



Need continuing-education hours by June 30 for your geology license?

**Pleistocene Paleoseismicity and Landforms in the Blue Ridge
Sparta Area, North Carolina
Saturday, May 20, 2023 - 8:30 AM to 5:30 PM**

**Field Course Leaders:
Arthur Merschat and Mark Carter
United States Geological Survey**

Event: Pleistocene paleoseismicity and landforms in the Blue Ridge - Results from integrated field studies of the 9 August 2020, Mw 5.1 earthquake near Sparta, North Carolina

Details: Field course starts at 8:30 AM with a 90-minute lunch break in downtown Sparta and will end at approximately 5:30 PM. Lunch will be on your own at the numerous restaurants along Main Street in downtown Sparta. Field vehicles will be a few participants' cars.

Location: Field course starts and ends just southeast of Sparta in the gravel parking lot behind VFW Auxiliary Post #7034 at 1193 U.S. 21 in Sparta.

Cost: \$20 for AEG members, teachers, and the public; \$30 for non-members; free for student members of AEG (student membership of AEG is free)

Registration: Online: go to www.aegcarolinas.org/news. *Field trip is limited to 20 participants.*

Reservation deadline: *5:00 PM, Wednesday, May 17, 2023*

Field Trip Waiver: Please sign/date and email your field course waiver to Rick Kolb at [rick.kolb1@gmail](mailto:rick.kolb1@gmail.com) by **May 17, 2023** or **bring it with you to the field trip.**

Continuing Education Credits: 7 hours for the NCBLG

Field Course Description

The field course will focus on the surface rupture from the 9 August 2020, Mw 5.1 earthquake near Sparta, NC, and the results of integrated bedrock and surficial geologic mapping, paleoseismic, geomorphologic, and geochronologic studies. The field course will involve walking ~ 1km of the surface rupture (Little River fault). We will then examine several outcrops brittle faults, Pleistocene terrace deposits, possible paleoliquefaction sites, and other geomorphologic sites in Sparta, North Carolina. These stops will help frame our discussions on the connections between seismicity, bedrock geology, geomorphology, and landscape evolution in the Blue Ridge.

Field Trip Leaders



Arthur Merschat, Ph.D.

Dr. Arthur J. Merschat is a research geologist with the U.S. Geological Survey and adjunct research professor at Appalachian State University. He is a co-project chief of the USGS Piedmont and Blue Ridge Project. Arthur's primary research goal is to create accurate, detailed geologic maps, with a special interest in complexly deformed crystalline rocks. He has spent the past 20 years studying the structure and tectonics of the Appalachians and has worked on geologic mapping projects in the southern Appalachians (Blue Ridge and Inner Piedmont), New England, and Adirondacks.



Mark Carter, P.G.

Mark W. Carter has been a Professional Geologist since 1996. Mark's expertise is geologic mapping throughout the southern Appalachian crystalline core. He has produced geologic maps and reports in Tennessee, North Carolina, and Virginia and from four geologic provinces -- Valley and Ridge, Blue Ridge, Piedmont, and Coastal Plain. He is currently co-project chief of the U.S. Geological Survey's Piedmont and Blue Ridge Project.