
DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
50 CFR 17
Endangered and Threatened Wildlife and Plants: Proposed Endangered Status and Critical Habitats for Seven Plant and One Insect Species in Ash Meadows, Nevada and California

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule and finding on a petition.

SUMMARY: The Service proposes to determine seven plant and one insect species to be Endangered species and to designate their Critical Habitats. This action is being taken because these species are restricted to the Ash Meadows region and ground water basin in Nye County, Nevada, and Inyo County, California, where they are facing intensifying threats. Imminent land development for housing subdivisions, clearing of land for road construction and agricultural purposes, pumping of ground water, and diversion of surface flows threaten the integrity of the species' habitat and therefore their survival. The proposed rule constitutes the Service's findings on a petition to list the plants. The Service seeks data and comments from the public on this proposal.

DATES: Comments from the public and the States of California and Nevada must be received by December 12, 1983. Public hearing requests must be received by November 28, 1983.

ADDRESSES: Interested persons or organizations can obtain information from and submit written comments to the Regional Director, U.S. Fish and Wildlife Service, Lloyd 500 Building, Suite 1692, 500 NE. Multnomah Street, Portland, Oregon 97232. Comments and materials received will be available for public inspection by appointment during normal business hours at the Service's Office of Endangered Species at the above address.

FOR FURTHER INFORMATION CONTACT: Mr. Sanford R. Wilbur, U.S. Fish and Wildlife Service, Suite 1692, Lloyd 500 Building, 500 NE. Multnomah Street, Portland, Oregon 97232 (phone 503/231-6131), or Mr. John L. Spinks, Jr., Chief, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (phone 703/235/1975).

SUPPLEMENTARY INFORMATION:
Background

The Ash Meadows region is a unique and diverse desert wetland located east of the Amargosa River in California and Nevada. This wetland is maintained by flow from several dozen springs and seeps which are fed by an extensive groundwater system which extends more than 100 miles northeast of Ash Meadows. Hundreds of plant and animal species, many of them endemic, are associated with this wetland and depend upon it for survival. The eight species that are the subjects of the proposal occur only in Ash Meadows. These eight species are briefly described below.

1. The spring-loving centaury (*Centaurium namophilum* Reveal, Broome, & Beatley var. *namophilum* Broome) was first recognized as a variety by Broome (1961). *Centaurium namophilum* was described by Reveal, Broome, and Beatley in 1973, although it had been collected as early as 1891 by Coville and Funston (Reveal, Broome, and Beatley, 1973). The spring-loving centaury is an erect annual reaching 4.5 dm in height and has pink flowers. It is found on "moist to wet clay soils along the banks of streams or in seepage areas" (Mozingo and Williams, 1980) and is often found with the Ash Meadows gumplant.

2. The Ash Meadows gumplant (*Grindelia fraxino-pratensis*, Reveal and Beatley) was described by Reveal and Beatley in 1971, although it had been collected as early as 1965 by Beatley (Reveal and Beatley, 1971). It is an erect biennial or perennial reaching 7 to 10 dm in height and has yellow inflorescences that have heads measuring 8 to 10 mm in diameter (Mozingo and Williams, 1980).

Its primary habitat is in saltgrass meadows along streams and pools but it occasionally occurs in alkali clay soils in drier areas (Cochrane, 1981), and its range includes portions of Nevada and California.

3. The Ash Meadows ivesia (*Ivesia eremica* (Coville) Rydberg) was first described as *Potentilla eremica* in 1892. It is a perennial with a tuft of leaves emerging from a woody root crown. The inflorescences bear few flowers and these have petals about 7 mm long. The Ash Meadows ivesia occurs only in Nevada in saline seep areas of light-colored clay uplands (Mozingo and Williams, 1981).

4. The Ash Meadows blazing star (*Mentzelia leucophylla* Brandegee) was described by Brandegee (1899) based on material collected by Purpus in 1898 (Reval, 1978a). It is a biennial or short-lived perennial with one to several white stems that reach a height of 5 dm, and its light yellow flowers occur in broad inflorescences (Mozingo and Williams, 1981). It occurs only in Nevada on sandy or saline clay soils along canyon washes and near springs and is often found with the Ash Meadows milk-vetch and the Ash Meadows sunray (Mozingo and Williams, 1981).

5. The Ash Meadows milk-vetch (*Astragalus phoenix* Barneby) was described in 1970, although it was collected as early as 1898 by Carl Anton Purpus (Barneby, 1970). It is "a low matted perennial forming mounds 40 to 50 cm across" and its "pinkish to purple flowers are borne on short, erect stems in the mat and commonly number only one or two per inflorescence" (Mozingo and Williams, 1981). The flowers are about 25 mm (1 inch) long. The Ash Meadows milk-vetch is found only in Nevada on "dry, hard, white, barren saline, clay flats, knolls, and slopes" (Mozingo and Williams, 1981).

6. The Ash Meadows sunray (*Encelopsis nudicaulis* (A. Gray) A. Nelson var. *corrugata* Cronquist) was described in 1972 from material collected by Cronquist in 1966 (Cronquist, 1972), although Mozingo and Williams (1981) reported that earlier collections were made by others. This perennial plant occurs in 1 to 4 dm high clumps and has floral heads borne singly on leafless flower stalks. The ray flowers have yellow corollas and the disks are 2 to 3.5 cm (.8 to 1.4 inches) across. It occurs only in Nevada in dry washes on whitish saline soil associated with outcrops of pale, hard limestone.

7. The Amargosa niterwort (*Nitrophila mohavensis* Munz and Roos) was first collected by J. C. and A. R. Roos and then described by Munz and J. C. Roos

in 1955. The plants are long-lived and low (up to 8 cm high) with small bright green leaves and small, inconspicuous flowers (Reveal, 1978b). It is found only in California on salt-encrusted alkaline flats at the south end of the Carson Slough near the Nevada border (Beatley, 1977).

