



## Black Lava & White Sand Tour

March 8-10, 2008



Beauty and bio-diversity of the Sonoran Desert  
Photo credit: Michael Giscombe

Join the Arizona-Sonora Desert Museum on a journey into the heart of the Sonoran Desert and experience three of the world's most pristine and protected desert habitats: Cabeza Prieta National Wildlife Refuge, Organ Pipe National Monument, and El Pinacate and Gran Desierto de Altar Biosphere Reserve. Take a behind the scenes tour of the fragile and lush Sonoran Desert ecosystem, featuring unique native plants and wildlife. Cross the border into Sonora, México for a truly “volcanic” experience at the Pinacate & Gran Desierto de Altar Biosphere Reserve. The Pinacate Reserve treasures a sublime volcanic landscape that includes 10 giant “maar” craters, 3 types of lava flows, 400 cinder cones, a shield volcano, and the largest sand dune field in the New World. To fully experience the beauty, serenity, and sacredness of the area, this tour includes one night camping at the Biosphere Reserve. Our desert trek ends in Puerto Peñasco with a close examination of the marine life and biodiversity of the Sea of Cortez.

### Tour Overview

Day 1—Saturday, March 8: Tucson • Cabeza Prieta NWLR • ORPI • El Pinacate Biosphere Reserve

We travel southwest across the Tohono O’odham Nation, a vast desert landscape comparable in size to the state of Connecticut and home to the Tohono O’odham or “Desert People”. We arrive at Cabeza Prieta National Wildlife Refuge, the third largest in the lower 48 states. Here we are introduced to the ecology and natural history of this desert wilderness and learn of the refuge’s bi-national partnership to preserve populations of desert bighorn sheep and the endangered Sonoran Pronghorn. We drive up Child’s Mountain, to better appreciate the wilderness and context of this landscape. The refuge is surrounded by seven rugged mountain ranges that cast shadows over barren valleys once swept by lava. Its 56-mile of shared border with Sonora, Mexico might well be the loneliest international boundary on the continent. It also lies in the path of the infamous El Camino del Diablo, or “the Devil’s Highway,” a trail pioneered by Spanish explorers and missionaries that stretched from Mexico to California. After lunch in the historic mining town of Ajo, we drive to Organ Pipe National Monument. The monument showcases an extraordinary collection of plants and animals that have adapted themselves to the extreme temperatures, intense sunlight, and scant rainfall that characterize the Sonoran Desert region. Twenty-six species of cactus have mastered the art of living in this arid landscape, including the park’s namesake and the giant saguaro. We learn of the natural and cultural history of the area, conservation efforts, and contemporary issues impacting the monument. We cross the border into Sonora, México and continue on to the Pinacate and Gran Desierto de Altar Biosphere Reserve (PBR), one of the most remote and compelling protected areas in northern México. Located in the most arid portion of the Sonoran Desert, the reserve encompasses 285,823 acres of an otherworldly and awe-inspiring volcanic landscape. It features a remarkable biodiversity and a rich cultural and archeological history dating back to the San Dieguito culture that inhabited the region 12,000 years ago. Early Spanish explorers and missionaries, 18th-century prospectors and pioneers, and NASA astronauts training for Apollo missions in the early 1970s are among the many that have challenged this dramatic landscape. We arrive at the Pinacate late afternoon and settle into our camp at Cerro Tecolote Campgrounds. Before sunset, we venture out to explore the adjacent lava flows, cinder cones, and desert flora. Looming in the distance we observe Santa Clara Peak, a shield volcano that rises 4,236 ft. (1291 m) above sea level. That night we enjoy a delicious dinner prepared by our camp chefs, then kick-back to enjoy the vastness and solitude of this sacred landscape.



Spring bloom in Sonoran Desert  
Photo Credit: www.desertusa.com



## Day 2 – Sunday, March 9: El Pinacate Biosphere Reserve • Puerto Peñasco

We spend the morning exploring two of the most spectacular “maar” craters in the Pinacate Reserve: Elegante Crater, the deepest and most beautiful of all the craters, and Cerro Colorado, a light-reddish crater with irregular sides that is unlike any other in the region. “Maar” craters are formed by catastrophic eruptions in which basalt magma interacts with an underground water source (aquifer), causing violent steam-blast explosions of short duration; much like a repeatedly exploding pressure-cooker. We leave the reserve and drive south to Puerto Peñasco, northern Sonora’s largest seaport. In route, we stop to view the Gran Desierto de Altar dune field, the largest in the New World. Virtually all of the sands in the Gran Desierto derives in large part, from millions of years of erosion of the Grand Canyon. We arrive to Puerto Peñasco before sunset and settle into our hotel. At dinner we sample local seafood specialties and other culinary delights of the Sonoran coast. The evening ends with a presentation of the colorful history of this port city.




