eberle, J.J.**, Johnson, K., Reynolds, R., Hicks, J., and Nichols, D., 2002, New discoveries of Puercan mammals in the Denver Basin, Colorado: Revisions to local Puercan mammalian biostratigraphy that incorporate paleomagnetic and palynological zonations: *Journal of Vertebrate Paleontology*, v. 22 (supplement to no. 3), p. 50A.
- Nichols, D.J., Fleming, R.F., Barclay, R.S., **Eberle, J.J.**, Betterton, W.J., Hicks, J.F., and Johnson, K. R., 2002, Cretaceous-Tertiary boundary in the Denver Basin, Colorado and the most complete K-T boundary section known in nonmarine rocks: *Programme & Abstracts, Joint Meeting of AASP-BMS-NAMS*, 11<sup>th</sup>-13<sup>th</sup> September 2002, University College, London (unpaginated).

**Invited Colloquia**

Western Interior Paleontological Society (WIPS), Denver, CO (Sept 2012)

Brandon University Science Seminar Series, Brandon, Manitoba, Canada, Jan 2012  
Café Scientifique (Colorado Springs Chapter), April 2011  
Academy for Lifelong Learning (Denver), Mar 2011  
Café Scientifique (Denver Chapter), Nov 2010  
University of Colorado, Dept. of Geological Sciences, fall 2009  
Canadian Society of Petroleum Geologists (CSPG), keynote speaker, Jan 8, 2009 (~700 attendees)  
Geological Survey of Canada (GSC), McConnell Club speaker, Calgary, AB Jan 9, 2009  
University of Wyoming, Department of Geology and Geophysics, Sept 2008  
Colorado Scientific Society, Sept 2008  
Tate Museum Symposium, invited speaker, June 2008  
Western Interior Paleontological Society (WIPS) Founders Symposium, spring 2005  
Carnegie Museum of Natural History, All the World's a Stage for Evolution Symposium in Honor of Mary Dawson, fall 2005  
University of Colorado, Dept. of Geological Sciences, fall 2005  
University of Northern Colorado (UNC), Earth Sciences, fall 2005

**Funded Grants (since arrival at CU)**

National Science Foundation, Arctic Natural Sciences Program  
“Collaborative Research: TransArctic Paleoclimate of the Eocene”  
9/2008 – 8/2011, \$313,907; Principal Investigator.\*  
\*one of four proposals in collaborative project, lead PI A. Jahren, total budget ~1M.

National Science Foundation, Arctic Natural Sciences Program  
“Paleoclimate and Paleocology in High Latitude, Terrestrial Vertebrate Communities from the Early-Middle Eocene of Ellesmere Island, Nunavut, Arctic Canada”  
3/2005 – 2/2007, \$100,000; Principal Investigator (co-PI John Humphrey, Colorado School of Mines).

National Science Foundation, Arctic Natural Sciences Program  
“Collaborative Research: Paleoenvironment and Paleocology of a Late Cretaceous, High-Latitude Locality on Devon Island, Nunavut, Canada”  
6/2003 – 5/2006; \$235,689; Co-PI; PI is Karen Chin (in collaboration with J.D. Bloch, University of New Mexico)

Graduate Assistance in Areas of National Need (GAANN)  
2003 – 2008, \$579,090; Co-PI; Lead PIs are Anne Sheehan and Lang Farmer. (*Educational Grant*)

National Geographic Society  
“Search for Eocene vertebrates in the Canadian High Arctic”  
7/2003 – 12/2004; \$29,589; Principal Investigator.

USDA National Forest Service  
“Survey and Salvage of Fossil Resources, Pawnee National Grassland” continuation....  
6/2008 – 12/2009, \$4,521.

USDA National Forest Service  
“Survey and Salvage of Fossil Resources, Pawnee National Grassland”  
8/2006 – 5/2007, \$3,305.



