

final regulation that differs from this proposal.

The Endangered Species Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal in the Federal Register. Such requests must be made in writing and be addressed to the Pacific Islands Ecoregion Manager (see ADDRESSES section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessments or Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the

Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited herein is available upon request from the Pacific Islands Ecoregion Office (see ADDRESSES section).

Author

The author of this proposed rule is Marie M. Bruegmann, Pacific Islands Ecoregion Office (see ADDRESSES section). Substantial data were contributed by HHP and Steve Perlman and Ken Wood of HPCC.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulation Promulgation

Accordingly, the Service hereby proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. Section 17.12(h) is amended by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Family name	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*		*
<i>Cyanea dunbarii</i>	haha	U.S.A. (HI)	Campanulaceae	E	NA	NA
*	*	*	*	*	*		*
<i>Lysimachia maxima</i> .	no common name ..	U.S.A. (HI)	Primulaceae	E	NA	NA
*	*	*	*	*	*		*
<i>Schiedea sarmentosa</i> .	no common name ..	U.S.A. (HI)	Caryophyllaceae ...	E	NA	NA
*	*	*	*	*	*		*

Dated: September 20, 1995.
John G. Rogers,
Acting Director, Fish and Wildlife Service.
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BILLING CODE 4310–55–P

**50 CFR Part 17
RIN 1018–AD60**

Endangered and Threatened Wildlife and Plants; Proposed Endangered and Threatened Status for Four Chaparral Plants From Southwestern California and Northwestern Baja California, Mexico

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The Fish and Wildlife Service (Service) proposes to list *Berberis nevinii* (Nevin's barberry) and *Fremontodendron mexicanum* (Mexican flannelbush) as endangered, and *Ceanothus ophiochilus* (Vail Lake ceanothus) and *Nolina interrata* (Dehesa beargrass) as threatened throughout

their respective ranges in southwestern California and northwestern Baja California, Mexico, pursuant to the Endangered Species Act of 1973, as amended (Act). These species are associated with chaparral plant communities and, in some cases, are endemic to specific types of clay soils.

These species are threatened by habitat destruction, degradation, and fragmentation resulting from urban development, encroachment by exotic plant species, and disruption of a normal fire cycle. This proposed rule, if made final, would extend protection under the Act to these four plants.

DATES: Comments from all interested parties must be received by December 1, 1995. Public hearing requests must be received by November 16, 1995.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Field Office, 2730 Loker Avenue West, Carlsbad, California 92008. Comments and materials received will be available for

public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Gail Kobetich at the above address (telephone 619/431–9440).

SUPPLEMENTARY INFORMATION:

Background

Berberis nevinii (Nevin's barberry), *Ceanothus ophiochilus* (Vail Lake ceanothus), *Fremontodendron mexicanum* (Mexican flannelbush), and *Nolina interrata* (Dehesa beargrass) occur in restricted and localized populations from the interior foothills of Los Angeles, Riverside, and San Bernardino Counties, California, south through San Diego County to northwestern Baja California, Mexico. Most populations of these species are situated in relatively rugged terrain dominated by chaparral. *Fremontodendron mexicanum* is also known from closed cone coniferous forest dominated by *Cupressus forbesii* (Tecate cypress) while *Berberis nevinii*

is also associated with sandy washes dominated by alluvial scrub vegetation associations. *Ceanothus ophiochilus*, *F. mexicanum*, and *N. integrata* are often found in association with specific soil types.

The chaparrals of interior foothill southern California are dense shrub associations of moderate height that are dominated by *Adenostoma fasciculatum* (chamise), *Ceanothus* sp. (California lilac), *Rhamnus ilicifolia* (red berry), *Arctostaphylos* sp. (manzanita), *Quercus berberidifolia* (California scrub oak), *Rhus ovata* (sugar bush), *Malosma laurina* (laurel sumac), *Heteromeles arbutifolia* (toyon), *Eriogonum fasciculatum* (California buckwheat), and *Salvia mellifera* (black sage) (Beauchamp 1986, Holland 1986, and Wiggins 1980). Chaparral species are adapted to soils poor in nutrients, a cool, wet winter, and hot dry summers.

Many chaparral species are adapted to periodic wildfires. For example, seeds of some plants require fire before they can germinate. Other plants reproduce vegetatively by sprouting from the burned stumps of the parent plant. Fires that occur too frequently, however, burn young plants before they become reproductively mature, thus depleting the seed bank. Sustained fire prevention can cause plant communities to become senescent (old) and thus they may not survive an unpredictable fire to reproduce vegetatively (Boyd 1991).

Chaparral habitats occur on many different soil types but the plants under consideration herein, with the exception of *Berberis nevinii*, typically occur in clay soils derived from gabbro or metavolcanic bedrock (Boyd 1991, California Native Diversity Data Base (CNDDDB) 1992, Oberbauer 1991). *Berberis nevinii* grows in sandy habitats (Mistretta 1989b, CNDDDB 1992). Clay soils have unique physical and chemical properties that contribute to the disproportionately large number of rare plants found on this substrate, as compared to other soil types. For these reasons, clay soils are an important contributor to floristic diversity in the Riverside County and San Diego County region. The Vail Lake area in Riverside County has a large complex of highly unique habitats on clay soils formed from gabbro bedrock that support many sensitive or endangered plant and animal species including two of the species in this proposed rule (see Metropolitan Water District (MWD) 1991). The largest population of *Berberis nevinii* grows in this area adjacent to the type location of *Ceanothus ophiochilus* (California Native Diversity Data Base (CNDDDB) 1992). The ranges of all four species are restricted to small areas.

