

Traveling through Geologic Time in the Mono Basin



August 14–16, 2026 • Guleed Ali

\$310 per person/ \$295 for Mono Lake Committee members
enrollment limited to 15 participants

The Mono Basin stands among the most dynamic geologic settings in North America. It lies within an actively rifting basin in east-central California, where multiple processes converge. Two chemically distinct volcanic fields remain active. Lake waters reach extreme salinity and alkalinity, hosting unusual rare-earth element chemistry. Traces of ancient glaciers and higher lake stands corrugate its surface, suggesting cooler and wetter conditions in the past. In this seminar, you will see a story board of the Mono Basin that shows how a once high-elevation plateau was dismantled and reshaped into a topographic sink, and then partially filled with sediment, pierced by magma from below, covered with tongues of ice from above, and cut through or swept clean by streams and the lake at its center, Mono Lake.

Guleed Ali's PhD research reconstructed ancient fluctuations of Mono Lake during the last Ice Age. Now an Assistant Professor, Guleed returns to the Mono Basin each year to explore new sites, map and date the advance and retreat of valley glaciers and lake shorelines, and constrain the timing of eruptions from the Mono Craters and Mono Lake volcanic fields.

ITINERARY

Friday, August 14 at 7:00pm: Meet in the gallery at the Mono Lake Committee Information Center & Bookstore in Lee Vining (51365 Highway 395). After introductions, we will dive into core principles in the geosciences and how to use them to tell time. We will also learn the geologic architecture and context of the Mono Basin.

Saturday, August 15 at 8:00am: Meet at the Mono Lake Committee Information Center & Bookstore. We will spend the day learning about the time before Mono Lake and how the positive and negative spaces of the region were molded. We will travel as far north as Conway Summit and as far south as June Lake, ultimately ending the day at the shore of Mono Lake around 4:00pm.

Sunday, August 16 at 8:00am: Meet at the Mono Basin Scenic Area Visitor Center (1 Visitor Center Drive). We will spend the day learning about the past climates of the Mono Basin through Ice Age thermometers and rain gauges. We will travel to locations on the north and west sides of Mono Lake including Cemetery Road, Highway 167, Old Shrimp Hatchery, and Lee Vining Creek. The day will end around 4:00pm.

ACTIVITY LEVEL:

This seminar's activity level: *strenuous*. This seminar will involve prolonged periods of sun exposure and heat. We will be walking up to two miles a day on and off trails and on uneven terrain, as well as standing for extended periods of time. There may be rocks and dense vegetation to navigate around. This type of activity requires good balance, some agility, and stamina.

WEATHER & ALTITUDE

Temperatures in summer will be hot during the day and cool at night, with possible windy conditions and afternoon thunderstorms. Average temperatures in August in Lee Vining are 83°F (max) and 52°F (min).

This seminar will take place at elevations ranging from about 6,000 to 10,000 feet above sea level. It is a good idea to acclimate at the elevation of Lee Vining for at least 24 hours prior to the start of the seminar. Those with a history of heart, ear, or respiratory problems should consult their doctors before attending. Anyone restricted to lower elevations should not enroll.

Remember to bring (and drink!) lots of water because your body loses more water at the higher altitudes of the Mono Basin. Begin drinking extra water as you drive to higher elevation in order to prevent dehydration and headaches. Also, the sun is intense at high elevations, capable of burning even on cool and cloudy days, so be sure to protect yourself thoroughly using sunscreen, sunglasses, and hat.

MEALS

Please bring a lunch already packed in the morning plus water and snacks to eat during both days.

TO BRING

___ warm clothing/layers

___ long pants (due to brush)

___ raincoat, just in case

___ hat, sunscreen, and sunglasses

___ daypack

___ plenty of water

___ boots or supportive shoes

___ trekking poles

RECOMMENDED READING

- *Strata* by Laura Poppick



Mono Lake Committee Field Seminars

P.O. Box 29 • Lee Vining, CA 93541 • (760) 647-6595 • monolake.org/seminars