(Oberbauer 1991, Rieser 1994). Fremontodendron mexicanum is found as far south as Arroyo Seco, north of San Quintin, in Baja California, Mexico (Wiggins 1980).

Fremontodendron mexicanum was first described by Davidson (1917) (as F. mexicana). Macbride applied the name Fremontia mexicana to this species in 1918 (Abrams 1944). Jepson (1925) reduced Fremontia mexicana to Fremontia californica var. mexicana citing similarities between this species and Fremontia californica of central California. Abrams (1944) did not recognize Jepson's treatment, following Macbride. Recent treatments (Munz 1974, Kelman 1991, Whetstone and Atkinson 1993) recognize Davidson's original treatment. The genus name Fremontia was not conserved because Fremontodendron has taxonomic priority over the name Fremontia (Kelman 1991).

Fremontodendron mexicanum is known from fewer than 10 native historical locations in the United States. The majority of these are situated in the vicinity of Otay Mountain, San Diego County. Although no populations of F. mexicanum are known to be extirpated, this species has only been observed at one location in recent years (Cedar Canyon). Surveys of other historical localities have been unsuccessful in relocating this species (Ogden Environmental and Energy Services, Inc. 1992; Mitchell Beauchamp, botanist, in litt. 1993; Rieser 1994). The Bureau of Land Management (BLM) manages most of the Cedar Canyon population while other historical sites are divided between BLM and private landowners (CNNDB 1992). The total number of remaining plants of F. mexicanum in the United States is estimated to be fewer than 100 (CNDDB 1992; Beauchamp, in litt. 1993). Two additional native historical populations are reported from Mexico, however, one population has not been seen recently and the other (Arroyo Seco) may have been extirpated by a substantial flood (Rieser 1994).

Three historical localities that may represent native populations of *Fremontodendron mexicanum* have been reported north of San Diego County, California. These are Claremont Wash (Los Angeles County), near Quail Lake (Kern County), and from Junipero Sierra Peak in the Santa Lucia Mountains (Monterey County). These widely scattered and disjunct localities are based on single specimen collections that predate 1940 and the populations have not been relocated in recent years (Kelman 1991, CNDDB 1992). Identification of these specimens is

tentative due to lack of seed material and is based solely on the shape of the leaf base (Kelman 1991; Susan Cochrane, Natural Heritage Division, California Department of Fish and Game (CDFG), in litt. 1993). Whetstone and Atkinson (1993) dismissed these localities as being unreliable and have limited *F. mexicanum* to San Diego County, California, and Mexico. Regardless, even if it should prove that one or more of these populations are F. mexicanum, the botanical flora of central California is fairly well known and this species would be a rare element in this flora.

Several other recent localities have been reported in San Diego County and in Los Angeles County, California. However, these likely represent planted individuals readily available in the nursery trade or misidentifications (CNNDB 1992, Rieser 1994).

Berberis nevinii (Nevin's barberry), an evergreen shrub from 1 to 4 m (3 to 12 ft.) tall, is a member of the barberry family (Berberidaceae). It was first discovered by Reverend Nevin, a Los Angeles minister, in 1882 in the San Fernando Valley (Los Angeles County) and described by A. Gray in 1895 (Mistretta 1989a). Although Fedde (1901) applied the name *Mahonia* nevinii to this taxon, much of the current literature refers to Berberis rather than Mahonia (Moran 1982). The leaves of *B. nevinii* are pinnately compound with 3 to 5 lanceolate leaflets and serrate spine-tipped margins. Flowers, which appear from March through April, are yellow with six petals in two series and are clustered in a loosely flowered inflorescence 2.5 to 5 cm (1.0 to 2 in.) long (McMinn 1939, Williams 1993). The fruit is a juicy yellowish red to red berry 6 to 8 mm (less than 0.3 in.) long with plump brownish seeds. Other *Berberis* species have wider leaves, somewhat folded at the midrib, with marginal spines vertical to the leaf surface and smaller, differently colored berries. Related species also grow at higher elevations, generally above 800 m (2,500 ft.).

Berberis nevinii grows in two distinctive, yet related, habitat types: sandy and gravelly places along the margins of dry washes below the foothill zone of the Southern California Transverse and Peninsular ranges, and in coarse soils in chaparral communities (CDFG 1986). This species is typically found between 300 and 650 m (900 and 2,000 ft.) in elevation (CNDDB 1993). The association of *B. nevinii* with Lepidospartum squamatum, which requires groundwater flow, and its preference for sandy wash locations,

suggest that *B. nevinii* may also require groundwater flow (Niehaus 1977).

The range of *Berberis nevinii* includes Los Angeles, San Bernardino, Riverside, and San Diego Counties. The historical distribution of this species consisted of about 32 populations at 20 localities.

Currently, the total number of individuals is likely fewer than 1,000 (Boyd 1987, CNDDB 1992). At least seven populations have been extirpated. The largest remaining cluster of native populations, totalling about 300 individuals, occurs in Riverside County, California at the Vail Lake/Oak Mountain area. These populations occur on BLM lands north of Vail Lake, the Cleveland National Forest southeast of Vail Lake, and private ownerships in the Vail Lake region (Boyd et al. 1989). The remaining populations are small, fewer than 10 or 20 individuals, and occur on city park, Indian Reservation, or private lands (CNDDB 1992). An artificially established population of about 250 individuals occurs on an alluvial terrace in San Francisquito Canyon on the Angeles National Forest in Los Angeles County (Boyd et al. 1989).

The range of *Berberis nevinii* is well known and has been extensively surveyed. Additional populations are not likely to occur in the Vail Lake area (Boyd *et al.* 1989). A thorough search for *B. nevinii* on the San Bernardino National Forest and the Cleveland National Forest was completed in 1989, based on Boyd's (1987) habitat parameters. No new populations or individuals were found (Mistretta 1989b; Melody Lardner, Botanist, San Bernardino National Forest, *in litt.* 1993).

Nolina interrata (Dehesa beargrass) is a member of the lily family (Liliaceae) and is similar in appearance to members of the genus Yucca. Nolina interrata was discovered in 1939 and it was later formally described by Howard S. Gentry (1946). The description was based on collections from the type location on Dehesa Road, east of El Cajon in San Diego County, California. Gentry's taxonomic treatment is followed by Munz (1974). However, Beauchamp (1986) considered *N. interrata* to be conspecific with N. parryi, which is closely related. The most recent taxonomic treatment on the genus (Dice 1988) and floristic treatment for California (Dice 1993) recognized this species as distinct from N. parryi by its lack of above ground stems, low number of leaves (45 or less), and short flowering stalk (1.6 m (5 ft.)) or shorter. Nolina parryi has distinct above ground stems, numerous leaves (45 to 200) and taller flowering stalks (1.6 to 4 m (5 to 13 ft.)) (Dice 1993).