

## MARY ELLEN BENSON

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### Education in Geological Sciences

#### Ph.D. candidate in Geological Sciences at University of Colorado, Boulder

Concentrations: Diatom Systematics, Paleontology, Paleoecology, Paleolimnology, Taphonomy, and Sedimentary and Volcanic Petrology.

Doctoral Research: Paleontology of the freshwater diatom flora and taphonomic influences of the depositional and burial history of the Late Eocene Florissant Formation, Teller County, Colorado.

#### M.S. degree in Geology, University of Idaho, Moscow, 1980

Concentrations: Carbonate and Clastic Sedimentary Petrography, Field Geology, Interpretation of Depositional Environments, Marine Invertebrate Paleontology, Trilobite Biostratigraphy, Taphonomy, Paleoecology, and Tertiary Paleobotany.

Thesis Title: *Paleoenvironments of the Lower Lakeview Limestone (Middle Cambrian), Bonner County, Idaho.*

#### B.S. degree in Geography, Earth Science minor, East Carolina University, Greenville, NC, 1969

Concentrations: Physical Geography, Geology, Secondary Education; Spanish Language.

### Additional Graduate Coursework

- GEOL 5700: Physical, Chemical, and Biological Processes of Sedimentary Systems, a 3 credit course at University of Colorado, Boulder, Fall 2007.
- MUSM 6110: Fossil Taphonomy, a 3 credit course at University of Colorado, Boulder, Spring 2006.
- EBIO 5030: Limnology, a 3 credit course at University of Colorado, Boulder, Spring 2005.
- Botany 580I: Ecology and Systematics of Diatoms, an intensive 4 semester-hr. field and lab course taught at Iowa Lakeside Laboratory, Milford, IA: Iowa State University, Ames, Summer 2002.

### Memberships in Professional Organizations

- Phycological Society of America
- Paleontological Society
- Sigma Xi (The Scientific Research Society)
- Society for Sedimentary Geology (SEPM)
- Geological Society of America
- American Association of Petroleum Geologists

### Professional Credentials

- Registered Professional Geologist, State of Wyoming

### Publications and Presentations with Published Abstracts

- Benson, M.E., Smith, D.M, and Spaulding, S.A., 2006, *Exceptional Diversity in Late Eocene Freshwater Diatoms from the Florissant Formation, Teller County, Colorado*: Geological Society of America Annual Meeting, Abstracts with Programs, 38(7), October 22-25, Philadelphia, PA.
- Motzer (Benson), M.E., 1980, *Paleoenvironments of the Lower Lakeview Limestone (Middle Cambrian), Bonner County, Idaho*: unpublished M.S. Thesis, University of Idaho, Moscow, 174 pp., 6 pl.
- Motzer (Benson), M.E., 1980, *Middle Cambrian Faunas from Northern Idaho*: Northwest Science Program and Abstracts, 53<sup>rd</sup> Annual Meeting of the Northwest Scientific Association, March 27-29, at University of Idaho, Moscow, p. 33.

### Presentations for Public Out-reach Education

- Benson, M.E., February 7, 2008, *Exceptional Diversity of Freshwater Diatoms from the late Eocene Florissant Formation, Teller County, Colorado*: Student Grant Recipients Presentations, Van Riper Scholarship, University of Colorado Museum, Boulder, CO.
- Benson, M.E., October 6, 2007, Informal Presentation on Florissant Diatom Research Progress to Colorado Scientific Society, Florissant Fossil Beds National Monument, Florissant, CO.
- Benson, M.E., July 29, 2007, Diatom Seminar: Florissant Fossil Symposium sponsored by Friends of the Florissant, at Florissant Fossil Beds National Monument, Florissant, CO.