The population centers for two of the plants considered in this proposal, *Berberis nevinii* and *Ceanothus ophiochilus*, are located in the Vail Lake area of southwestern Riverside County. Populations of *B. nevinii* located outside the Vail Lake area are small and found in isolated patches in San Diego, San Bernardino, and Los Angeles Counties. Small populations of *C. ophiochilus* occur in the Agua Tibia Wilderness Area (Cleveland National Forest) adjacent to Vail Lake. *Nolina integrata* and *Fremontodendron mexicanum* are found only in southern San Diego County and northwestern Baja California, Mexico.

Discussion of the Four Species Proposed for Listing

Ceanothus ophiochilus was first discovered and collected by S. Boyd, T. Ross, and L. Arnseth in 1989 on Oak Mountain (also known as Vail Mountain), west of Vail Lake in Riverside County, California. It was formally described by Boyd *et al.* (1991) based on the Vail Lake collection and was subsequently accepted by Schmidt (1993). *Ceanothus ophiochilus* is a rounded, divaricately-branched (widely forked) shrub of the buckthorn family (Rhamnaceae), from 12 to 15 decimeters (dm) (4 to 5 feet (ft.)) in height with leaves about 3 to 7 millimeters (mm) (0.1 to 0.3 inches (in.)) long and 1.5 to 2.5 mm (0.1 in.) wide. Blue flowers, narrow leaves, and hornless fruit capsules differentiate *C. ophiochilus* from other members of the genus. This species resembles *Adenostoma fasciculatum* (chamise), the codominant shrub in its habitat. *Ceanothus ophiochilus* flowers from mid-February to March and fruit capsules mature from about May to mid-June (Boyd *et al.* 1991, Schmidt 1993).

Ceanothus ophiochilus is restricted to xeric (dry) habitats on ridgetops and north to northeast-facing slopes in chamise chaparral. It occurs on shallow soils formed from ultra-basic parent materials or deeply weathered gabbro, both of which are phosphorus deficient. This species is adapted to this harsh environment, whereas other members of the genus are not. *Ceanothus ophiochilus* hybridizes with the locally common *C. crassifolius* in places where the two species occur together. The strong association of *C. ophiochilus* with nutrient poor soils may be critical for the species to maintain reproductive isolation (Boyd *et al.* 1991).

Ceanothus ophiochilus is found at four localities in southwestern Riverside County. One population of *C. ophiochilus* occurs on privately owned land at Vail Lake. Estimates for the Vail

Lake population range from 3,000 to 5,000 plants; this population occupies about 8 hectares (ha) (20 acres (ac.)) within a 16 ha (40 ac.) area (Boyd 1991). Individual plants within the Vail Lake population exhibit indications of hybridization with *C. crassifolius*. Large populations of *C. crassifolius* are present approximately one-half mile south and east of the Vail Lake *C. ophiochilus* population (Boyd *et al.* 1991). The remaining three populations exist on land managed by the Forest Service, where over 4,000 plants exist within about 14 ha (35 ac.) of the Agua Tibia Wilderness Area. These populations are scattered along borders of creeks and dry canyons, and sometimes on gabbro soils (Shaffer 1993). At least two of the three Agua Tibia populations are hybridizing with *C. crassifolius* and these populations may represent hybrid swarms. The third Agua Tibia population consists of plants that are too young to determine the degree of hybridization taking place (Shaffer 1993; Steve Boyd, Rancho Santa Ana Botanical Garden, pers. comm. 1995). While these populations evidently are not pure *C. ophiochilus*, the Service continues to recognize their importance to the long-term survival of the species. These populations are important because they represent about 50 percent of the known acreage of the species and a significant number of individuals, and because conservation actions for *C. ophiochilus* would be unnecessarily limited to a single location.

Fremontodendron mexicanum, a member of the cacao family (Sterculiaceae), is a small tree or shrub with evergreen, palmately lobed leaves, 25 to 50 mm (1 to 2 in.) wide. The inflorescence is about 60 mm (2.4 in.) wide, and lacks petals. The showy orange sepals, which are reddish toward the bases, distinguish *F. mexicanum* from *F. californicum*, which has yellow sepals. The seeds of *F. mexicanum* are quite distinctive from other species of *Fremontodendron* (Kelman 1991). *Fremontodendron mexicanum* also has a unique petiole (leaf stalk) internal structure that is unlike that found in any other member of the family (Kelman 1991). Reliable distribution records for *Fremontodendron mexicanum* indicate that this species is found in southern San Diego County and northern Baja California, Mexico between 300 and 1,000 meters (m) (900 to 3,000 ft.) in elevation. This species blooms from March to August and occurs primarily in closed cone coniferous forest and southern mixed chaparral often in association with metavolcanic soils

(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 (CNNDDB 1992). The total number of remaining plants of *F. mexicanum* in the United States is estimated to be fewer than 100 (CNNDDB 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, CNNDDB 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 Cochran, 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 (CNNDDB 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 (CNNDDB 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, CNNDDB 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 (CNNDDB 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).

Nolina interrata is a dioecious (male and female flowers on separate plants) perennial with an underground stem that forms a woody platform and produces many aerial rosettes of leaves. Each rosette consists of 10 to 45 lance-linear, glaucous (covered with a whitish powder) leaves with minutely serrate margins. In some years, rosettes produce a single stalk 1 to 2.5 m (3 to 7.5 ft.) tall with an elongate, compound panicle inflorescence at its apex. The flowers are minute (2 to 4 mm (0.1 to 0.2 in.)) and creamy white. *Nolina interrata* can be distinguished by its short, thin-stalked panicle, which has inconspicuous bracts, and by the absence of any visible above-ground trunk or stem bearing individual rosettes of leaves, a greatly reduced number of leaves per rosette, and minimally expanded leaf bases. It can be distinguished from *Yucca* species by the absence of a rigid spinose leaf tip and leaves with shredding margins. In addition, *Yucca* species have larger flowers that branch from a single spike rather than a panicle (Dice 1988, 1993).