**University of Colorado Grants**

CU Boulder Outreach Committee, for project entitled ‘University of Colorado Museum of Natural History Fossils in the Classroom Project,’ Summer, 2011 – Spring, 2012, \$7,965., Co-PIs are Museum Personnel Jim Hakala, Toni Culver, and Talia Karim

CU Boulder Outreach Committee, for continuation of program entitled ‘Girls At the Museum Exploring Science’ (GAMES), 2007-2008 AY, \$4,998. Co-PI (PI Cathy Regan).  
Funded after-school workshops for 4 schools per semester. (*K-12 Education and Outreach Grant*)

CU Council on Research and Creative Work  
Grant-In-Aid; ‘Search for Eocene fossil vertebrates in Canada’s western Arctic’  
4/2004 – 4/2005; \$6,590

**Grants and Fellowships received prior to arrival at CU**

National Geographic Society  
‘Paleogene fossil vertebrates from the Canadian High Arctic’  
5/2002 – 12/2002; \$23,250

Polar Continental Shelf Project (PCSP), Natural Resources Canada  
‘Paleogene vertebrates in Canada’s High Arctic’  
summer 2002, ~\$15,000 in helicopter and twin otter support

Canadian Museum of Nature Research Advisory Committee (RAC) grant  
‘Faunal and Floral Evolution in the Paleogene High Arctic’  
2001-02, \$17,000.CA

Canadian Museum of Nature Research Advisory Committee (RAC) grant  
‘Evolution of plants, animals, and environments across the K-T Boundary in Denver Basin, Colorado’  
2001-02, \$12,237.CA

Polar Continental Shelf Project, Natural Resources Canada  
‘Search for fossil vertebrates on Ellesmere Island, Canadian Arctic Archipelago’  
summer 2001, ~\$15,000 in helicopter and twin otter support

Polar Continental Shelf Project, Natural Resources Canada  
‘Search for fossil vertebrates on Devon and eastern Ellesmere Islands, Canadian Arctic Archipelago’  
summer 1998, ~\$15,000 in helicopter and twin otter support (co-PI John Storer)

Natural Sciences and Engineering Research Council of Canada (NSERC) Postdoctoral Fellowship  
‘Canadian Arctic paleogeography, paleoclimate, and vertebrate evolution’  
1997 – 1999 (18 mos), ~\$50,000.CA

**Awards and Honors**

2008 Best Paper Award, Colorado Scientific Society (for Sept 2008 lecture entitled ‘*Paleontology and Paleoclimate in an Early Eocene, High Arctic Swamp Forest*’)

1997 – 1999 Natural Sciences and Engineering Research Council of Canada (NSERC), Postdoctoral Fellowship

1996 Romer Prize, best student paper, Society of Vertebrate Paleontology  
1996 Best Student Presentation in Paleontology, Rocky Mountain Section, Geological Society of America  
1995 Student Paleontological Research Award, Paleontological Society  
1993 Outstanding Student Research Award, Geological Society of America

## **TEACHING**

### **CU Courses taught**

Paleobiology, GEOL 3410, fall 2010  
Historical Geology; GEOL 1020, spring 2003; spring 2005; spring 2009\*  
Vertebrate Paleontology; GEOL 4744/5744, spring 2004, spring 2006, spring 2008, spring 2010  
Paleontology Practicum; MUSM 5914, fall 2004, fall 2006\*, fall 2010, fall 2012

\*Note: on Family Leave in Spring 2007 and Fall 2009. Tenure clock stopped Fall 2006–Spring 2007 AY.

### **Summer Short Course**

Florissant Fossil Beds National Monument, short course on fossils of Florissant, Presentation and field trip to fossil vertebrate locality within the monument (July 29, 2007)

### **Postdoctoral Researcher Supervised**

Ashley Ballantyne, Ph.D., 'Reconstructing the Climate and Ecology of Pliocene Arctic Ecosystems' (NSF postdoctoral fellowship ANT #0631309 for \$154,000, August 2007–August 2009)

### **Graduate Students Supervised**

Marie P. Worley, M.S., Museum & Field Studies, graduated fall 2004  
Thesis: New Additions to the Chadronian Mammalian Fauna from the Florissant Formation, Florissant Fossil Beds National Monument, Florissant, Colorado

Karen Lloyd, M.S., Museum & Field Studies, graduated summer 2007  
Thesis: An investigation and comparison of latest Eocene (Chadronian) mammalian faunas found in intermountane basins and plains of Colorado.

