

venture

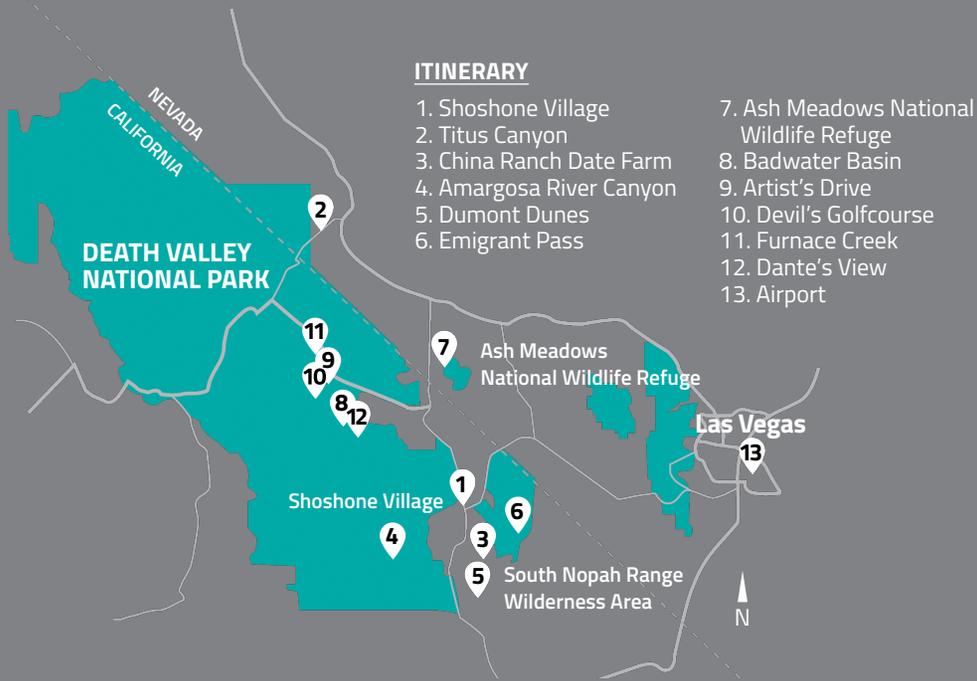
to the Death Valley Rendezvous



April 14-19, 2019



GEOLOGICAL SOCIETY OF AMERICA
FOUNDATION



ITINERARY

1. Shoshone Village
2. Titus Canyon
3. China Ranch Date Farm
4. Amargosa River Canyon
5. Dumont Dunes
6. Emigrant Pass
7. Ash Meadows National Wildlife Refuge
8. Badwater Basin
9. Artist's Drive
10. Devil's Golfcourse
11. Furnace Creek
12. Dante's View
13. Airport



Join geology-minded friends, old and new, on this rich experience exploring the area's geologic wonders, natural habitats for abundant plants and wildlife, and cultural history.

The trip offers something for everyone, from geologists to their guests. Any areas we visit for walks/hikes have ample space and scenery for those preferring to relax and enjoy their surrounds. All meals are included, other than lunch on the arrival/departure days, when vehicles will stop for guests to eat on their own. Our home base of Shoshone Village includes a natural setting with plenty of patios and meeting spaces for informal gatherings and conversations around our planned activities and meals.

COSTS AND INCLUSIONS:

- \$1,360/person - single room; \$1,080/person - shared room
- Transportation to/from Las Vegas McCarran International Airport
- Five (5) nights lodging
- All meals (beginning with dinner on the day of arrival, ending with breakfast on day of departure)
- Water and snacks for field days
- National Park Entrance Fees
- Trip leader Darrel Cowan, Emeritus Professor, University of Washington Earth and Space Sciences, whose life's work and research has centered on the Death Valley region
- Naturalist Len Warren, Amargosa River Project Director, The Nature Conservancy, leading a guided bird walk
- Handouts including trip itinerary, short field guide, map

Sunday, April 14: Arrival

Arrive to Las Vegas' McCarran International Airport by noon; trip vehicles will pick up attendees and stop for lunch on the 1 ½ hour drive to **Shoshone Village, CA**. Enjoy the afternoon wandering the village, its museum, and a geologic walk through time. We will gather for our first group dinner that evening.