Nolina interrata grows in chaparral habitat commonly associated with *Adenostoma fasciculatum* (chamise), *Helianthemum scoparium* (peak rush rose), *Salvia clevelandii* (Cleveland sage), and *Tetradococcus dioicus* (San Diego button bush). *Nolina interrata* is often associated with other rare plants such as *Senecio ganderi* (Gander's butterweed), *Acanthomintha ilicifolia* (San Diego thornmint), *Monardella hypoleuca* ssp. *lanata* (felt-leaved monardella), and *Fritillaria biflora* (chocolate lily) (Oberbauer 1979). The association of *N. interrata* with these species reflects the distribution of clay soils formed from gabbro soils in the region (Oberbauer 1979, 1991, Beauchamp 1986). *Nolina interrata* reproduces primarily by asexual means and it does not flower every year; this adaptation may compensate for its lack of consistent flowering. It also may require fire or other disturbance to induce flowering.

The total population size of *Nolina interrata* is about 9,000 plants. There are nine populations of *N. interrata* in San Diego County, all within a 6 square mile (15.6 square kilometer (km)) area in the Dehesa Valley, immediately east of El Cajon, California. There are no records of extirpated populations. About one-third to one-half of the known populations are protected on a reserve managed by The Nature Conservancy at McGinty Mountain. Another large population, located near Sycuan Peak, is owned by two private landowner consortiums. The remaining few populations are small and occur on

private land (Oberbauer 1979, CNDDDB 1992).

Nolina interrata is known from 3 localities in Baja California and ranges as far south as Ensenada (Rancho de la Cruz) in Baja California, Mexico (Fred Hrusa, University of California at Davis, *in litt.* 1993). One population exists about 16 km (10 miles) northeast of La Mision. Both of these disjunct Mexican populations have fewer than 25 individuals each. Another population has recently been discovered closer to the United States border and it appears to be of comparable size (Jim Dice, CDFG, pers. comm. 1995).

Previous Federal Action

Federal government action on the four plant taxa considered in this rule began as a result of section 12 of the Endangered Species Act of 1973, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, and presented to Congress on January 9, 1975, recommended *Berberis nevinii*, *Fremontodendron mexicanum*, and *Nolina interrata* for endangered status. The Service published a notice in the Federal Register on July 1, 1975 (40 FR 27823), of its acceptance of the report as a petition within the context of section 4(c)(2) (now section 4(b)(3)(A)) of the Act, and of the Service's intention thereby to review the status of the plant taxa named therein, including *B. nevinii*, *F. mexicanum*, and *N. interrata*. On June 16, 1976, the Service published a proposal in the Federal Register (42 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. *Berberis nevinii*, *Fremontodendron mexicanum*, and *Nolina interrata* were included in this Federal Register proposal.

General comments received in relation to the 1976 proposal were summarized in an April 26, 1978, Federal Register publication (43 FR 17909). The Endangered Species Act amendments of 1978 required all proposals over 2 years old to be withdrawn, although a 1-year grace period was given to these proposals. In the December 10, 1979, Federal Register (44 FR 70796), the Service published a notice of withdrawal for that portion of the June 16, 1976, proposal that had not been made final, along with four other proposals that had expired.

The Service published an updated notice of review of plants in the Federal Register on December 15, 1980 (45 FR 82480). This notice included *Berberis*

nevinii, *Fremontodendron mexicanum*, and *Nolina interrata* as category 1 candidate taxa (species for which data in the Service's possession are sufficient to support a proposal for listing). On November 28, 1983, the Service published a supplement to the Notice of Review in the Federal Register (48 FR 53640). This supplement treated *F. mexicanum* as a category 2 candidate species (species for which data in the Service's possession indicates listing may be appropriate, but for which additional biological information is needed to support a proposed rule), whereas *B. nevinii* and *N. interrata* remained as category 1 species. The listing status of these species has remained unchanged since the 1983 Notice of Review.

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended in 1982, requires the Secretary to make findings on pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further requires that all petitions pending on October 13, 1982, be treated as having been newly submitted on that date. This was the case for *Berberis nevinii*, *Fremontodendron mexicanum*, and *Nolina interrata* because the 1975 Smithsonian report had been accepted as a petition. On October 13, 1983, the Service found that the petitioned listing of these species was warranted, but precluded by other pending listing proposals of higher priority, pursuant to section 4(b)(3)(B)(iii) of the Act. Notification of this finding was published in the Federal Register on January 20, 1984 (49 FR 2485). Such a finding requires the petition to be recycled, pursuant to section 4(b)(3)(C)(i) of the Act. The finding was reviewed in October of 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, and 1992.

The Service made a final "not warranted" finding on the 1975 petition with respect to *Fremontodendron mexicanum* and 864 other species in the December 9, 1993, Federal Register (58 FR 64828-45). The species was thus retained under Category 2 on the basis that it may be subject to extinction or endangerment from uncontrolled loss of habitat, from other man-caused changes to its environment, or extinction due to low numbers (58 FR 64840). Since 1993, the Service has completed or obtained survey and other data that adequately describe those factors that are placing *F. mexicanum* at risk of extinction. The Service has proceeded to propose this species along with *Berberis nevinii*, *Nolina interrata*, and *Ceanothus ophiochilus* that occupy the same

general distribution in southern California.