8. The Ash Meadows naucorid (*Ambrysus amargosus* La Rivers) is an insect (Order Hemiptera, family Naucoridae) that was described in 1953 based on material collected by Ira La Rivers and T. Frantz in 1951 (La Rivers, 1953). It has been found only in Point of Rocks Springs and their outflow streams. It is a small aquatic insect reaching about 6 mm in length that is apparently unable to fly.

Many other plant and animal species are endemic to Ash Meadows. The Service proposed the Ash Meadows turban snail (*Fluminicola erythropoma*) as Threatened on April 28, 1976 (41 FR 17742); that proposal was withdrawn on December 10, 1979 (44 FR 70796) for administrative reasons as a result of the 1978 Amendments to the Endangered Species Act. Current evidence indicates that this species, as proposed, actually comprised more than one species. This area has an extraordinarily diverse freshwater mollush fauna, which is currently being studied by Dr. Dwight Taylor of Tiburon, California. Of special interest is the presence of two species flocks or complexes of snails which are found within a 5-mile radius within Ash Meadows and give Ash Meadows the highest concentration of endemic species in the United States. Most of these mollush species have not been scientifically described and named.

Five endemic fishes have been recorded from Ash Meadows. The Devil's Hole pupfish (*Cyprinodon diabolis*) was listed as Endangered on March 11, 1967 (32 FR 4001), and the Warm Springs pupfish (*Cyprinodon nevadensis pectoralis*) was listed as Endangered on October 13, 1970 (35 FR 16047). The Ash Meadows Amargosa pupfish (*Cyprinodon nevadensis mionectes*) and the Ash Meadows speckled dace (*Rhinichthys osculus nevadensis*) were listed as Endangered by an emergency rule published on May 10, 1982 (47 FR 19995). Emergency protection for these two species was extended by a second emergency rule published on January 5, 1983 (48 FR 608) that also included Critical Habitats. Published simultaneously with this second emergency rule was a formal proposal for Endangered status and Critical Habitats under normal listing procedures for the Ash Meadows speckled dace and the Ash Meadows Amargosa pupfish (48 FR 817). A fifth

endemic Ash Meadows fish species, the Ash Meadows killifish (*Empetrichthys merriami*), is now extinct.

One additional plant species not included in the present proposal is the Tecopa bird's beak (*Cordyanthus tecopensis*). This species has a wider but still restricted range that includes Ash Meadows.

Early homesteaders attempted to farm Ash Meadows using the free-flowing water from the springs for irrigation. These efforts failed because the salty, clay soils were not suitable for crops. Agricultural practices in the late 1960's and early 1970's resulted in large tracts of land being plowed and the installation of groundwater pumps and diversion ditches to support a cattle-feed operation. These practices resulted in the destruction of many populations of plants and animals and their wetland habitats by alteration of the land surface and lowering of the water table. In 1976, the Supreme Court limited the amount of groundwater pumping in Ash Meadows to ensure sufficient water levels in the only known habitat of the Endangered Devil's Hole pupfish. The agricultural interests in Ash Meadows sold approximately 23 square miles of land to a real estate developer, Preferred Equities Corporation (PEC), in 1977.

While the Bureau of Land Management (BLM) is the principal landowner in Ash Meadows, PEC owns most of the surface water rights, which are currently designated for municipal use. Ground water pumping would be required to develop and support municipal and agricultural activities.

The initial phase of construction, when completed, would result in the destruction of Crystal Pool, Point of Rocks Springs, and Jack Rabbit Spring and possibly lower the level of other springs by ground water pumping. PEC's activities have already substantially altered surface flows and spring hole morphometry at these sites. PEC has recently constructed a multi-lane road which connects Ash Meadows at Point of Rocks Springs with Pahrump Valley, a continuing section of road (2 miles long and 80 feet wide) north of Jack Rabbit Springs, and an additional road (1.5 miles long and 30 feet wide) east of Crystal Pool. In addition, approximately 1,000 acres of cotton have been planted west of Point of Rocks Springs.

The terrestrial habitats of the Ash Meadows ecosystem are as fragile as the aquatic habitats. The endemic plant species are dependent upon the unique hydrological characteristics of the basin and nearly all require undisturbed soils for sustenance and propagation.

Previous governmental actions affecting these species began with 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, was presented to Congress on January 9, 1975. On July 1, 1975, the Director published a notice in the **Federal Register** (40 FR 27823) of his acceptance of the report of the Smithsonian Institution as a petition within the context of Section 4(c)(2) of the Act, and of his intention thereby to review the status of the plant taxa named within. These plant taxa included the *Amargosa niterwort*, *spring-loving centaury* (under the scientific name *Centaurium namophilum*), *Ash Meadows gumplant*, *Ash Meadows blazing star*, *Ash Meadows ivesia*, *Ash Meadows milk-vetch*, and the *Ash Meadows sunray*.

On June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be Endangered species pursuant to Section 4 of the Act. This list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and the Service in response to House Document No. 94-51 and the July 1, 1975, **Federal Register** publication. That proposed rule included proposals of Endangered status for the *spring-loving centaury* (under the scientific name *Centaurium namophilum*), *Ash Meadows ivesia*, *Ash Meadows blazing star*, *Ash Meadows milk-vetch*, and the *Amargosa niterwort*. General comments on this proposal are summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 placed time limits for final action on proposed listings. On December 10, 1979, the Service published a notice of the withdrawal of the June 16, 1976, proposal (44 FR 79796) because the time period for final action on the proposal had expired.