Monday, April 15: Geology in the Park

A drive on our first field day will take us into the national park to **Titus Canyon**, a deep, narrow gorge—less than 20 feet wide in parts—in the steep face of the Grapevine Mountains. The canyon features limestone formations and petroglyphs alongside rare native plants and wildlife (one of the best places in the park to see bighorn sheep). Colorful rock deposits contain 30-35 million year old fossil beds. Discussions will include the area's mining history, and we will have lunch before our stop at the Furnace Creek Visitor's Center and museum.

Tuesday, April 16: Geology and local cultural stops

Our day begins with a trip to the **China Ranch Date Farm**, a lush oasis hidden in some of the most spectacular scenery of the Mojave Desert. Walk to views of the dramatic **Amargosa River Canyon**, carved about 200,000 years ago when ancient Lake Tecopa drained. We will see badlands sculpted from eight million year old

lake beds and younger alluvial gravels.

The canyon preserves a rich historical record of abandoned mines, the Old Spanish Trail, and the Tonopah & Tidewater railroad bed. We will eat lunch on the lovely grounds of the farm, and for those who would rather not walk to various sites, the immediate grounds and store offer plenty of spaces for leisure while others explore the trails.

Our next stop at **Dumont Dunes**, distinctive against their bordering volcanic hills and Amargosa River, will put us at the southeastern corner of Death Valley National Park. Formed by windblown sand from a prehistoric lake, almost every type of dune can be found here, with the highest reaching about 500 feet above the river. We can see the geologic record of "Snowball Earth," a hypothesis that Earth was completely encased in ice about 650 million years ago.

We will make a stop at **Emigrant Pass** to look for early Cambrian fossils from the Carrara Formation before heading back to Shoshone.





ASH MEADOWS NATIONAL WILDLIFE REFUGE



RAINBOW MOUNTAIN

Wednesday, April 17: Focus on wildlife

The day begins in Shoshone, where we will walk the nature trails through wetlands and wilderness areas to see the Shoshone pupfish that had been declared extinct in 1970. A naturalist will accompany the group on a bird walk in the area.

In late morning we will head to **Ash Meadows National Wildlife Refuge** in the Amargosa Valley, directly east of Death Valley National Park. Ash Meadows is home to the highest concentration of endemic species in the United States. Walk the boardwalk trails to see natural Caribbean-blue spring pools in the middle of the desert, nearly 300 species of birds, and distinct species and subspecies of pupfish



that existed when mammoths roamed the earth. We will have time here for lunch, discussions, and walks to unique spots like the famous Devils Hole.

Thursday, April 18: Diving Deeper into the Park

Our first stop of the day will be **Badwater Basin** (-282'), vast salt flats at the lowest elevation in North America covering almost 200 square miles. We will take our time and those who wish may walk out to the flats

before heading to **Artist's Drive**, a scenic loop of colored claystone from ancient ashfall. Our next observations will be at the **Devil's Golf Course**, a vast expanse of rock salt eroded into serrated spires where the pings of bursting salt crystals can be heard. We'll stop at **Furnace Creek** for lunch around its picnic tables before venturing up to **Dante's View**, high over Badwater and offering views of the Panamint Mountains and the 11,049' Telescope Peak. This is often called the most breathtaking viewpoint in the park.

Upon our return to Shoshone, those who would like can continue the day with short walks into local history, including cave dwellings used by miners in the 1920s. Our field days will end with an optional, post-dinner discussion of the sites along the trip.

Friday, April 19: Departure

Breakfast will be available before vehicles depart for the airport.

For more information or to reserve, please contact:

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