Aspen Padilla, M.S., Museum & Field Studies, graduated summer 2008  
Thesis: Faunal description and paleobiology of Eocene sharks from Banks Island in the Canadian Arctic.

Benjamin J. Burger, Ph.D., Geology, graduated spring 2009  
Thesis topic: Stratigraphy and vertebrate faunal change in the Paleocene-Eocene boundary spanning Debeque Formation, northern Piceance Creek Basin, western Colorado.

Wendy Schultz, M.S., Museum & Field Studies, graduated fall 2009  
Thesis topic: Body size evolution in *Leptomeryx* and Rhinocerotinae (*Subhyracodon* and *Trigonias*) across the Eocene-Oligocene (Chadronian-Orellan) Boundary.

Alex Dutchak, Ph.D., Geology, graduated fall 2010  
Thesis topic: Climatic and mammalian faunal change across the Wasatchian–Bridgerian Boundary, Uinta Basin, Colorado-Utah.

John Van Regenmorter, M.S., Geology, graduated spring 2011

Project topic: A detailed stratigraphic analysis of the species of *Notharctus* throughout the 'Bridger B,' Bridger Basin, southwestern Wyoming.

Michael Poltenovage, M.S., Museum & Field Studies, graduated fall 2011

MFS Project topic: Colorado Museum of Natural History PaleOasys Collections Management System User Manual.

Deborah Wagner, M.S., Museum & Field Studies, *in progress* (arrived fall 2010)

**Professional Certificate Student Supervised**

Autumn Walker, Museum & Field Studies (MFS) Professional Certificate awarded spring 2008

**Graduate Student Committees**

*PhD Committees*

Sara Olesiak, Engineering (2011)

Laura Wilson, Geology (2012)

*Masters Committees*

Sophia Sims Newbury, Masters Student, Geological Sciences (2010)

Nicole Garrett-Osum, Anthropology (2007)

Quentin German, Geology (2006)

Logan Hackett, Geology (Colorado School of Mines, 2005)

Susan Riggins, Geology (2003)

*Undergraduate Honors Thesis Committees*

Elise Toyoko Nishikawa, Ecology and Evolutionary Biology (2011)

Caitlin McGeever, Ecology and Evolutionary Biology (2011-12)

Shannon Clow, Ecology and Evolutionary Biology (2005)

Kimberley Griffith, Anthropology (2004)

Jennifer Lintz, Ecology and Evolutionary Biology (2004)

*Undergraduate UROP project:*

Daniel Griffiths, Geology, UROP Assistantship (\$800. for 2010/2011 AY) for work in the UCM fossil vertebrate collections

**Teaching and Professional Workshops Attended**

CU Women Succeeding Symposium, attended workshops on negotiation, addressing bullying in the workplace, and building a respectful working and learning environment (Feb. 24, 2012).

Theory and Practice of Mediation, April 4 – 8, 2011 (40 hours of training), Mares-Dixon & Associates

Mountain-Plains Museum Association (MPMA) interpretive writing workshop taught by Alan Leftridge, Helena, MT (Oct 17, 2011).

LEAP presentation by Al Wengerd and Will Dewese (Office of Student Conduct) entitled 'Managing Disruptive Students in the Classroom' (April 14, 2011)

LEAP workshop 'We have to Talk: Effectively Managing Difficult Conversation' Oct 2010

NOLS Wilderness First Aid Training (May 16-17, 2010), in preparation for Arctic field expedition

FTEP Learning Assessment Institute (Jan 6, Jan 7, and May 13, 2010)

LEAP presentation entitled 'Bullying Behavior: A Session for Faculty,' Nov 17, 2009  
SEI (Science Education Initiative) Historical Geology workshops (June 5-7, 2007; Aug 3-5, 2009)  
CU Learn Workshops (Jan 2008, 2009)  
LEAP (Leadership Education for Advancement and Promotion) book club; 2004 – 2006  
LEAP presentation 'Women, Incivility, and Power' by Melinda Barlow (Film Studies), Oct 2006  
FTEP workshop 'Getting Students to Talk' run by Marty Bickman (English Dept., CU), Sept 2006  
LEAP workshop entitled 'Running Effective Meetings,' Nov 2005  
FTEP (Faculty Teaching Excellence Program) CLIP and Videotape Consultation, spring 2005  
FTEP workshop entitled 'Performance in a Nutshell,' Jan 2003  
LEAP Introductory Leadership Workshop for new faculty; Jan 2003  
FTEP New Faculty Program; attended several seminars organized by C. Koval; 2002-2003