On December 15, 1980, the Service published a notice of review of plant taxa (45 FR 82480). That notice identified the 7 plant taxa that are subjects of the present proposal as taxa for which the Service had sufficient biological information to support their being listed as Endangered or Threatened species.

On February 24, 1983, while the present proposed rule was being prepared, the Service received a petition from the Northern Nevada Native Plant

Society. This petition requested that the *Amargosa niterwort*, *Ash Meadows milk-vetch*, *Ash Meadows blazing star*, *spring-loving centaury*, and the *Ash Meadows sunray* be listed as Endangered and the *Ash Meadows gumplant* be listed as Threatened. Publication of the present proposed rule satisfies the requirement of Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended in 1982, that a finding on a petition to revise the lists of Endangered and Threatened species be published within 12 months of the receipt of the petition. Endangered status, rather than Threatened, is being proposed for the *Ash Meadows gumplant* because the Service believes that the water demands of PEC's proposed development would result in the extinction of all native plant species, including the *Ash Meadows gumplant*, that are restricted to Ash Meadows.

Summary of Factors Affecting the Species

The Service's listing regulations (codified at 50 CFR Part 424; under revision to accommodate 1982 amendments) provide for a review of the five factors below when listing (or reclassifying or delisting) a species:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; and
- (E) Other natural or manmade factors affecting its continued existence.

These factors, and their application to the subject species, are as follows:

(A) *The present or threatened destruction, modification, or curtailment of its habitat or range.* The subjects of this proposed rule occur only in Ash Meadows and depend on the integrity of this fragile ecosystem and flows from the Ash Meadows basin aquifer for their survival. A significant portion of plant habitat in Ash Meadows was eliminated in the 1960's when the Carson Slough was drained to facilitate peat mining. Following the cessation of peat mining, plowing for large-scale farming by Spring Meadows, Inc. removed most of the native plants in the northern portion of Ash Meadows and thereby destroyed most of the habitat of the *spring-loving centaury*, *Ash Meadows gumplant*, *Ash Meadows ivesia*, *Ash Meadows blazing star*, *Ash Meadows milk-vetch*, and the *Ash Meadows sunray*. Although *Amargosa niterwort* habitat was not plowed, free-flowing water to its habitat was halted by upstream plowing and

reduction of spring flows resulting from ground water pumping.

The imminent threat to the existence of these species is the proposed development of Ash Meadows by PEC into a residential, recreational, industrial, and agricultural community. Construction activities would clear essential habitat, directly extirpating populations of these species, and adversely affect remaining populations by altering surface drainage patterns. Human habitation would require great quantities of potable water. Utilization of surface outflows from springs and pumping of the aquifer would destroy down-gradient wetlands by reducing or eliminating surface flows, lowering the water table, and interfering with ground water recharge. All of these species are directly dependent upon these sources of water. The *Ash Meadows naucorid* is an aquatic insect and would become extinct if its remaining spring habitat were pumped dry. The *spring-loving centaury*, *Ash Meadows gumplant*, and *Ash Meadows ivesia* require saturated soils near springs and their outflows and in seeps. The other four plant species occur in somewhat drier habitats, but still owe their existence to the availability of water near or at the soil surface.

Ground water pumping may seriously deplete water levels (directly and indirectly) upon which these species depend. In the past, pumping of ground water from nearby wells for agriculture lowered the water level in Devil's Hole in Ash Meadows and caused a severe decline in the population of the Endangered Devil's Hole pupfish; continued pumping could have caused the extinction of the species. In 1976, the U.S. Supreme Court ruled (*United States vs. Cappaert et al.*) that a minimum water level must be maintained to protect the Devil's Hole pupfish. Devil's Hole is the most sensitive spring in Ash Meadows, but all the springs are interconnected. The impact of ground water pumping from wells south of Devil's Hole appears to be greater than from those located in the north. Because agricultural and municipal activities require large volumes of water, and pumping of ground water from the northern areas may be necessary to supplement flows from the south, it is expected that the proposed development by PEC would create a demand for water throughout Ash Meadows.

Recent construction activities in Ash Meadows have continued the destruction of native plant and animal habitat that began with early agricultural activities. A significant area of land has already been altered by road

construction in the vicinity of Crystal Pool and Point of Rocks and Jack Rabbit Springs. If development by PEC is completed, clearing of land will eliminate the following percentages of the Critical Habitats proposed in this rule: spring-loving centaury, 37 percent; Ash Meadow gumplant, 26 percent; Ash Meadows ivesia, 45 percent; Ash Meadow blazing star, 37 percent; Ash Meadows milk-vetch, 30 percent; Ash Meadows sunray, 39 percent; Ash Meadows naucorid, 100 percent. The remaining habitats would continue to face the other threats, including reduction in ground water levels and spring flow, described in this proposed rule.

PEC's long-term development plans call for direct alteration of many of these springs with construction to progress in 3 phases in the following areas: Phase I—Crystal Pool; Phase II—Point of Rocks Springs; Phase III—Fairbanks spring complex. The Nye County Commission has already approved phases I and II, and work has begun. Further, PEC, as principal owner of water rights, has made application to the State of Nevada to divert water from many of the other Ash Meadows springs, which will destroy more riparian habitat.

Initial construction activities in late spring and summer of 1981 severely altered the watercourse of two springs (Point of Rocks and Bradford) and related spring hole morphometry. The outflow channels of Crystal Pool and King Pool (Point of Rocks Springs) have been modified to increase flows, resulting in the lowering of pool levels 1-1.5 feet and consequently decreasing riparian habitat. These activities have eliminated some habitat of the spring-loving centaury.

The preferred habitat of the Ash Meadows naucorid had been the gravel-bottom outflow of Point of Rocks Springs. That habitat has been eliminated by channelization so that this insect now only occurs in reduced numbers in the spring pools.