On December 14, 1990, the Service received a petition dated December 5, 1990, from Mr. David Hogan of the San Diego Biodiversity Project, to list *Nolina interrata* as an endangered species (Hogan, *in litt.* 1990). The petitioner also requested the designation of critical habitat for this species. Since *N. interrata* was included in the 1975 Smithsonian Institution Report, the Service regards the 1990 petition as a second petition for the same action.

On September 16, 1991, the Service received a petition dated September 13, 1991, from Mr. Steve Boyd of the Rancho Santa Ana Botanic Garden, to list *Ceanothus ophiochilus* as an endangered species (Boyd 1991). The Service published a 90-day finding in the Federal Register on August 10, 1992 (57 FR 37513), that substantial information was presented in the petition to indicate that the requested action may be warranted. This species was included as a category 2 species in the September 30, 1993, Notice of Review (50 CFR 51144). This proposed rule constitutes the 12-month finding on this petitioned action.

On July 29, 1983, *Nolina interrata* was included in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES is a treaty established to prevent international trade that may be detrimental to the survival of plants and animals.

Summary of Factors Affecting the Species

Section 4 of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Ceanothus ophiochilus* S. Boyd, T. Ross and L. Arnseth (Vail Lake *ceanothus*), *Berberis nevinii* A. Gray (Nevin's barberry), *Fremontodendron mexicanum* Davidson (Mexican flannelbush), and *Nolina interrata* H. Gentry (Dehesa beargrass), are as follows:

A. *The present or threatened destruction, modification, or curtailment of their habitat or range.* The specific soil and/or hydrologic requirements of the four plant taxa considered herein, naturally limit their distribution to clay soils formed from gabbro and alluvial scrub (sandy washes

and terraces) within the chaparral plant community. Generally, urban development and mining have impacted these habitats more than other activities within the chaparral community because the terrain is more accessible than the typically rugged and boulder covered terrain of the surrounding chaparral.

A study conducted by the Metropolitan Water District of Southern California suggests that much of southwestern Riverside County will be converted to urban development within the decade (Monroe *et al.* 1992, California Department of Finance 1993). Urban development encroachment in the Vail Lake area of southwestern Riverside County threatens one of the two largest populations of *Berberis nevinii* and the only known population complex of *Ceanothus ophiochilus*. The Vail Lake area is included in a Community Plan, planned and approved by the County, which allows subdivision of parcels into 9-ha (20-acre) lots (Boyd 1991, Schaffer 1993). In 1995, a new land owner offered the Riverside County Habitat Conservation Agency (RCHCA) an option to acquire the portion (as a conservation bank) of the Vail Lake planned community that contains the *C. ophiochilus* population (see Factor D). However, the option is unlikely to be taken and the current land owner (a real estate management company) may sell the property to an entity, or multiple entities that may develop the property (Michelle Shaughnessy, Fish and Wildlife Service Biologist, pers. comm. 1995). *Berberis nevinii* populations at Vail Lake could be eliminated by development (Jeff David and Associates 1995). If the conservation bank is not adopted and if subdivision of this area occurs, several types of impacts would be expected in addition to the direct removal of *B. nevinii* and *C. ophiochilus* and their habitat. Fire management strategies for developed areas would impact the natural fire processes to which natural plant communities have become adapted (see Factor E below). Individual landowners are likely to convert existing habitat to gardens, lawns, and pastures. Development would introduce invasive plants that compete with these taxa, and degrade habitat quality as a result of conversion to later successional stages of plant communities (Boyd 1991).

Several other sources of habitat degradation also threaten *Berberis nevinii* and *Ceanothus ophiochilus* in the Vail Lake area of Riverside County. State Route 79 (SR 79) has been proposed for widening from two to four lanes and may impact some populations

of *B. nevinii* as well as promoting development in the area (Monroe *et al.* 1992). Grading for fire breaks can destroy populations and their habitat. For example, grading destroyed about 3 percent of the *C. ophiochilus* population at Vail Lake, north of SR 79 and 3 percent or more in the Agua Tibia Wilderness of the Cleveland National Forest, south of SR 79 (Boyd *et al.* 1989; Boyd 1991; S. Cochrane, *in litt.* 1993).

Of 32 known populations of *Berberis nevinii*, those occurring in alluvial scrub habitats have been the most heavily impacted (CNDDDB 1992). Most of these populations have been extirpated by urban development, road widening, or habitat degradation from excessive recreational use. The quality of the remaining populations is poor compared to historical accounts (Boyd 1987). The vast San Fernando Valley alluvial scrub habitat has been largely urbanized, but once supported numerous populations, including the type locality for *B. nevinii* (Boyd 1987).

Nolina interrata and *Fremontodendron mexicanum* are being affected by the same suite of threats that accompany the encroachment of urbanization described above. The Otay Ranch and BLM boundaries divide Cedar Canyon in southern San Diego County near the Mexican border, which is the only confirmed *F. mexicanum* population in the United States and consists of 2 groups of *F. mexicanum* (CNDDDB 1992). About 50 percent of the potentially occupied habitat of *F. mexicanum* exists on BLM land and about 50 percent is on private property designated as open space, which will be surrounded by residential development under the Otay Ranch Plan (Ogden Environmental and Energy Services, Inc. 1992). Habitat potentially occupied by *F. mexicanum* at Brown Field and Otay Lakes is degraded by four-wheel drive roads and deep gully erosion.

Over 50 percent of the population of *Nolina interrata* exists on private land zoned for development (Dice, pers. comm. 1995). The primary population of *N. interrata* at McGinty Mountain is under management by The Nature Conservancy, however, the remaining population occurs in subdivided private ownerships (CNDDDB 1993). Losses of *N. interrata* to easements and grading have already occurred at McGinty Mountain, and fragmentation and degradation of remaining habitat continues (Dice, pers. comm. 1995). The future of the very large Sycuan Mountain population is uncertain at the present even though the landowner possesses development entitlements and CDFG may purchase a portion of this population (Royce Riggan, RBR Associates, pers. comm.

