In North America, practically all serpentine Aridisols are in Baja California. There may be some small, insignificant serpentine Aridisol occurrences in western Nevada or north of the Garlock fault in southern California, but the largest exposure at Candelaria in the Great Basin has been drastically altered by mining operations. The serpentine Aridisols of Baja California were observed and sampled during several short visits there. Descriptions of two pedons sampled during those visits were published in a book (Alexander et al., 2007), but no laboratory data have been reported anywhere. Because there have been no other previous reports on serpentine Aridisols in North America, results that include laboratory investigations are reported here.

Geologic Setting
The ultramafic rocks of Baja California are associated with Mesozoic island arc and sea floor deposits that were accreted to the North American continent during the Mesozoic Era. Those containing ultramafic rocks occur along the Pacific Coast from Cedros Island down the Viscaíno Peninsula, reappearing on Magdalena and Santa Margarita Islands (Fig. 1). Some of the rocks have been subducted and altered to the blueschist facies (Sedlock, 2003). There is a small occurrence of similar, but older (Mesozoic nevertheless), rocks in the ophiolite of Calmali in Baja California Norte, near the border with Baja California Sur.

Climate
Mean annual temperatures are about 20°C. Mean annual precipitation is about 10 cm on Cedros Island and along the outer coast of Baja California Sur and about 15 cm in the Calmali area (Hastings and Humphrey, 1969). Drought persists for most of each year in all of the serpentine areas (Hastings and Humphrey, 1969).

Methods
Soils were described according to the Soil Survey Manual (Soil Survey Staff 1993). Plants were identified by reference to Wiggins (1980). Soil horizon samples were air dried and passed through a U.S. Standard no. 10 sieve to separate the fine-earth (particles < 2 mm). Sand was separated by wet sieving and fractionated by dry sieving. Fine sand (125–250 μm) was separated into light and heavy fractions with bromoform (SG = 2.89) and a magnetic fraction was separated from the heavy fraction with a hand magnet. Fine sand grains of the light and heavy fractions were identified with a petrographic microscope in oils with refractive indices (RI) of 1.57 and 1.65. Cations were extracted from fine-earth samples with 1 M ammonium chloride, and the amounts of exchangeable Ca²⁺, Mg²⁺, Na⁺, and K⁺ were measured by atomic absorption spectrophotometry. Weight loss-on-ignition at 360°C was measured as a possible approximation of soil organic matter.