

Materials_GrndJctGeoSoc-Talk

16 September, 2026

Talk Title: “The Most Diverse Geology on Earth? NW Wyoming / Jackson Hole”

Talk Abstract:

The title for this talk is a bit of a challenge to the audience, as well as recognition of the long list of geologic events and processes evident in NW Wyoming. Through more than 2.8 by of time many geologic events and processes have combined to create the dramatic scenery of the area.

This talk will take you through those events and processes. They include:

1. The earliest recognized continent – continent plate collision.
2. Evidence of the break-up of the Rodinia supercontinent.
3. The “great(est)” unconformity, spanning >2by of time.
4. Continental drift from equatorial seas to northern mid-latitudes.
5. A half billion years of sedimentation, while at or near to sea level.
6. Late Mesozoic – early Cenozoic arrival of the Thrust Belt.
7. Late Mesozoic – early Cenozoic development of basement cored Foreland Uplifts and their adjacent deep basins.
8. Major Cenozoic volcanism that formed the present day Absaroka Range.
9. Yellowstone volcanism, moving through the craton and arriving at today’s location in Yellowstone National park.
10. Major regional late Miocene uplift and resultant ongoing erosion.
11. Latest Miocene and early Pliocene arrival of Basin & Range extension into western Wyoming.
12. Repeated Pleistocene glaciation, both Alpine and quasi-continental (the latter from the Yellowstone uplift).

All of these events & processes are evident to the geologist’s eye, and have resulted in the dramatic scenery, as well as the flora, and fauna of the area - and the national parks and forests that are prominent socio-political features of NW Wyoming.

Brief Bio: John J Hebberger Jr.

John is a Bachelor and Masters degreed geologist from the University of Missouri, who had a 3 decade career with Chevron Corporation. The Chevron career involved exploration and development work in domestic and international assignments, in both technical and managerial roles. Since retiring to Jackson, Wyoming, John has worked to understand the complex geologic

history of Wyoming, and helped to make the local organization, the Geologists of Jackson Hole, an important part of the community's fabric and culture – with public presentations throughout the year from geologists in academia, government, and private industry.