1993). Some of the smaller populations are on land owned by sand-mining interests where mining-related activities, trash dumping, and access roads are destroying and degrading its habitat.

B. *Overutilization for commercial, recreational, scientific or educational purposes.* *Fremontodendron mexicanum*, *Berberis nevinii* and *Nolina interrata* are sold in the nursery trade. However, reportedly seed and cuttings of *F. mexicanum* and *B. nevinii* are derived from existing cultivars (Elena Benge, Tree of Life Nursery, San Juan Capistrano, California, pers. comm. 1995). Take of *N. interrata* plants from the wild for the nursery trade has been identified as a threat to the species (CDFG 1992). Access to most of the remaining locations of all four plant species is limited by private property boundaries and/or rugged terrain (CNNDDB 1992, unpublished Service data).

C. *Disease or predation.* No evidence suggests that disease or predation have affected the plant species under consideration herein.

D. *The inadequacy of existing regulatory mechanisms.* Existing regulatory mechanisms that could provide some protection for these species in the United States include: (1) listing under the California Endangered Species Act; (2) adequate consideration under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA); (3) local laws and regulations; (4) section 404 of the Federal Clean Water Act, and section 1603 of the California Fish and Game Code; (5) occurrence with other species protected by the Federal Endangered Species Act; (6) adequate consideration in State or regional conservation planning efforts such as the Natural Community Conservation Planning Program and other wide range multispecies efforts; (7) land acquisition and management by Federal, State, or local agencies, or by private groups and organizations; and (8) inclusion in Appendix I of CITES.

The California Fish and Game Commission has listed *Nolina interrata*, *Mahonia* (= *Berberis nevinii*), and *Ceanothus ophiochilus* as endangered under the Native Plant Protection Act (NPPA) (California Fish and Game Code, Div. 2, Chapter 10, section 1900 *et seq.*) and the California Endangered Species Act (CESA) (Div. 3, Chapter 1.5, section 2050 *et seq.*). *Fremontodendron mexicanum* is included on List 1B of the California Native Plant Society's Inventory of Rare and Endangered Plants, which, in accordance with section 1901, chapter 10 of the

California Fish and Game Code, makes it eligible for State listing. Although NPPA and CESA both prohibit the "take" of State-listed plants (Chapters 10 and 1.5, sections 1908 and 2080 respectively), these statutes appear to inadequately protect against the taking of such plants via habitat modification or land use change by the landowner. After the California Department of Fish and Game notifies a landowner that a State-listed plant grows on his or her property, State law requires only that the landowner notify the agency "at least 10 days in advance of changing the land use to allow salvage of such plant" (California Fish and Game Code, Chapter 10, section 1913).

The California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 *et seq.*) requires a full disclosure of the potential environmental impacts of proposed projects. The public agency with primary authority or jurisdiction over the project is designated as the lead agency, and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA Guidelines requires a finding of significance if a project has the potential to "reduce the number or restrict the range of a rare or endangered plant or animal" including those that are eligible for listing under NPPA and CESA. Once significant effects are identified, the lead agency has the option to require mitigation for effects through changes in the project or to decide that "overriding social and economic considerations" make mitigation infeasible (California Public Resources Code, Guidelines, section 15093). In the latter case, projects may be approved that cause significant environmental damage, such as destruction of endangered plant species. Protection of listed plant species under CEQA is, therefore, dependent upon the discretion of the lead agency.

While CEQA pertains to projects on non-Federal land, the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 to 4347) requires disclosure of the environmental effects of projects within Federal jurisdiction. Species that are listed by the State, but not proposed or listed as threatened or endangered by the Federal government, are not protected when a proposed Federal action is considered a "categorical exclusion." NEPA requires that each of the project alternatives recommend ways to "protect, restore and enhance the environment" and "avoid and minimize any possible adverse effects," when implementation poses significant

adverse impacts. However, it does not require that the lead agency select an alternative with the least significant impact to the environment (40 CFR, 1500 *et seq.*).

Land-use planning decisions, at the local level, are made on the basis of environmental review documents, prepared in accordance with CEQA or NEPA, which often do not adequately address "foreseeable future" or "cumulative" impacts to non-listed species and their habitat. As with section 404 permits described below, the Service's comments through the NEPA and CEQA review processes are only advisory.

In 1991, the State of California established the Natural Community Conservation Planning (NCCP) Act to address conservation needs throughout the state. Chaparral and closed-coned coniferous forest habitats and two of the four species (*Nolina interrata* and *Fremontodendron mexicanum*) are being considered under the Multiple Species Conservation Program (MSCP) plan. This program, under development by the City of San Diego, County of San Diego, other coastal cities, and private land owners, is a component of the NCCP program. A draft plan for the MSCP has been developed but has not been approved. As currently proposed, while the plan will benefit the species, it will not preclude listing of *F. mexicanum* because of extremely limited numbers of populations (1 confirmed in the United States) and individuals (fewer than 100). While protection of *N. interrata* would likely be adequate within those areas covered by the MSCP (3 populations), the implementation of the MSCP would not likely preclude the need for listing this species because significant populations occur on unprotected lands east of the MSCP planning area. The County of San Diego is in the process of planning for conservation in the eastern portion of the county, but a draft plan is not expected in the near future.

