

Melissa A. Barton
Master of Science Candidate
Museum and Field Studies, 265 UCB
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EDUCATION

University of Colorado at Boulder, Boulder, CO

M.S. student in Museum and Field Studies; Dena M. Smith, Advisor
Thesis (in progress): Eocene-Oligocene climate change: impact on terrestrial floral assemblages from the Rocky Mountains

Colorado College, Colorado Springs, CO

B.A. in Geology, 2006; Henry C. Fricke, Advisor
Project: Mapping topographic relief and elevation of the central Rocky Mountain region during the latest Eocene using stable isotope data from mammalian tooth enamel

RESEARCH AND PROFESSIONAL INTERESTS

- Eocene-Oligocene cooling and effect on paleoecology
- Paleoecology of high-latitude Tertiary floras
- Taphonomy of lacustrine deposits
- Collections management methods and philosophy
- Digital media and data projects in museums
- Museum public relations and outreach

PUBLISHED ABSTRACTS

Barton, M.A., and Stucky, R.K. (2007) Diversity of mammalian paleoecological assemblages in the early Oligocene Scenic Member of the Brule Formation, White River Group, Badlands National Park, South Dakota. *Journal of Vertebrate Paleontology*, 37 (supplement to no. 3), 44A.

Barton, M.A., and Fricke, H.C. (2006) Mapping topographic relief and elevation of the central Rocky Mountain region during the latest Eocene using stable isotope data from mammalian tooth enamel. *Geological Society of America Abstracts with Programs*, 38, 202.

Barton, M.A.; Frakes, B.; Meyer, H.W. (2006) Using a relational geodatabase to manage paleontological resources at Florissant Fossil Beds National Monument. *New Mexico Museum of Natural History & Science Bulletin* 34, 7.

HONORS AND AWARDS

Estwing Outstanding Senior Geologist Award, May 2006

"...for academic achievement and overall contribution to the geology department."

GRANTS

- **Walker Van Riper Award**, 2008
- **Charles Schuchert and Carl O. Dunbar Grant-in-Aid**, Yale Peabody Museum, 2008
- **Venture Grant**, Colorado College, 2005

MUSEUM AND EDUCATION EXPERIENCE

Invertebrate Paleontology and Paleobotany Graduate Assistant, September 2007-November 2008

Dr. Dena M. Smith, Paleontology Section, University of Colorado Museum of Natural History

- Assist in inventory, curation, and loan processing of fossil invertebrates and plants.
- Invertebrate Paleontology website management.
- Photography of invertebrate type specimens for web database and research use.
- Development of online Florissant specimen database.

Museum Technician, May 2007-February 2008 (full-time 05/2007-08/2007, part-time to 02/2008)

Museum Aide, September 2005-September 2006 (part-time)

Paleontology Intern, May 2005-August 2005 (full-time)

Dr. Herbert W. Meyer, Florissant Fossil Beds National Monument

- Assisted in selecting specimens and photographs for new exhibits.
- Managed 2007 exhibit disassembly, documentation, and return of specimens to Waynesburg College.
- Accessioned and cataloged herbarium, fossil, geological, and archival materials into ANCS+ collections management database.
- Handled loan and donation paperwork and packing.
- Assisted in planning and running T.D.A. Cockerell Centennial celebrations June 9-10, 2006, including co-leading a field trip to some of Cockerell's collection sites and writing a site bulletin about Cockerell's 1906-1908 expeditions to Florissant.
- Assisted researchers with fieldwork and collection of petrified wood, diatom, and fossil mammals from the Florissant Formation.
- Assisted in 2006 and 2007 summer intern training.
- Designed and maintained several databases, including data clean-up and reconciliation.
- Managed annual inventory and other reporting requirements for 2005-2007.
- Edited and fact-checked online high school/college curriculum unit and online museum for park.

Mentor for Teaching, Integrating, and Exploring Science (T.I.E.S.), November 2000-May 2002

Maureen Daschel, Chemistry Department, St. Mary's Academy

- Organized and led science activities for fifth grade girls, including building terrariums and etching glass.
- Acted as an individual mentor for two fifth graders, one per year of program.

RESEARCH EXPERIENCE

Paleobotany Research Assistant, September 2008-present

Dr. Dena M. Smith, University of Colorado Museum of Natural History

- Conduct research on taphonomy, paleoecology, and paleoclimate of Eocene-Oligocene floras of central Colorado.

Paleoecology and Evolution Volunteer, January 2007-present

Paleoecology and Evolution Curatorial Intern, June 2008-present

Dr. Richard K. Stucky, Denver Museum of Nature & Science

- Used statistical methods to perform paleoecological analysis by site of 4600+ early Oligocene (Orellan NALMA) mammal tooth specimens from Badlands National Park, South Dakota.
- Preliminary results presented at Society for Vertebrate Paleontology Annual Meeting, 2007.
- Collected and curated vertebrate specimens from Bridger and Wind River Basins, Wyoming.
- Mentored high school students in Rosen Scholar Program.

Geochemistry Research Assistant, January 2005-May 2005

Dr. Henry C. Fricke, Department of Geology, Colorado College

- Prepared specimens of Cretaceous dinosaur and turtle bone and soil samples for XRF analysis of rare earth elements.

COMMUNICATIONS EXPERIENCE

Informatics Graduate Assistant, September 2007-June 2009

Tara Hess, Informatics Section, University of Colorado Museum of Natural History

- Website development and maintenance: <http://cumuseum.colorado.edu>, particularly temporary exhibit webpages and Objects of the Month.
- Created graphics for museum website redesign and transferred content.
- Conducted museum IT inventory.
- Help maintain museum backup servers.
- Wrote press releases, web content, and other promotional materials.
- Proofread web content and promotional materials.

Newsletter Editor, January 2009-present

Association for Women Geoscientists – Laramide Chapter

- Organized and edited articles and sourced photographs for newsletter.
- Laid out newsletter in Adobe InDesign.

Webmaster and Newsletter Editor, May 2007-present

Friends of the Florissant Fossil Beds, Inc.

- Designed and currently maintain website (<http://www.fossilbeds.org>) for nonprofit Friends of the Park group supporting Florissant Fossil Beds National Monument, including updating news blog with articles, announcements, and photographs.
- Write, edit, and proofread for the quarterly print newsletter, which covers park happenings, science, and history.

Freelance Writer, Editor, and Web Designer, June 2005-present

Self-Employed

- Covered science, health, environmental, and student issues for various magazines and educational publishers, including *Geotimes*, *Colorado College Alumni Bulletin*, and Salem Press.
- Edited a wide range of materials, including exhibit labels, brochures, web content, scientific papers and abstracts, and grant proposals.
- Designed websites.

COMMUNICATIONS EXPERIENCE, CONT.

Seminar Registrar, May 2007-August 2007

Florissant Fossil Beds National Monument

- Organized publicity for summer seminar series for teachers and other interested adults, including press releases, website announcements, and event calendar submissions.
- Answered questions and registered students for seminar series.

COMMITTEES

Graduate Student Representative

Collections Committee, University of Colorado Museum of Natural History

September 2007-present

Informatics Student Representative

Biodiversity Project Exhibit Committee

September 2008-January 2009

Informatics Student Representative

Evolution: Here and Now Exhibit Committee

January 2008-September 2008

PROFESSIONAL ASSOCIATIONS

- Paleobotanical Section, Botanical Society of America (2007-present)
- Geological Society of America (2004-present)
- Association of Women Geoscientists (2005-present)
- Society for Preservation of Natural History Collections (2007-present)
- National Association of Science Writers (2005-2007)