

Sean K. Faulkner

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Curriculum Vitae

Education

University of Massachusetts, Department of Geosciences- M.Sc. (in progress)
Masters thesis: Sahara Desert Microbialites from the base of the Meski Plateau, Erfoud, Morocco. Advisor: Dr. Lynn Margulis

University of Massachusetts, Department of Geosciences- B.Sc. Earth Systems Science

Massasoit Community College, Brockton, MA- A.Sc. General Science

Research Interests

Cave-related geomicrobiology; chemoautotrophy and chemically run ecosystems; deep/cold water corals; Mesozoic paleoenvironments and mass extinction events; Cenozoic climate change; origins and early evolution of life; environmental evolution throughout geologic history.

Grants & Awards

- 2008 NASA Planetary Biology Intern (begins June 2008)
- 2007 Massachusetts NASA Space Consortium Grant
- 2006 Massachusetts NASA Space Consortium Grant
- 2006 University of Massachusetts-Amherst Department of Geosciences Elinor J. Fierman Memorial Prize
- 2006 National Science Foundation Science Teaching Education Program (STEP) Noyce Scholars Award

Research Experience

2003 University of Massachusetts: Responsible for sample preparation for whole rock elemental analyses on the Cretaceous Mesa Verde section of Mancos Shale, Mesa Verde, CO. Work helped determine per cent organic carbon and nitrogen, total organic material, and isotopic carbon fractionation values to help determine the paleoceanography of the Western Interior Seaway during the Cretaceous Period.

2006- University of Massachusetts (current): Responsible for sample preparation, data collection, and data analysis pertaining to my graduate thesis, tentatively titled: "Sahara Desert Microbialites from the base of the Meski Plateau, Erfoud, Morocco". Conducted field research in January 2008 at the research site outside of Erfoud,

Morocco in collaboration with Dr. Mohammed Et-Touhami of the Universite Premier Mohammed Oujda (Morocco)

2008 New Mexico Institute of Mining and Technology: (begins June 2008)

Teaching Experience

2004- Responsible for coordinating the Extra Credit Program developed by Dr. Lynn Margulis to accompany the Biology 280: Evolution class. Responsibilities include updates of teaching materials, distribution of materials, student assistance and grade recording.

2007- Teaching assistant for Environmental Evolution (Geo 483/692; Bio 597; OEB 797). Responsibilities include updates of teaching materials, distribution of materials, student assistance, grade recording, class preparation, overseeing film sessions, and teaching.

Special skills

Sample preparation of geological samples for analyses (petrographic, isotope fractionation, SEM, microfossil detection), light microscopy (for petrographic analysis), scanning electron microscopy, limited scanning electron microprobe, image enhancement and design software, video and audio digitization software, advanced computer skills (Mac and PC)

Active memberships & Professional organizations

2007 International Society of Protistologists (ISOP)

2007 American Association of Petroleum Geologists (AAPG)

2006 Geological Society of America (GSA)

2006 American Geophysics Union (AGU)

2006 Past Global Changes (PAGES)

2006 National Speleological Society (NSS)

2005 Sigma Xi Scientific Research Society (Sigma Xi); UMass-Amherst Chapter Secretary, 2005