Many plant populations in Ash Meadows have been reduced by off-road vehicle traffic. Most of the Rogers Spring population of the Ash Meadows milk-vetch was destroyed by an off-road vehicle race in 1968.

The spring loving centaury once occurred at sites outside of Ash Meadows near Beatty, Nye County, Nevada, and in Inyo County, California, near Tecopa and at Furnace Creek in Death Valley. It has not been found recently at these sites and is now considered extinct outside of Ash Meadows.

(B) *Overutilization for commercial, recreational, scientific, or educational purposes.* The extremely small population levels to which the Ash Meadows naucorid has been reduced make that species vulnerable to collection for scientific purposes.

(C) *Disease or predation* (including grazing). The spring-loving centaury, Ash Meadows gumplant, and the Ash Meadows ivesia are grazed by cattle and feral horses. The Ash Meadows gumplant has been found to be 90% depleted within a fenced area where cattle and horses graze near Ash Meadows Rancho.

(D) *The inadequacy of existing regulatory mechanisms.* The State Forester Fire Warden of the Nevada Division of Forestry maintains a list of critically endangered plants. That list includes the spring-loving centaury, Ash Meadows gumplant, Ash Meadows milk-vetch, and the Ash Meadows blazing star. Other than providing recognition of these species' status, inclusion on this list provides no legal protection of the individual plants or their habitats. The Amargosa niterwort is listed as endangered on the State of California list of rare and endangered species. That designation does not protect this species from the major threat to its existence, interruption of the water supply for its habitat.

(E) *Other natural or man-made factors affecting its continued existence.* Trampling by cattle and/or feral horses is a threat to the native plants throughout Ash Meadows.

Critical Habitat

50 CFR Part 424 defines "Critical Habitat" to include areas within the geographical area occupied by the species at the time the species is listed which are essential to the conservation of the species and which may require special management considerations or protection and specific areas outside the geographic area occupied by the species at the time, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Proposed Critical Habitat for the spring-loving centaury is as follows:

Nevada, Nye County, Ash Meadows: SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 21; W $\frac{1}{2}$ NW $\frac{1}{4}$ S. 23; NW $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ S. 28; SE $\frac{1}{4}$ SE $\frac{1}{4}$ S. 34; SW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$ S. 35; T 17 S, R 50 E. SW $\frac{1}{4}$ S. 1; NE $\frac{1}{4}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NW $\frac{1}{4}$ S. 2; E $\frac{1}{2}$ NE $\frac{1}{4}$ S. 3; NE $\frac{1}{4}$ S. 7; SE $\frac{1}{4}$ SE $\frac{1}{4}$ S. 23; SE $\frac{1}{4}$ SW $\frac{1}{4}$ S. 24; T 18 S, R 50 E. NW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 7; S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ S. 18; NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ S. 19; E $\frac{1}{2}$ SW $\frac{1}{4}$ S. 20; N $\frac{1}{4}$ NW $\frac{1}{4}$ S. 29; NE $\frac{1}{4}$ NW $\frac{1}{4}$ S. 30; T 18 S, R 51 E.

These areas include moist to wet clay soils along banks of streams or in seepage areas.

Proposed Critical Habitat for the Ash Meadows gumplant is as follows:

California, Inyo County, Ash Meadows: NE $\frac{1}{4}$ S. 30 southwest of the Nevada-California boundary; E $\frac{1}{2}$ NW $\frac{1}{4}$ S. 30 southeast of Nevada-California boundary; SW $\frac{1}{4}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 30; T 26 N, R 6 E.

Nevada, Nye County, Ash Meadows: SE $\frac{1}{4}$ NW $\frac{1}{4}$ S. 26; W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 3; W $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{4}$ SE $\frac{1}{4}$ S. 35; T 17 S, R 50 E. N $\frac{1}{2}$ SW $\frac{1}{4}$ S. 1; N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 2; NE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ S. 3; SW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 4; E $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ S. 5; N $\frac{1}{2}$ NE $\frac{1}{4}$ S. 7; NE $\frac{1}{4}$ SE $\frac{1}{4}$ S. 10; W $\frac{1}{2}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 11; SW $\frac{1}{4}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$ S. 14; SW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 20; W $\frac{1}{2}$ SW $\frac{1}{4}$ and SE $\frac{1}{4}$ SW $\frac{1}{4}$ S. 20 northeast of the Nevada-California boundary, E $\frac{1}{2}$ NE $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$ S. 23; W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 24; NW $\frac{1}{4}$ NE $\frac{1}{4}$ S. 29 northeast of the Nevada-California boundary; T 18 S, R 50 E. SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 18; T 18 S, R 51 E.

These areas include saltgrass meadows along streams and pools or drier areas with alkali clay soils.

Proposed Critical Habitat for the Ash Meadows ivesia is as follows:

Nevada, Nye County, Ash Meadows: SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 21; S $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 35; T 17 S, R 50 E. SW $\frac{1}{4}$ S. 1; N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 2; NE $\frac{1}{4}$ NE $\frac{1}{4}$ S. 3; NW $\frac{1}{4}$ NE $\frac{1}{4}$ S. 12; N $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ S. 23; N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 24; T 18 S, R 50 E.

These areas include saline seep areas of light-colored clay uplands.

Proposed Critical Habitat for the Ash Meadows milk-vetch is as follows:

Nevada, Nye County, Ash Meadows: W $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 14; SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 21; NW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 22; NW $\frac{1}{4}$ S. 28; T 17 S, R 50 E. SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 1; NW $\frac{1}{4}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ NW $\frac{1}{4}$ S. 12; SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 13; W $\frac{1}{2}$ NW $\frac{1}{4}$ S. 24; T 18 S, R 50 E. SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 7; N $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$ S. 18; NE $\frac{1}{4}$ NW $\frac{1}{4}$ S. 19; T 18 S, R 51 E.

