



Grand Junction Geological Society

<http://www.gjgs.org/>



This Month's Presentation

Benjamin J. Burger

**Associate Professor of Geology
Uintah Basin Campus – Vernal
Utah State University**

Will speak on

**Mammalian Fossil Diversity
Across the Paleocene-Eocene
Boundary: Extinction,
Migration, and Climate in the
Rocky Mountain Region**

Meeting Time and Location

December 11, 2024

Joint meeting with the CMU Geology Students

7:30 p.m.

Saccomanno Lecture Hall (Room 131 in the Wubben-
Science Building at Colorado Mesa University)

Zoom Details

Andres Aslan is inviting you to a scheduled Zoom meeting.

Topic: GJGS December meeting

Time: Dec 11, 2024 07:00 PM Mountain Time (US and
Canada)

Join Zoom Meeting

<https://coloradomesa.zoom.us/j/92080382489>

Meeting ID: 920 8038 2489

Note: the Zoom meeting opens ½ hour early to give people
time to log in.

Important Announcements

Dues are due!! At our November meeting, the members
present voted to increase dues to \$25 per year to make our
income better match our expenses. You can pay by check or
cash at the meeting, or mail a check to our P.O. Box at:

P.O. Box 4045
Grand Junction, CO 81502-4045

Or, if you prefer, you can also pay by credit card on our
website: GJGS.org. If you do so, please consider adding
\$2.00 because that is about what we pay in service fees for
these transactions.

Abstract

Mammalian Fossil Diversity Across the Paleocene-Eocene Boundary: Extinction, Migration, and Climate in the Rocky Mountain Region

Benjamin J. Burger

Mammalian paleontology provides critical insights into past climate and environmental changes. This presentation will explore my research on fossil mammals from the Piceance Creek Basin, near Grand Junction, Colorado, focusing on the late Paleocene and early Eocene. This interval encompasses the Paleocene-Eocene Thermal Maximum (PETM), a period of rapid global warming, and its profound effects on mammalian biodiversity. I will also examine broader patterns of mammalian diversity and environmental change across the Rocky Mountain region, including Colorado, Utah, and Wyoming, from the late Paleocene to the late Eocene. By analyzing fossil mammals, primarily identified through dental remains, this research offers a unique perspective on the dynamic ecological and climatic shifts during this critical period of Earth's history from 60 to 34 million years ago.

Bio

Dr. Burger received a B.A. degree in geology from the University of Colorado, a M.S. degree in anatomical science from the State University of New York – Stony Brook and a PhD from the University of Colorado. He is the author of papers on paleontology as well as several on modern teaching methods in geology and paleontology. He was previously employed in the Paleontology Division of the American Museum of Natural History and as a paleontological consultant for SWCA Environmental Consultants. He is presently an Associate Professor at the Utah State University, Uintah Basin Statewide Campus, Vernal, Utah, where he conducts research, mentors graduate students, and teaches courses in geology and paleontology.