## **CURATION**

### **Ongoing Curatorial Responsibilities**

Oversee the use, conservation, and growth of the UCM Fossil Vertebrate Collection (comprised of ~80,000 catalogued specimens in research and teaching collections and ~4,700 casts)  
Supervision (with curator K. Chin) of collections manager Toni Culver  
Supervision (with T. Culver) of Museum and Field Studies graduate assistants, work-study students, and volunteers on collections-based projects (e.g., cataloging, fossil preparation, etc.)  
Annually, we process 20 – 40 loans, 20 – 100 accessions, handle 150 – 170 inquiries, and assist ~80 visitors in the collections  
Establish and maintain repository agreements with state and federal agencies; annual reports to BLM, State of Colorado, and USDA Forest Service

### **Major Projects in Fossil Vertebrate Collection since 2002**

Collections Reorganization (2004 – 2006)  
Collections Inventory (in progress)  
Database transition from Access to PaleOasys (estimated completion 2011)  
Establishment of 5-year MOU with USDA Forest Service for field collecting in Pawnee and Oglala National Grasslands (2005 – 2010); associated cost-share agreements (2006 – 2010)

### **Museum Exhibits**

Curator of ANWR photographic exhibit (2004)  
Collaboration with other curators on content and text for Object Conversations exhibit (2005)  
Collaboration with other curators and exhibits personnel on Paleontology Hall redesign and renovation, including providing content and specimens as well as writing and reviewing script (2005–2006)  
Paleontology Hall Task Force – collaboration with exhibits personnel and geology colleagues on computer interactive focusing on deep time, fossils and stratigraphy (fall 2006 – present)  
One of six CU faculty featured in Evolution: Here and Now exhibit (2008 – 2009) – provided content, specimens, and reviewed text.  
Provide fossil specimens and content for BioLounge (2008 – present)

## **SERVICE**

### **University Service**

*University of Colorado (System wide)*

*2011/2012*

Member of the Faculty Senate Committee on Faculty Privilege and Tenure (Nov 2011 - Present)  
Panel Member for workshop entitled 'Building a respectful working and learning environment'  
for 10<sup>th</sup> Annual CU Women Succeeding Symposium (Feb. 24, 2012, Boulder, CO)

*CU-Boulder Campus*

*2010/2011*

LEAP Faculty Mentor to Dr. Joanna Arch, Asst. Professor in the Dept. of Psychology and  
Neuroscience at CU-Boulder  
Co-led (with Mary Kraus, Geological Sciences) a time management presentation for LEAP  
Introductory Leadership Workshop (Jan 4, 2011).

*2011/2012*

Facilitator for the Work-life balance BFA Round Table Discussion organized by the BFA  
Diversity Committee as part of the 2011 Diversity Summit (Nov. 8, 2011)  
Member of the CU-Boulder Outreach Committee (Spring 2012 - Present)  
LEAP Faculty Mentor to Dr. Joanna Arch, Asst. Professor in Dept. of Psychology and  
Neuroscience at CU-Boulder

*Department Committee Assignments*

*2002/2003*

Museum Informatics committee, Museum Collections Committee

*2003/2004*

Chair of Search Committee for Paleontology Collections Manager, Chair of Museum Student  
Awards Committee, Museum Public Programs Committee, Museum Collections Committee,  
Museum Informatics Committee, Geology Graduate Program PRP Committee, Geology GAANN  
Committee

*2004/2005*

Geology Executive Committee, Geology GAANN Committee, Museum and Field Studies  
Curriculum Committee (fall, 2004), Paleontology Section Point Person, Museum Chin  
Comprehensive Review Committee, Museum ANWR Exhibit Task Force

*2005/2006*

Geology GAANN Committee (Chair – November onwards), Museum and Field Studies Projects  
Committee