These areas include dry, hard, white, barren saline, clay flats, knolls, and slopes.

Proposed Critical Habitat for the Ash Meadows blazing star is as follows:

Nevada, Nye County, Ash Meadows: SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 15; S $\frac{1}{2}$ NE $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 21; NW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$ S. 22; NW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 23; NW $\frac{1}{4}$ NE $\frac{1}{4}$ S. 28; SE $\frac{1}{4}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ S. 35; SW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 36; T 17 S, R 50 E. NW $\frac{1}{4}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$ S. 1; NE $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ S. 2; N $\frac{1}{2}$ NE $\frac{1}{4}$ S. 11; NW $\frac{1}{4}$ S. 12; T 18 S, R 50 E.

These areas include sandy or saline clay soils along canyon washes and near springs and seeps.

Proposed Critical Habitat for the Ash Meadows sunray is as follows:

Nevada, Nye County, Ash Meadows: SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 15; SW $\frac{1}{4}$ NE $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 21; NW $\frac{1}{4}$ NE $\frac{1}{4}$ S. 22; E $\frac{1}{2}$ SE $\frac{1}{4}$ S. 34; SW $\frac{1}{4}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 35; T 17 S, R 50 E. SE $\frac{1}{4}$ S. 20; T 17 S, R 51 E. NW $\frac{1}{4}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 1; E $\frac{1}{2}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$, E $\frac{1}{2}$ SE $\frac{1}{4}$ S. 2; NE $\frac{1}{4}$ NW $\frac{1}{4}$ S. 12; E $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$ S. 13; T 18 S, R 50 E. SW $\frac{1}{4}$ SE $\frac{1}{4}$ S. 7; NW $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$ S. 18; T 18 S, R 51 E.

These areas include dry washes or whitish, saline soil associated with outcrops of pale whitish limestone.

Proposed Critical Habitat for the Amargosa niterwort is as follows:

California, Inyo County, Ash Meadows: NW $\frac{1}{4}$ SW $\frac{1}{4}$ S. 5; NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$ S. 6; NE $\frac{1}{4}$, E $\frac{1}{2}$ NE $\frac{1}{4}$ S. 7; NW $\frac{1}{4}$ S. 8; T 25 N, R 6 E.

These areas include salt-encrusted alkaline flats.

Proposed Critical Habitat for the Ash Meadows naucorid is Point of Rocks Springs, Ash Meadows, Nye County, Nevada.

Each of the above proposed Critical Habitats includes the entire known present range of the subject species. The activities that may adversely modify these Critical Habitats are described in the "Factors Affecting the Species" section of this proposed rule.

Effect of This Proposal if Published as a Final Rule

Endangered Species regulations already published in Title 50, § 17.21 of the Code of Federal Regulations set forth a series of general prohibitions and exceptions which apply to all Endangered animals. These prohibitions, in part, would make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale the Ash Meadows naucorid in interstate or foreign commerce. It also would be illegal to possess, sell, deliver, carry, transport, or ship any such wildlife which was illegally taken. Certain exceptions would apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving Endangered animal species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes or to enhance the propagation or survival of the species. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that

would be suffered if such relief were not available.

The Act and implementing regulations published in the June 24, 1977, **Federal Register** set forth a series of general trade prohibitions and exceptions which apply to all Endangered plant species. The regulations pertaining to Endangered plants are found at 50 CFR 17.61 and are summarized below.

With respect to the seven plant species included in this proposed rule, all trade prohibitions of Section 9(a)(2) of the Act, implemented by 50 CFR 17.61, would apply. These prohibitions, in part, would 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, or sell or offer for sale any of these plant species in interstate or foreign commerce. Certain exceptions would apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.62 provide for the issuance of permits, under certain circumstances, to carry out otherwise prohibited activities involving Endangered plant species.

Section 9(a)(2)(B) of the Act, as amended in 1982, states that it is unlawful to remove and reduce to possession Endangered plant species from areas under Federal jurisdiction. Permits for exceptions to this prohibition are available through Sections 10(a) and 4(d) of the Act, following the general approach of 50 CFR 17.72 until revised regulations are promulgated.

This rule, if made final, would allow development by Preferred Equities Corporation (PEC) to be met by enforcement action undertaken through Section 9 of the Endangered Species Act or civil injunction should such development jeopardize the existence of the Ash Meadows naucorid. Alteration of the surface or ground water levels in habitats supporting this species could likewise be countered by enforcement efforts.

If this proposal is published as a final rule, Section 7 of the Act would require Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of these species, and to ensure that their actions do not result in the destruction or adverse modification of the Critical Habitats of the species. Section 7 would also require Federal agencies to consult with the Secretary to ensure that these Section 7 requirements are fulfilled. Provisions for Interagency Cooperation are codified at 50 CFR Part 402.

Subsection 4(b)(8) of the Act requires that, to the maximum extent practicable, any proposal to designate Critical Habitat be accompanied by a brief description and evaluation of those activities which in the opinion of the Secretary may adversely modify such habitat if undertaken or may be impacted by such designation. Activities that may adversely affect these Critical Habitats include the activities carried out and planned by Preferred Equities Corporation (PEC) that would modify the springs and their outflows, disturb the land areas occupied by the plants, alter drainage patterns on which these plants depend, or draw down the water table to the extent that spring flows are reduced.

Activities that may be affected by the listing of these species as Endangered and designation of their Critical Habitats include PEC's activities in Ash Meadows. Listing these species as Endangered would not specifically preclude in their entirety housing, commercial, intensive agricultural, or industrial development in Ash Meadows. Full protection of these species would preclude a portion of the proposed PEC development. The exact extent of possible water conflict is currently unknown.