The Service is working with Riverside and San Bernardino counties to create multispecies plans that may benefit *Ceanothus ophiochilus* and *Berberis nevinii*. Both plans are in the planning stage and it is uncertain to what degree they will be successful in providing protection for these species. However, these multispecies plans will likely provide significant benefits to both species. While *B. nevinii* is distributed beyond San Bernardino and Riverside counties, the implementation of adequate biologically sound multispecies plans in these counties may fulfill Endangered Species Act

requirements for this species within these counties.

Section 404 of the Clean Water Act, administered by the U.S. Army Corps of Engineers (Corps), could provide for conservation or protection of *Berberis nevinii* populations along alluvial features. Alluvial scrub habitats, which historically supported *Berberis nevinii*, have been reduced in extent by 95 percent due to urban and agricultural development (CNDDDB 1992, Rey-Vizgirdas 1994). These habitats must be considered under CEQA or NEPA and may be regulated, in part, by the permitting processes of the Corps under section 404 of the Clean Water Act.

Under section 404 the Corps regulates, through a permitting program, the discharge of dredged or fill material into waters of the United States. Waters of the U.S. include lakes, rivers, streams and any wetlands adjacent to these features, as well as isolated wetland areas. However, upland (non-wetland) areas are not subject to regulation or protection under the Corps' regulatory program. Depending on the frequency and duration of inundation, soil characteristics and vegetative composition of *B. nevinii* habitat, potential habitat for the species may not be within the jurisdictional boundaries of section 404. As a result, any projects affecting such habitat likely would receive no environmental review.

Federal candidate species receive no special consideration under section 404. In addition, emergency flood control measures may circumvent compliance with these statutes. For example, as part of emergency measures, vegetation stripping occurred in Riverside and San Bernardino counties throughout the potential range of *B. nevinii* after flooding subsided in the spring of 1993.

The Act may incidentally afford protection to the species under consideration in this proposal if they co-exist with species already listed as threatened or endangered under the Act. The least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Poliophtila californica californica*), southwestern willow flycatcher (*Empidonax traillii extimus*), arroyo toad (*Bufo microscaphus californicus*), slender-horned spinyflower (*Dodecahema leptoceras*), and Santa Ana River woolly star (*Eriastrum densiflorum ssp. sanctorum*) are listed as endangered or threatened under the Act and occur within the same geographical area as the species proposed herein. However, these species are not found in the same habitat as three of the proposed plant taxa. Though *Berberis nevinii* is known to occur in alluvial fan scrub which is

also known to be occupied by *D. leptoceras*, and *E. densiflorum ssp. sanctorum*, these species are not known from any specific site where *B. nevinii* also occurs.

The Nature Conservancy has acquired lands on Sycuan Peak and McGinty Mountain in San Diego County, which protect part of the population of *Nolina interrata* (CDFG 1992), however the amount of habitat acquired is not adequate to ensure protection of the species. Acquisition of lands to protect *Berberis nevinii* and *Fremontodendron mexicanum* has been proposed by the Bureau of Land Management (1992), but the action has not yet been implemented. These actions would increase protection for a small segment of the *B. nevinii* population, and all of the known populations of *F. mexicanum* in the United States.

The proposed land acquisitions and management practices discussed above would protect significant portions of the populations of the plant species considered herein, and the Service supports their implementation. However, these actions are only proposed and the likelihood of their implementation is uncertain. Even if implemented, they would not eliminate threats due to an alteration of the natural fire periodicity, habitat fragmentation, and randomly occurring natural events (discussed below). Significant portions of these plant populations would still not have appropriate management or would be outside the proposed areas of acquisition (with the exception of *F. mexicanum*).

E. *Other natural or manmade factors affecting their continued existence.* Fire management practices are adversely affecting *Ceanothus ophiochilus*, *Berberis nevinii*, *Nolina interrata*, and *Fremontodendron mexicanum* because the habitat requirements for these species depend upon natural fire patterns. Alteration of natural fire periodicity can have various adverse effects on plants that evolved to survive in an ecosystem that included natural fires. Human population increases are generally accompanied by increased incidence of local accidental fires. As regional population density continues to increase, fire suppression measures are intensified in surrounding undeveloped areas. The natural period between fires in these areas then may be lengthened. Also, during fire events, bulldozers are used to scrape fire breaks through vegetation to stop the advance of a fire. Fire breaks may increase erosion on slopes which may slow chaparral (and species) recovery.

Although *Ceanothus ophiochilus* is dependent on occasional fires for seed germination, it does not reproduce vegetatively after a fire. Very high fire frequencies prevent newly germinated plants from reaching reproductive maturity and will result in population declines or extirpation once the underground seed bank has been depleted.

In other cases, the reduced frequency of fire due to fire suppression programs can adversely affect the viability of plant populations by reducing genetic diversity. While frequent fires are a threat to the survival of *Ceanothus ophiochilus*, fire suppression would also represent a threat to this species because it would inhibit seed germination. Therefore, controlled burns may be necessary, in some cases, to maintain population vigor and rejuvenation (Boyd 1991).

Likewise, flowering of *Nolina interrata* is stimulated by fire. In the absence of fire, it reproduces primarily by cloning a new plant from its underground caudex. Genetic diversity for *N. interrata* can only be maintained if the plant flowers and reproduces sexually. One population is cloned from a single female plant. If populations are entirely female, pollen from disjunct populations would be required for flower fertilization. However, flowers in disjunct populations may not bloom simultaneously since flowering is, in part, dependent upon fire (Dice 1989).

The effects of altered fire frequencies on *Berberis nevinii* are not known. Basal burls indicate that *B. nevinii* is able to stump sprout; however, vegetative propagation has been unsuccessful in cultivation. This species propagates in the wild by seed, but seed production and fertility are sporadic.

