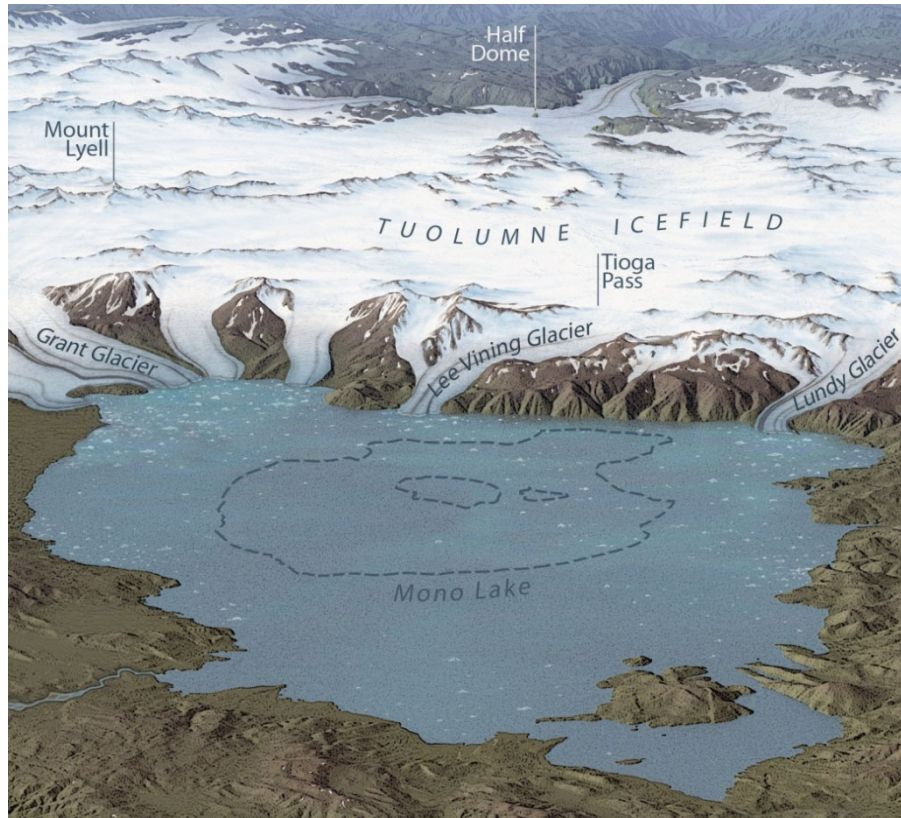


# Geology of the Mono Basin: Land of Fire & Ice



*The Mono Basin as it might have looked circa 120,000 years ago. Illustration by Eric Knight.*

**July 21–23, 2023 • Greg Stock**

**\$250 per person / \$235 for Mono Lake Committee members  
enrollment limited to 14 participants**

From volcanic craters to glacial moraines, earthquake faults to tufa towers, the Mono Basin displays some of the most unique, spectacular, and accessible geology anywhere in the world. This seminar, consisting mostly of field visits to the premier sites, will present in understandable fashion the geologic stories of the Mono Basin. The seminar will visit and explain such scenic wonders as Mono Lake, the Mono Craters, Black Point, Lee Vining Canyon, and Tioga Pass. If you've ever wanted to know more about the geologic forces that formed the diverse landscapes of the Mono Basin, this trip is for you.

Greg Stock is the first-ever Yosemite National Park geologist. He has a BS in geology from Humboldt State University and a PhD in earth sciences from UC Santa Cruz. A near-lifelong resident of the Sierra Nevada, Greg has studied and interpreted the geology of the Sierra Nevada for more than 20 years. He has authored or co-authored over 100 papers and abstracts on Sierra

Nevada geology and is co-author of the book *Geology Underfoot in Yosemite National Park*. Greg is excited to share his knowledge of, and passion for, the outstanding geology of the Mono Basin!

**ITINERARY** (The itinerary for this seminar will be flexible in order to respond to local conditions and class participant interest.)

**Friday, July 21, 7:00pm:** Meet in the gallery at the Mono Lake Committee Information Center & Bookstore. After introductions, we will view a slideshow presentation that will review basic geologic concepts and provide some background on the Mono Basin sites that we will visit in the following days.

**Saturday, July 22, 8:00am:** We will meet at the Mono Lake Committee and carpool to stops in Tioga Pass, Bennettville, Ellery Lake, and Lee Vining Canyon. We will finish the day about 5:00pm.

**Sunday, July 23, 8:00am:** We will meet at the Mono Lake Committee and carpool to stops at Panum Crater, South Tufa, the Aeolian Buttes, Old Marina, Black Point, and possibly others, finishing the day by about 4:00pm.

### **ACTIVITY LEVEL: DIFFICULT**

This seminar's activity level: *difficult*. We will be walking up to three miles a day, some of which will be over uneven terrain, off trail, and will include stepping up and over obstacles. This type of walking requires good balance, some agility, and stamina. Be prepared for short, steep sections of trail. This seminar includes a short but challenging hike at altitude.

### **WEATHER & ALTITUDE**

Temperatures in summer will be hot during the day and drop to chilly at night, with possible windy conditions and afternoon thunderstorms. Average temperatures in July in Lee Vining are 84°F (max) and 53°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.

### **TO BRING**

- hand lens
- notebook and pen/pencil
- camera
- binoculars (optional)
- trekking poles (optional)

- \_\_\_ appropriate field clothing: sun hat, sunglasses, warm layers, raingear
- \_\_\_ day pack including plenty of water, sunscreen, insect repellent, etc.
- \_\_\_ packed lunch for each day

## **RECOMMENDED BOOKS**

- Glazner, Allen, and Greg Stock, *Geology Underfoot in Yosemite National Park*, Mountain Press, 2010.
- Hill, Carol, *Geology of the Sierra Nevada, Revised Edition*, California Natural History Guides Series No. 80, University of California Press, Berkeley, 2006.
- Tierney, Timothy, *Geology of the Mono Basin*, Mono Lake Committee Field Guide Series, Kutsavi Press, 1995.



## **Mono Lake Committee Field Seminars**

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