The total land area covered by the proposed Critical Habitats for these eight species is less than eleven square miles. Based on the best available scientific and commercial data, the Service believe that a smaller area for any of these species could result in extinction.

The Bureau of Land Management (BLM) has jurisdiction over nearly half of the areas that are included in these Critical Habitats. Present BLM activities are consistent with the conservation of these species and therefore will not be affected by this proposed action.

Subsection 4(b)(2) of the Act requires the Service to consider economic and other impacts of specifying a particular area as Critical Habitat. Therefore, an impact analysis will be prepared prior to the time of a final rule and will be used as the basis of a decision on whether or not to exclude any area from Critical Habitat for any of the species included in the rule. The Service is notifying Federal agencies that may have jurisdiction over the land and water under consideration in this proposed action. These Federal agencies and other interested persons or organizations are requested to submit information on economic or other impacts of this proposed action.

Public Comments Solicited

The Service intends that the rules finally adopted will be as accurate and effective as possible in the conservation of any Endangered or Threatened species. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, private interests, or any other interested party concerning any aspect of these proposed rules are hereby solicited. Comments particularly are sought concerning:

- (1) Biological, commercial, or other relevant data concerning any threat (or lack thereof) to the species included in this proposal;
- (2) The location of and the reasons why any habitat of these species should or should not be determined to be Critical Habitat as provided for by Section 7 of the Act;
- (3) Additional information concerning the range and distribution of these species;
- (4) Current or planned activities which may adversely modify the subject areas which are being considered for Critical Habitats; and
- (5) The foreseeable economic and other impacts of the Critical Habitat designations.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests should be made in writing and addressed to the Regional Director, U.S. Fish and Wildlife Service, Suite 1692, Lloyd 500 Building, 500 NE. Multnomah Street, Portland, Oregon 97232.

2. It is proposed to amend § 17.11(h), subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, by adding the following entry alphabetically to the table under the heading "Insects" as set forth below.

§ 17.11 Endangered and threatened wildlife.

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
INSECTS							
Nauconid, Ash Meadows.....	<i>Ambrysus amargosus</i>	U.S.A. (NV).....	N/A.....	E.....	N/A.....	17.95(i).....	N/A

3. It is further proposed to amend § 17.12(h), subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, by adding the following entries alphabetically to the list of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

National Environmental Policy Act

A draft environmental assessment has been prepared in conjunction with this proposal. It is on file in the Service's Office of Endangered Species, 1000 North Glebe Road, Arlington, Virginia, and may be examined by appointment during regular business hours. A determination will be made at the time of preparation of a final rule as to whether this is a major Federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969 (implemented at 40 CFR Parts 1500-1508).

Author

The primary author of this proposed rule is Steven M. Chambers, Office of Endangered Species, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (phone 703/235-1975).

References

Barneby, R. C. 1970. A new *Astragalus* (Fabaceae) from Nevada. *Madrono* 20:395-398.

Beatley, J. C. 1977. Endangered plant species of the Nevada Test Site, Ash Meadows, and Central-southern Nevada. Contract E(11-1)-2307, U.S. Energy Research and Development Administration.

Brandegee, T. S. 1899. New species of western plants. *Bot. Gaz.* 27:444-457.

Broome, C. R. 1981. A new variety of *Centaureum namophilum* (Gentianaceae) from the Great Basin. *Great Basin Naturalist* 41:192-197.

Cochrane, S. A. 1981. Unpublished status report on *Grindelia fraxino-pratensis* Reveal and Beatley.

Coville, F. V. 1982. Descriptions of new plants from southern California, Nevada, Utah, and Arizona. *Proc. Biol. Soc. Wash.* 7:85-80.

Cronquist, A. 1972. A new variety of *Enceliopsis nudicaulis* (Asteraceae) from southern Nevada. *Bull. Torrey Bot. Club* 99:246-248.

La Rivers, I. 1953. New gelastocorid and naucorid records and miscellaneous notes, with a description of the new species, *Ambrysus amargosus* (Hemiptera: Naucoridae). *The Wasmann Journal of Biology* 11:83-96.

Mozingo, H. N., and M. Williams. 1980. Threatened and endangered plants of Nevada. U.S. Fish and Wildlife Service and Bureau of Land Management.

Reveal, J. L. 1978a. Unpublished status report on *Mentzelia leucophylla* Brandege (Ash Meadows blazing star).

Reveal, J. L. 1978b. Unpublished status report on *Nitrophila mohavensis* Munz and Roos (Amargosa niterwort).

Reveal, J. L., and J. C. Beatley. 1971. Two new species from Nevada. *Bull. Torrey Bot. Club* 98:332-335.

Reveal, J. L., C. R. Broome, and J. C. Beatley. 1973. A new *Centaureum* (Gentianaceae) from the Death Valley region of Nevada and California. *Bull. Torrey Bot. Club* 100:353-356.

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Proposed Regulations Promulgation

PART 17—[AMENDED]

Accordingly, it is hereby proposed to amend Part 17, Subchapter B of Chapter I, Title 50 of the U.S. Code of Federal Regulations, as set forth below.

1. The authority citation for Part 17 reads as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 95-832, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; and Pub. L. 97-304, 96 Stat. 1411 [16 U.S.C. 1531 *et seq.*].