Hybridization threatens *Ceanothus ophiochilus* throughout its populations. Potential hybrids have been observed at the edge of the Vail Lake population, near the contact zone with adjacent metasedimentary substrates. The other three populations, located nearby in the Agua Tibia Wilderness Area, have been significantly affected by hybridization with *C. crassifolius*. At least 10 to 15 percent of two of the Agua Tibia populations represent pure hybrid individuals and it is likely that a large portion, or possibly all of the individuals in these populations are introgressed to some degree (Shaffer 1993). The hybridization is likely the result of disturbance by fire and fire management practices such as bulldozed firebreaks (Chris Frazier, San Diego State University, *in litt.* 1993).

Risk of extinction from naturally occurring events threatens all of the

plant taxa discussed herein by virtue of their small population size and limited distribution (e.g., the extant population of *Fremontodendron mexicanum* is fewer than 100 individuals). Genetic viability is reduced in small populations, making them more vulnerable to extinction by manmade or natural events. Because *N. interrata* reproduces by cloning, the status of genetic diversity in the remaining populations is unknown. In addition, Barrett and Kohn (1991) maintain that characteristics such as low reproductive success may be the result of random genetic drift. Random genetic drift is the random change in the gene frequency of a population due to "reshuffling" of gametes from generation to generation. This effect is amplified in small isolated populations and can result in the prevalence of detrimental characteristics in a population. The potential for local extirpation owing to small population size can be exacerbated by environmental conditions such as the recent drought. A single random event occurring in a population center can decimate a species beyond recoverable numbers. In the case of *Berberis nevinii*, most individuals are concentrated in one locality in the Vail Lake area of Riverside County (CNDDB 1992). The species is extremely vulnerable because its low reproductive success rate (Mistretta 1989a) and disjunct distribution decrease its ability to recover from naturally occurring events.

Ceanothus ophiochilus occurs only in southwestern Riverside County. A few thousand individuals or less exist at each of three or four localities (Shaffer 1993). Hybridization with *C. crassifolius* may reduce the effective reproductive population and intensify the adverse effects of random genetic drift in the Agua Tibia populations (Barrett and Kohn 1991). Due to the very small number of individuals and the verified existence of only one U.S. population (CNDDB 1992), *Fremontodendron mexicanum* is subject to the same adverse genetic and naturally occurring random effects as *C. ophiochilus* (Barrett and Kohn 1991). One of the Dehesa Valley populations of *Nolina interrata* is considered to be a single female clone (Dice, pers. comm. 1995). Cloning makes *N. interrata* more vulnerable to extinction from naturally occurring events, particularly when most of the populations are found at only one location (Oberbauer 1979).

In summary, the decline of these species' ranges and populations are attributable to loss or adverse modification of habitat by urban development. The remaining habitat is more vulnerable to natural and human-

caused threats because it is fragmented and disjunct. Recolonization of burned or modified habitats is unlikely because of the long dispersal distance from other, if any, populations. Edaphic (soil-related) endemism, a trait of all of these species, also limits areas suitable for colonization. Currently healthy populations are more subject to disease and disturbance because of the lack of gene flow from other populations due to isolation. The small numbers and concentrated populations of all these species also make them vulnerable to extinction from naturally occurring events. Vandalism and inadequate regulatory mechanisms exacerbate the threats arising from otherwise lawful activities. The cumulative effects of these multiple threats have placed two of these species in danger of extinction, and two in danger of potential extinction.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in determining to propose this rule. Based on this evaluation, the preferred action is to list *Berberis nevinii* and *Fremontodendron mexicanum* as endangered. Other alternatives to this action were considered but not preferred because not listing these species, or listing them as threatened would not provide adequate protection and would not be in keeping with the purposes of the Act. Both of these species exist in small isolated populations. The entire population of *Fremontodendron mexicanum* is estimated to contain less than 100 plants. Urbanization of surrounding areas and fire management practices threaten both of these species with extinction throughout their ranges.

The preferred action for *Nolina interrata* and *Ceanothus ophiochilus* is to list these taxa as threatened. While *N. interrata* and *C. ophiochilus* are not in danger of extinction throughout all or a significant portion of their ranges, they are likely to become endangered species within the foreseeable future. Both species are fire-dependent for successful proliferation, and disruption of the natural fire regime can prohibit future generations from establishing. Continued hybridization of *C. ophiochilus* populations will impair their reproductive success and alter the genetic makeup of the species.

Critical habitat is not being proposed for these species, as discussed below.

Critical Habitat

Critical habitat, as defined by section 3 of the Act, is: (i) the specific areas within the geographical area occupied

by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for these species at this time. Service regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist—(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

The Service finds that designation of critical habitat for *Berberis nevinii*, *Ceanothus ophiochilus*, *Fremontodendron mexicanum*, and *Nolina interrata* is not prudent for these species at this time. The additional protection provided by the designation of critical habitat is achieved through section 7 of the Act which requires consultation with the Service on any projects or activities authorized, funded or carried out by Federal agencies. While actions by the U.S. Army Corps of Engineers, the Forest Service, or may affect some populations of these species, the majority of the populations of these species are on private land with little or no Federal involvement. Therefore, the designation of critical habitat for these taxa would not appreciably benefit the species.

In addition, the publication of precise maps and descriptions of critical habitat in the Federal Register would make these plants more vulnerable to incidents of vandalism and, therefore, could contribute to the decline of these species. The threat of potential vandalism in response to listing a species has been identified by several sources (Oberbauer 1979, Beauchamp 1993) and may be applicable to others

given their occurrence on predominantly private lands. All Federal and state agencies and local planning agencies involved have been notified of the location and importance of protecting these species' habitat. Protection of these species' habitat will be addressed through the recovery process. Therefore, the Service finds that designation of critical habitat for these plants is not prudent at this time; such designation likely would not provide any additional benefit to these species beyond that provided through their listing as endangered or threatened species.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery plans be developed for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

Federal agencies expected to have involvement with *Berberis nevinii*, *Ceanothus ophiochilus*, *Fremontodendron mexicanum*, and *Nolina interrata* include the United States Forest Service (USFS), BLM,

Corps, Federal Highway Administration, and the Immigration and Naturalization Service. These agencies either administer lands containing these species or authorize, fund, or otherwise conduct activities that may affect these species.