*2006/2007*

Geology GAANN Committee (Dec 2005 – Dec 2006); Museum and Field Studies Projects  
Committee and Paleontology Hall Task Force

*2007/2008*

Geology GAANN Committee; Paleontology Section Point Person, Paleontology Hall Task force

*2008/2009*

Geology Graduate Admissions Committee; Geology Graduate Student Awards Committee (for Shell fellowships); Museum Faculty Evaluations Committee; Museum Search Committee for Curator of Anthropology; Museum Paleontology Hall Task Force

*2009/2010*

Geology Graduate Admissions Committee; Museum Faculty Evaluations Committee

*2010/2011*

Geology Graduate Admissions Committee; member of Search Committee for Botany/Herbarium Collections Manager

*Miscellaneous University Service in Education/Outreach*

Helped host UCM Family Days (2004–2010)

Presentations to Girls And the Museum Exploring Science (GAMES) Program (5/2004; several presentations in fall 2007–spring 2010)

Represented UCM at Association for Women Geoscientists' Rocks and Roles Program at Dinosaur Ridge (2004)

**Community Service (since 2002)**

*Public Lectures*

- University of Colorado Museum of Natural History (UCM) Centennial lecture series, 10/2002
- Iqaluit Visitor Centre, Nunavut Territory, 6/2003
- Explorer's Club (Rocky Mountain Chapter), 11/2003
- University Women's Club (Boulder Chapter), 12/2003
- Opening Lecture for CU Museum's ANWR Photographic Exhibit, 9/2004
- Presentation at scientist roundtable for 'Evolution:Here and Now' UCM exhibit 10/2008
- Presentation at Nunatta Sunakkutaangit Museum in Iqaluit, Nunavut, 5/29/2008
- Presentation in Smithers, B.C. (June 2012) entitled 'Ancient mammals in a 52-million-year-old Arctic rainforest'; hosted by B.C. Parks and the Bulkley Valley Museum

*K-12 Education*

- GAMES (Girls At the Museum Exploring Science) –after-school presentations and tours of collections to 4<sup>th</sup>-5<sup>th</sup> graders from LaFayette and University Hill Elementary (Spring 2012)
- Five presentations to 6<sup>th</sup> graders (~150 students plus teachers) at Aspen Creek K-8 on Canada and Arctic paleontology (Dec., 2011)
- Faculty PI (co-PIs James Hakala, Toni Culver, and Talia Karim) on Museum outreach project entitled 'University of Colorado Museum of Natural History Fossils in the Classroom Project.' We designed fossil kits, activities, and a poster distributed to 26 elementary schools, reaching ~1,521 4<sup>th</sup> graders in five school districts in Colorado (Summer, 2011 – Spring, 2012)
- 10 presentations on Arctic paleontology in five elementary schools in the Inuit communities of Pangnirtung, Apex, and Iqaluit, Nunavut, Canada, May 2008
- GAMES (Girls At the Museum Exploring Science), worked with Cathy Regan (Education Coordinator, CU Museum) on after-school workshops for 4 schools/semester, Fall 2007– Spring 2008

- Paleontology presentation and collections tour for middle school teachers participating in CIRES-sponsored Earth Science course, Northeast Front Range Math/Science Partnership (MSP), 7/2006
- Scientific Consultant on children's book "Prehistorical Actual Size" by Steve Jenkins, 3/2005
- Presentation on Dinosaurs of Denver at Pennock K-8 school, Brighton, CO, 1/2005
- Contributor to "Geoscape Nunavut" poster produced by S. Douma et al. (Geological Survey of Canada) to be distributed to Canadian elementary schools, spring 2005
- Several fossil presentations for University Hill Elementary School, Boulder, CO (2005–present)
- Presentations on dinosaurs and ancient mammals of the Arctic at three elementary schools in Iqaluit, Nunavut (Baffin Island), Canada, May, 2002.

