

ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS Carolinas Chapter

Geological Field Course to the Grandfather Mountain Area McDowell and Mitchell Counties, North Carolina Saturday, October 7, 2023 - 9:00 AM to ~5:00 PM

Field Trip Leaders: Bart Cattanach, Ashley Lynn, Brennan Trantham, David Korte North Carolina Geological Survey

<u>Details:</u> Three stops in the morning, lunch at the Switzerland Inn, and three stops in the afternoon including overlooks at Linville Gorge and roadside outcrops within the Grandfather Mountain tectonic window. Course begins at 9AM and ends by 5PM.

Location: Starts and ends in the NCDEQ parking lot at 2090 US 70 Hwy in Swannanoa, NC with an option to leave vehicles at the Lowe's Home Improvement store in Marion for those heading East after the trip.



Field Course Description: We'll visit the western edge of the Grandfather Mountain tectonic window and see outcrops within and outside the window. We begin at a "never field tripped" outcrop of the Linville Falls fault, a major ductile fault zone juxtaposing Mesoproterozoic granitic rocks on top of Cambrian carbonates. We'll then explore outcrops of metamorphosed sediments and the intrusive Spruce Pine Plutonic Suite outside the window. After lunch we'll visit sandstones within the Grandfather Mountain Window to see primary sedimentary structures and a great view of Linville Gorge. Linville Gorge is part the rugged escarpment separating the Blue Ridge and Piedmont physiographic provinces and contains many interesting bedrock and geomorphic features. We'll finish the course viewing slope movement and ductile and brittle deformation features at roadcuts inside the Grandfather Mountain window.

Cost: \$20 for AEG members and teachers; \$50 for non-members, \$1 for student members. Registration does not include the cost of your lunch.

<u>Registration:</u> Go to <u>www.aegcarolinas.org/news</u>. <u>Reservation deadline: 5:00 PM, Friday, September 29, 2023. Field trip is limited to 20 participants.</u> Due to the lack of parking places at some outcrops, we will carpool with up to five to a car for a total of 20 people. Bring your four-door car. You can leave your car not being used at the DEQ parking lot in Swannanoa or Lowe's parking lot in Marion.

<u>Field Course Waiver:</u> When you register for the field course, please sign/date and return field course waiver to Rick Kolb at <u>rick.kolb1@gmail</u> or bring it with you to the field trip.

Continuing Education Credits: Seven hours for North and South Carolina geology board.