The Act and its implementing regulations found at 50 CFR section 17.61, 17.62, and 17.63 set forth a series of general prohibitions and exceptions that apply to all endangered plants. With respect to the four plant taxa considered herein, all trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove and reduce to possession any such species from areas under Federal jurisdiction. In addition, the 1988 amendments (P.L. 100-478) to the Act make it illegal to maliciously damage or destroy any such species on areas under Federal jurisdiction or remove, cut, dig up, damage or destroy any such species in knowing violation of any State law or regulation, including State criminal trespass law. Certain exceptions apply to agents of the Service and State conservation agencies.

The Act and 50 CFR 17.62, 17.63 and 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered and threatened plants under certain circumstances. It is anticipated that trade permits will be sought and issued for at least two of the plant species considered herein that are common in cultivation, *Berberis nevinii* and *Fremontodendron mexicanum*. Requests for copies of regulations on listed plants and inquiries regarding them may be addressed the U.S. Fish and Wildlife Service, Ecological Services, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon, 97232-4181 (telephone 503/231-2063, FAX 503/231-6243).

Nolina interrata is included in Appendix I of CITES. CITES is a treaty established to prevent international trade that may be detrimental to the survival of plants and animals.

It is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable at the time a species is listed those activities that would or would not be likely to constitute a violation of section 9 of the Act. Such information is intended to clarify the potential impacts of a species' listing on proposed and ongoing activities within

the species' range. All four taxa have populations that occur on either USFS lands or lands managed by BLM. Collection, damage or destruction of these species on Federal lands would be prohibited, although in appropriate cases a Federal endangered species permit may be issued to allow collection. Such activities on non-Federal lands would constitute a violation of section 9 if conducted in knowing violation of California State law or regulations, or in violation of State criminal trespass law.

Three of the proposed species are of horticultural interest and both are currently in commercial trade, *Berberis nevinii*, *Fremontodendron mexicanum*, and *Nolina interrata*. Intrastate commerce is not prohibited under the Act. However, interstate and foreign commerce would require a Federal endangered species permit. However, 50 CFR Part 17.71(a) does not prohibit any activities with seeds of cultivated threatened species provided that a statement that the seeds are of "cultivated origin" accompanies the seeds or their container during the course of the activity. Other than possible interstate commerce by the public that would be affected by this proposed listing, the Service is not aware of any other activities being conducted by the public that would be affected by this proposal and result in a violation of section 9. Questions regarding whether specific activities would constitute a violation of section 9 should be directed to the Field Supervisor of the Carlsbad Field Office (see ADDRESSES section).

Public Comments Solicited

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial, or other relevant data concerning any threat (or lack thereof) to *Berberis nevinii*, *Ceanothus ophiochilus*, *Fremontodendron mexicanum*, and *Nolina interrata*;

(2) The location of any additional populations of these species and the reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of these species; and

(4) Current or planned activities in the subject area and their possible impacts on these species.

The final decision on this proposal will take into consideration the comments and any additional information received by the Service, and such communications may lead to a final regulation that differs from this proposal.

The Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of the proposal in the Federal Register. Such requests must be made in writing and addressed to the Field Supervisor of the Carlsbad Field Office (see ADDRESSES section).

National Environmental Policy Act

The Fish and Wildlife Service has determined that Environmental Assessments and Environmental Impact

Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited

A complete list of all references cited herein is available upon request from the U.S. Fish and Wildlife Service, Carlsbad Field Office (see ADDRESSES above).

Author

This proposed rule was prepared by the staff of the Carlsbad Field Office (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, the Service hereby proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Section 17.12(h) is amended by adding the following, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants, to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *
(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
*	*	*	*	*	*	*	*
Flowering Plants							
*	*	*	*	*	*	*	*
<i>Berberis nevinii</i>	Nevin's barberry	U.S.A. (CA)	Berberidaceae	E		NA	NA
*	*	*	*	*	*	*	*
<i>Ceanothus ophiochilus</i>	Vail Lake ceanothus ..	U.S.A. (CA)	Rhamnaceae	T		NA	NA
*	*	*	*	*	*	*	*
<i>Fremontodendron mexicanum.</i>	Mexican flannelbush ..	U.S.A. (CA), Mexico ..	Sterculiaceae	E		NA	NA
*	*	*	*	*	*	*	*
<i>Nolina interrata</i>	Dehesa beargrass	U.S.A. (CA), Mexico ..	Liliaceae	T		NA	NA
*	*	*	*	*	*	*	*

Dated: September 20, 1995.
John G. Rogers,
Acting Director, Fish and Wildlife Service.
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DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
50 CFR Part 676
[I.D. 092695B]
Limited Access Management of Federal Fisheries In and Off of Alaska; Amendments

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of availability of amendments to fishery management plans; request for comments.

SUMMARY: NMFS announces that the North Pacific Fishery Management Council (Council) has submitted Amendment 32 to the Fishery Management Plan (FMP) for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (BSAI) and Amendment 36 to the Fishery Management Plan for Groundfish of the Gulf of Alaska (GOA). These amendments are necessary to facilitate full utilization of the allocated resources managed under the Individual Fishing Quota (IFQ) Program for the Pacific