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Asteraceae—Aster family						
<i>Enceliopsis nudicaulis</i>	Ash Meadows sunray.....	U.S.A. (NV).....	E.....	N/A.....	17.96(a).....	N/A.....
<i>Grindelia fraxino-pratensis</i>	Ash Meadows gumplant.....	U.S.A. (CA,NV).....	E.....	N/A.....	17.96(a).....	N/A.....
Chenopodiaceae—Goosefoot family						
<i>Nitrophila mohavensis</i>	Amargosa niterwort.....	U.S.A. (NV).....	E.....	N/A.....	17.96(a).....	N/A.....
Fabaceae—Pea family						
<i>Astragalus phoenix</i>	Ash Meadows milk-vetch.....	U.S.A. (NV).....	E.....	N/A.....	17.96(a).....	N/A.....
Gentianaceae—Gentian family						
<i>Centaurium namophilum</i> var. <i>namophilum</i>	Spring-loving centaury.....	U.S.A. (CA,NV).....	E.....	N/A.....	17.96(a).....	N/A.....
Loasaceae—Loasa family						
<i>Mentzelia leucophylla</i>	Ash Meadows blazing star.....	U.S.A. (NV).....	E.....	N/A.....	17.96(a).....	N/A.....
Rosaceae—Rose family						
<i>Ivesia eremica</i>	Ash Meadows ivesia.....	U.S.A. (NV).....	E.....	N/A.....	17.96(a).....	N/A.....

§ 17.95 [Amended]

4. It is further proposed to amend § 17.95(i), Insects, by adding Critical Habitat of the Ash Meadows naucorid after that of the Palos Verdes blue butterfly as follows:

* * * * *

Ash Meadows Naucorid (*Ambrysus amargosus*)

Nevada, Nye County, Point of Rocks Springs.

Family Asteraceae: Ash Meadows sunray

(*Enceliopsis Nudicaulis* var. *corrugata*).

Nevada, Nye County, Ash Meadows. SW ¼ SE ¼ S. 15; SW ¼ NE ¼, W ½ SE ¼ S. 21; NW ¼ NE ¼ S. 22; E ½ SE ¼ S. 34; SW ¼ NE, S ½ NW ¼, SW ¼, W ½ SE ¼ S. 35; T 17 S, R 50 E. SE ¼ S. 20; T 17 S, R 51 E. NW ¼, SW ¼, W ½ SE ¼ S. 1; E ½ NE ¼, SW ¼ NW ¼, NW ¼ SW ¼, E ½ SE ¼ S. 2; NE ¼ NW ¼ S. 12; E ½ SW ¼, W ½ SE ¼ S. 13; T 18 S, R 50 E. SW ¼ SE ¼ S. 7; NW ¼ NE ¼, SE ¼ SW ¼ S. 18; T 18 S, R 51 E.

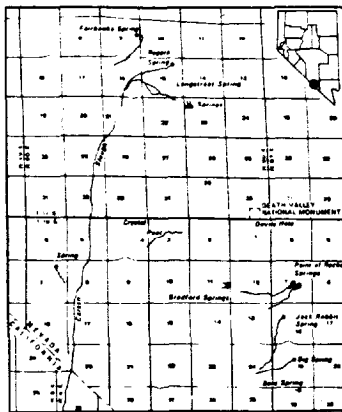
Family Asteraceae: Ash Meadows gumplant

(*Grindelia fraxino-pratensis*)

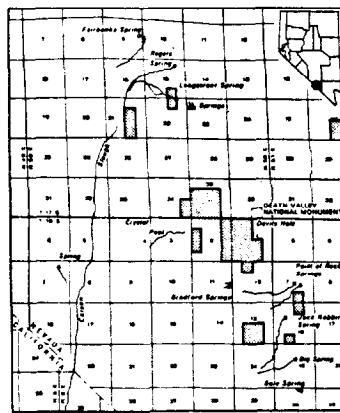
California, Inyo County, Ash Meadows: NE ¼ S. 30 southwest of the Nevada-California boundary; E ½ NW ¼ S. 30 southeast of Nevada-California boundary; E ½ NW ¼ S. 30 southeast of Nevada-California boundary; SW ¼ NW ¼, N ½ SW ¼, NW ¼ SE ¼ S. 30; T 28 N, R 6 E.

Nevada, Nye County, Ash Meadows: SE ¼ NW ¼ S. 28; W ½ SW ¼ NE ¼, W ½ NW ¼ SE ¼ S. 33; W ½ NW ¼, SW ¼ SW ¼, E ½ SE ¼, W ½ SE ¼ S. 35; T 17 S, R 50 E. N ½ SW ¼ S. 1; N ½ NW ¼, SW ¼ SW ¼ S. 2; NE ¼ NE ¼, NW ¼ NW ¼ S. 3; SW ¼ NE ¼, SE ¼ NW ¼, NE ¼ SW ¼, NW ¼ SE ¼ S. 4; E ½ NE ¼, NE ¼ SE ¼ S. 5; N ½ NE ¼ S. 7; NE ¼ SE ¼ S. 10. W ½ NW ¼, NW ¼ SW ¼ S. 11; SW ¼ NE ¼, E ½ SE ¼ S. 14; SW ¼ NW ¼, SW ¼ SE ¼ S. 20; W ½ SW ¼ and SE ¼ SW ¼ S. 20 northeast of the Nevada-California boundary; E ½ NE ¼, E ½ SE ¼ S. 23; W ½ SE ¼ S. 24; NW ¼ NE ¼ S. 29 northeast of the Nevada-California boundary; T 18 S, R 50 E. SW ¼ NW ¼, NW ¼ SW ¼ S. 18. T 18 S, R 51 E.

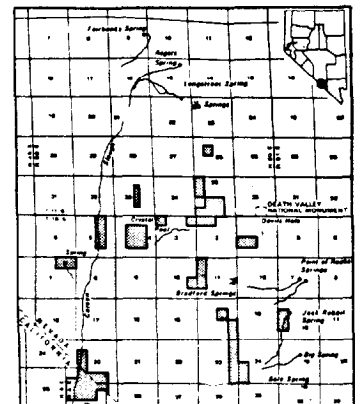
ASH MEADOWS NAUCORID
Nye County, NEVADA



ASH MEADOWS SUNRAY
Nye County, NEVADA



ASH MEADOWS GUMPLANT
Inyo County, CALIFORNIA and Nye County, NEVADA



Known primary constituent elements include warm-water spring pools.