*TV/Film Documentaries*

- One of 4 female faculty highlighted in 'It Has Not Been Easy,' a film documentary that looks at the work/life balance dilemma facing women faculty today, by Cecilia Pang (CU Professor, Film Studies) – filmed 12/2007 and 1/2008
- Denver Basin research highlighted in Discovery Channel documentary entitled 'Impact'; filming took place May 4, 2008 at South Table Mountain near Golden, CO.
- Interviewed and filmed for 'We Are SVP' video about Society of Vertebrate Paleontology (2007)
- Interviewed and filmed in Hanna Basin, WY by NHK Enterprises (Producer Kazuki Ueda) for K-T boundary film series that will air on Japanese TV and subsequently National Geographic in 2010 (film dates: Aug 8–12, 2008)

**Professional Service**

*Service to Professional Organizations and Institutions*

Society of Vertebrate Paleontology, Moderator for Technical Session at Annual SVP Meeting (Sept 2009; Nov 2011)

Society of Vertebrate Paleontology 1<sup>st</sup> North American Summer Field Conference, Co-leader (with J. Lillegraven, P. Higgins, W. Clemens, and M. Clementz), Hanna Basin, WY (August 4-8, 2008)

Member, Scientific Advisory Board for Garden Park Paleontology Society (Dino Depot, Cañon City, CO; Spring 2008 – present)

Society of Vertebrate Paleontology, Executive Committee, Member-at-large (Nov 2004 – Oct 2007)

Associate Editor for the journal *Palaios* (April 2006 – April 2008)

Participant in NSF-sponsored Future Research Directions in Paleontology (FRDP) workshop in Washington D.C. (spring 2006)

Society of Vertebrate Paleontology, Chair, Membership Committee (2000-2004)

Society of Vertebrate Paleontology, Romer Prize Committee (2002 – 2009)

Member, Host Committee for 2004 Annual Meeting of the Society of Vertebrate Paleontology

Moderator, Technical Session XVI at Annual SVP Meeting (2004)

Co-organizer of symposium entitled High Latitude Vertebrate Evolution, Paleoclimate, and Paleogeography, 2003 Annual Meeting of the Society of Vertebrate Paleontology (SVP)

Research Associate, Denver Museum of Nature & Science (1999 – present)

*Service Award*

For Outstanding Leadership and Dedication to the Society of Vertebrate Paleontology (received Oct 20, 2007; SVP Annual Meeting, Austin, TX)

*Scientific Advising for museums and institutions other than UCM*

*Florissant Fossil Beds National Monument*, scientific advisor for exhibit that features fossil mammals from Florissant (I provided content, images, and advice on interactives to FLFO Paleontologist Herbert Meyer in Spring, 2012)

*Royal Tyrrell Museum*, Women in Palaeontology photographic exhibit (opened fall 2011). I was one of several paleontologists featured in the exhibit.

*Canadian Museum of Nature*, scientific advisor for the fossil mammal component of the new fossil gallery that opened in fall 2006; consultant on scientific content for video on the Eocene Arctic fauna shown with Museum's Extreme Mammals exhibit; posted on YouTube (spring, 2011)

*The Wildlife Experience* (TWE), scientific advising and images provided on Arctic flora, July 2008

*American Museum of Natural History*, scientific advisor for AMNH traveling exhibit entitled 'Extreme Mammals' (opened May 2009) featuring Eocene mammals of the High Arctic.

*Nunavut Government, Dept. of Culture, Language, Elders and Youth (CLEY)*: Advising on content for paleontology locality forms and fossil catalog for the Nunavut Government's Heritage Collections Administration Officer (Jessica Kotierk) and Chief Archaeologist Julie Ross.

*Manuscripts and Grant Proposals Reviewed (since arrival at CU)*

Reviewed 20+ manuscripts for peer-reviewed journals (including *Geology*, *Journal of Vertebrate Paleontology*, *Palaeontologia Electronica*, *Canadian Journal of Earth Sciences*, *PaleoBios*, *Palaeontographica Abt. A*, and *Courier Forschungsinstitut Senckenberg*) and three books (*Mammals from the Age of Dinosaurs*; 630 p.; *Localities, distribution and stratigraphical context of the Late Devonian tetrapods of East Greenland*; and children's book entitled 'Canadian Dinosaurs').

Reviewed 15 grant proposals (8 NSF; 3 NGS; 1 Wilderness Research Fund; and 3 Canadian Museum of Nature Research Activity Proposals)