

## Geology of the Marble Mountains

### Information

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Date/ Time: Saturday, April 25, 9:00 am – 3 pm

Meet at: [Roy's Café and Gas Station](#), Amboy, CA

Instructor: Alessandro Grippo, PhD., Geology, Professor

### Overview

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The Marble Mountains are a rather small mountain range located in one of the harshest, driest parts of the Mojave Desert, in southeastern California near the tiny towns of Chambless and Cadiz. What makes the Marble Mountains especially attractive to paleontologists is the comparatively rich Cambrian fossil biota which can be found in a particular rock unit, the Latham Shale, that is well-exposed in the southern part of the range, as well as in some nearby ranges such as the Bristol Mountains. The Latham Shale and the rock layers below and above it comprise a well-studied section of Lower and Middle Cambrian strata, which extends, with some variation, over a large part of the southern Mojave Desert. The dominant fossils in the Latham Shale are trilobites. Trilobites form one of the earliest known groups of arthropods. Join Professor Alessandro Grippo on this all-day field trip.

### Itinerary

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- 9:00 Am meet at Roy's Café and Gas Station. Caravan to the Marble Mountains
- 9:15 AM brief introduction to the hike and the geology
- 9:40 AM start hike
- 12:00 PM lunch (bring your own food)
- 12:30PM continue field class
- 3:00 PM return to vehicles

### What to Bring to the Course

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#### *Optional Class Materials*

- Compass/GPS device
- Camera
- Binoculars
- Field guides

## **Suggested Reading:**

*“Roadside Geology of Southern California”* by Arthur Gibbs Sylvester and Elizabeth O’Black Gans  
Available at the Joshua Tree National Park Visitor Centers or [joshuatree.org](http://joshuatree.org)

### ***The 10 Essentials: Every day in the Desert***

- Day pack
- 4 quarts of water
- Closed toe hiking shoes-No sandals or equivalent
- Lunch and snacks
- Clothing layers
- Hat
- Sunglasses
- Sunscreen
- Notebook and pencil/pen
- Whistle

## **Fitness Requirements**

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Participants must be in good physical condition for courses/activities in a desert that may be hot, dry, windy, and sometimes surprisingly cold.

## **Hike Level**

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Moderate

## **Guidelines**

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- You are responsible for your safety.
- Park your car in designated areas only. Parking along the side of the road is dangerous to you and the environment.
- Rattlesnakes are present in the desert. Avoid contact with wildlife. Put your hands and feet only where you can see them.
- Only you know your limits, please let the instructor or Desert Institute Representative know if you do not want to continue. This is a long hike; only go if you are confident in your balance and scrambling skills.
- Stay with the group. If you get lost, stay put.
- Drink plenty of water. If you run out, notify the instructor or the Desert Institute Representative.
- Before leaving the class, check out with the Desert Institute Representative.

### **Instructor Biography**

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ALESSANDRO GRIPPO, Ph.D., Geological Sciences, University of Southern California, has done research and taught geology, oceanography, stratigraphy, environmental geology and field classes at Santa Monica College and several California State University campuses. Alessandro has a keen interest for the geology of the American southwest and loves being out there exploring, learning, and sharing his passion for Earth and its history.

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\* The Desert Institute staff/instructors will attempt to accommodate participant's needs, however we reserve the right to deny a student participation in the course due to concerns regarding health and safety issues.