## Grants and Fellowship Awards

2008 for Research on late Eocene Florissant Diatoms:

- Walker Van Riper Scholarship Award of \$1,000 from the University of Colorado-Boulder Museum
- Student Research Grant of \$1,000 from the University of Colorado Department of Geological Sciences

2007 for Research on late Eocene Florissant Diatoms:

- Walker Van Riper Scholarship Award of \$1,500 from the University of Colorado-Boulder Museum
- Student Research Grant of \$3,000 from the Evolving Earth Foundation
- Stephen J. Gould Student Research Award of \$500 from the Paleontological Society
- Ogden Tweto Memorial Research Grant of \$1,800 from the Colorado Scientific Society
- Academic Award of \$1,700 from the Colorado Mountain Club Foundation
- Sam Van Landingham Fellowship-Student Research-\$576-California Academy of Sciences, San Francisco

## Support Roles in Research and Museum Curation

- 06/04 to 06/07 Paid half-time **Paleontology Research Assistant/Graduate Assistant** on projects with invertebrate collections database, holotype collection, Green River (Middle Eocene) insects, and Plio-Miocene mollusks of Yorktown Formation, VA-NC: **CU Museum, University of Colorado, Boulder, CO.**
- 10/01 to 01/04 Volunteer part-time **Paleobotany Fossil Preparation Assistant** (Member of "Leaf Whackers") on projects with chief curator and master's degree-seeking graduate student preparing specimens from the West Bijou Creek (Paleocene/Cretaceous) flora in Colorado; the Hanna Basin (Paleocene) flora in Wyoming; and the Republic (Eocene) flora in Washington: **Denver Museum of Nature and Science, Denver, CO.**
- 10/01 to 06/02 Volunteer part-time **Micropaleontology Lab Assistant** working on ostracods for paleohydrologic, paleoclimatic, and environmental research using stable isotopes: **U.S. Geologic Survey, Federal Center, Lakewood, CO.**
- 10/01 to 06/02 Volunteer part-time **Paleontology Assistant** on projects including grading specimens in the fossil collection, and creating a guide for the taxonomic listing of specimens in the museum's relational database: **Geology Museum at Colorado School of Mines, Golden, CO.**
- 01/99 to 02/99 Volunteer part-time **Micropaleontology Research Assistant** working on conodonts for a project on the stratigraphy of the Minturn Formation in the Eagle Basin of Colorado with the National Cooperative Geologic Mapping Team: **U.S. Geologic Survey, Federal Center, Lakewood, CO.**

## Current Employment

09/07 to present **Student Contract Geologist** with Minerals Assessment Team, Minerals Group, Sedimentary Exhalative Deposits, Eastern U.S.A., **U.S. Geological Survey, Federal Center, Lakewood, CO.**

## Employment Experience in Geoscience Industries

- Professional **Geologist** for more than 15 cumulative years on field and subsurface projects in sedimentary terranes for mining and petroleum exploration companies and water-quality monitoring projects in the western US. Consulting Geologist, Denver, CO – Petroleum, Copper, & Environmental  
Senior Petroleum Exploration Geologist: ARCO Exploration and ARCO Development, Denver, CO  
Summer Field Minerals Geologist: Anaconda Co.-Uranium-KS&NE, Anaconda Copper-Uranium-TX, Noranda-Cobalt/Copper-ID, Randolph Resources-Lead/Zinc-WA, British Newfoundland Exploration-Lead/Zinc-WA.

## Industry Awards

- 1984 "Vice Presidential Award for Excellence in Exploration" from ARCO Exploration Company, Denver, CO
- 1984 "Oil Finder's Award" from ARCO Exploration Company, Denver, CO

## Employment Experience in Education

- **Teaching Assistant** (Instructor) for physical geology lab course for one semester at University of Colorado, Boulder.
- **Tutor** of developmental curriculum courses such as English, Reading, and Math for 3 years at Red Rocks Community College, Lakewood, CO.
- **Instructor** of college invertebrate and introductory paleontology courses for 4 semesters during master's degree program at University of Idaho, Moscow.
- Professional, state-certified science **Teacher** in public and private high schools for over 5 years in VA and CO.