Elegante Crater at Pinacate Biosphere Reserve  
Photo Credit: Sonoran Office of Tourism

## Day 3 – Monday, March 10: Puerto Peñasco • Tucson

Today we visit the Center for the Studies of Desert and Oceans (CEDO), a bi-national field research station and education center that promotes conservation of the Upper Gulf of California. Guides from CEDO will take us on a tidepool tour to witness the adaptation drama of tiny marine life and their microhabitats unfolding at our feet. Tidal fluctuations at the northern end of the Gulf of California are as great as any found anywhere else on the planet. Tides vary as much as 20 feet between high and low tides and expose the rich and unique biodiversity of this desert sea. We also tour Estero Morua to experience the natural beauty of a typical estuary in the upper Gulf of California ecosystem. Here we learn about the ecological role and diversity of organisms that use estuary habitats as well as understand some of the human uses and impacts. The estuary supports an oyster farm managed by a local women cooperative. After a leisurely lunch, we spend some time exploring Puerto Peñasco’s vivid streets and markets. By mid-afternoon we begin our drive back home.

### Tour Details

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|  | La Ruta de Sonora is a non-profit enterprise developed by the Sonoran Institute to conduct responsible Geotourism along the Arizona-Sonora borderlands region as a way to provide economic opportunities for local residents. La Ruta underscores the importance of retaining valuable natural resources and local cultures as assets that support these activities   |
| <b>Tour Leader</b>  | Dr. Larry Marshall - Geologist and Evolutionary Biologist   |
| <b>Pace / Difficulty</b>  | Soft to moderate pace. Participants must be able to stand for up to one hour and get on and off a van with ease. Participants should be able to walk/hike up to a mile over uneven surfaces. Some accommodations, restaurants, and trails in Mexico may not be wheelchair/walker accessible.  |
| <b>Group size</b>   | 10-18 participants  |
| <b>Transportation</b>   | 15 passenger vans   |
| <b>Focus</b>  | <ul style="list-style-type: none"><li>● <b>Desert Ecology, Marine Biology, Conservation</b> – Geology and natural history of the Sonoran Desert, desert flora &amp; fauna, marine and coastal ecosystems, wildlife observation, conservation initiatives of the Upper Gulf of California, sustainable development.</li><li>● <b>History &amp; Culture:</b> Native Cultures, Spanish Explorers &amp; Missionaries, 18th Century History of the American West, Contemporary Mexican History</li></ul> |
| <b>Cost per Person</b>  | \$ 799/person based on double occupancy ■ \$150/single supplement.<br>Rate includes accommodations, meals, refreshments, transportation, activity fees, and guiding service. Alcoholic beverages are the responsibility of each participants. ation to La Ruta de Sonora’s Conservation Fund is also included. Does not include airfare to gateway city or gratuity to guide(s).  |
| <b>Deposit &amp; Registration</b>   | ■ Reservations require a \$350 deposit per person. The balance is payable 45 days before departure date.<br>■ Bookings made within 45 days before departure date require payment in full  |
| <b>Cancellation Policy</b>  | ■ Cancellations made prior to 45 days before departure date will be charged a \$350 cancellation fee and be refunded the balance of tour payment.<br>■ Cancellations made within 45 of departure date will result in forfeiture of the entire tour fee.   |
| <b>Required Travel Documents</b>  | A valid Passport is the most preferable means of identification and proof of citizenship since it ensures problem-free re-entry into the United States. <b>Starting January 31, 2008</b> , all travelers crossing into the U.S. by land will be required to present a proof of citizenship — such as a Passport or a U.S. state or federal government-issued birth certificate along with a government-issued photo ID such as unexpired driver’s license or military ID.                           |

To register for this tour, complete the enclosed reservation form or contact La Ruta de Sonora at:  
Telephone: (800) 806-0766 or (520) 886-6555 ■ [www.laruta.org](http://www.laruta.org)



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March 8-10, 2008

Tour Participant(s): 1] \_\_\_\_\_

2] \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Day Telephone: \_\_\_\_\_

Email: \_\_\_\_\_ Evening Telephone: \_\_\_\_\_

**Rooming arrangements**

Double-room occupancy: \$ 799/ person

Please assign me a roommate.

If none available, you may be required to pay single-room supplement.

I will share room with \_\_\_\_\_

Single-room supplement: \$ 150

**Payment information:**

Deposit required to reserve a space: \$350/person

Reservations made 45 days prior to departure date require full payment.

Payment by:  Check  Credit Card

Send or fax reservation form & deposit to:

|  |                               |                                     |
|--|-------------------------------|-------------------------------------|
| Credit Card Type:                        | <input type="checkbox"/> Visa | <input type="checkbox"/> MasterCard |
| Name on Credit Card:                     |                               |                                     |
| Credit Card Number:                      |                               |                                     |
| Expiration Date:                         |                               |                                     |
| Billing address if different than above: |                               |                                     |
|  |                               |                                     |

**La Ruta de Sonora**

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