

## THE PINACATE VOLCANIC FIELD

The Pinacate Volcanic Field is one of the youngest and most spectacular lava fields in North America. The volcanic complex consists of a small shield-type volcano with some 500 eruptive centers, including more than 300 cinder cones, along its flanks. Volcanic activity has been continuous but episodic in nature for the last 1.2 million years (Lynch, 1981). Although there is no historical record of an eruption, some volcanic features are so fresh, they look as though they could be "too hot to touch." A complete range of geomorphic ages can be seen in the Pinacate volcanoes from pristinely new lava flows and cinder cones, which are too young to radiometrically date, to eroded remnants and plugs.

The basaltic lavas erupted right on top of a sandy desert surface, which must have looked much like the present-day Gran Desierto. In essence, the volcanic activity buried what was once the eastern periphery of this active sand sea. Now, the wind-blown sand covers volcanic features where the lava flows meet the shifting dunes.

The great explosion craters are a special feature of the Pinacates. Three of the eleven maar craters (Elegante, MacDougal and Sykes) are the largest in the world. It is generally thought that the craters are excavated by blasts of steam generated when basaltic magma interacts with shallow ground water. Because of their inaccessibility, the bottoms of Elegante and Sykes Craters provide a special desert ecology study area, isolated from the recent intrusions of man and domesticated animals.

Few people live in this sun-baked land of black volcanic rocks. Cattle grazing is attempted by people in the few "ejidos," cooperative farms, along the periphery of the lava. Wood-cutters from Sonoyta, Puerto Peñasco and San Luis harvest mesquite and ironwood. Cinder mining occurs in a few places near the main road, Mexico Route 2, which crosses this region.

The Mexican Government designated the Pinacate Volcanic Field as "Parque Natural de Mexico" in 1974 but this does not have the same connotation for conservation as in the United States national parks. No rangers patrol the area and the desecration from trash and vehicle misuse is alarming. Along the dirt roads, delicate desert pavement of cinders and sparse vegetation have been damaged by recreational vehicles.

### Selected Reference List

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