* * * * *

§ 17.96 [Amended]

5. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the Ash Meadows sunray, as follows: (The position of this and the following plant Critical Habitat entries under § 17.96(a) will be determined at the time of publication of a final rule):

* * * * *

Known primary constituent elements include dry washes or whitish, saline soil associated with outcrops of pale whitish limestone.

* * * * *

6. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the Ash Meadows gumplant as follows:

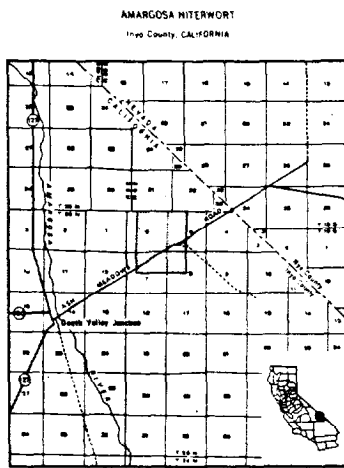
* * * * *

Known primary constituent elements include siltgrass meadows along streams and pools or drier areas with alkali clay soils.

7. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the Amargosa niterwort as follows:

Family Chenopodiaceae: Amargosa niterwort
(*Nitrophilia mohavensis*)

California; Inyo County, Ash Meadows: NW¼SW¼S. 5; NE¼, E½NW¼, E½SW¼, SE¼S. 6; NE¼, E½NE¼S. 7; NW¼S. 8; T 25 N. R 6 E.



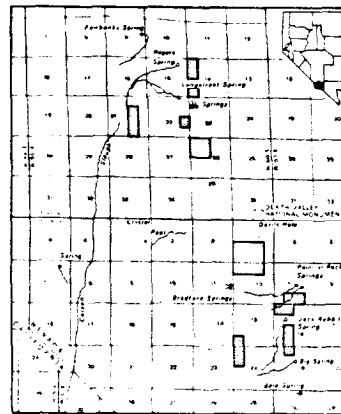
Known primary constituent elements include salt-encrusted alkaline flats.

8. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the Ash Meadows milk-vetch as follows:

Family Fabaceae: Ash Meadows milk-vetch
(*Astragalus phoenix*)

Nevada, Nye County, Ash Meadows: W½NW¼, SW¼SW¼S. 14; SW¼NE¼, W½SE¼S. 21; NW¼SE¼S. 22; NW¼S. 28; T 17 S, R 50 E. SW¼, W½SE¼S. 1; NW¼NE¼, N½NW¼S. 12; SW¼SW¼S. 13; W½NW¼ S. 24; T 18 S, R 50 E. SE¼SW¼, SW¼SE¼S. 7; N½NW¼, E½SW¼S. 18; NE¼NW¼S. 19; T 18 S, R 51 E.

ASH MEADOWS MILK VETCH
Nye County, NEVADA



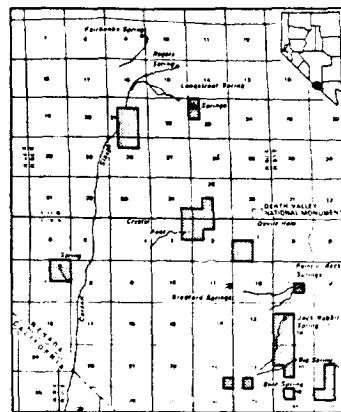
Known primary constituent elements include dry, hard, white, barren saline, clay flats, knolls, and slopes.

9. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the spring-loving centauray as follows:

Family Gentianaceae: Spring-loving centauray
(*Centaurium namophilum* var. *namophilum*)

Nevada, Nye County, Ash Meadows: SW¼NE¼, SE¼NW¼, E½SW¼, W½ SE¼S. 21; W½NW¼S. 23; NW¼NE¼, NE¼ NW¼S. 28; SE¼SE¼S. 34; SW¼SW¼, E½ SW¼S. 35; T 17 S, R 50 E. SW¼S. 1; NE¼ NW¼, W½NW¼S. 2; E½NE¼S. 3; NE¼S. 7; SE¼SE¼S. 23; SE¼SW¼S. 24; T 18 S, R 50 E. NW¼SE¼S. 7; S½NW¼, SW¼S. 18; NW¼, NE¼SE¼S. 19; E½SW¼S. 20; N½ NW¼S. 29; NE¼NW¼S. 30; T 18 S, R 51 E.

SPRING-LOVING CENTAURY
Nye County, NEVADA



Known primary constituent elements include moist to wet clay soils along

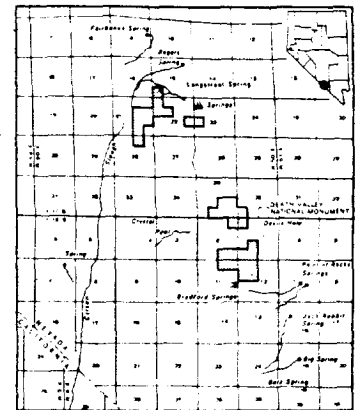
banks of streams or in seepage areas.

10. It is further proposed to amend § 17.96(a) by adding Critical Habitat of the Ash Meadows blazing star as follows:

Family Loasaceae: Ash Meadows blazing star
(*Mentzelia leucophylla*)

Nevada, Nye County, Ash Meadows: SW¼SW¼S. 15; S½NE¼, N½SE¼, SW¼SE¼S. 21; NW¼NW¼, S½NW¼, NE¼SE¼S. 22; NW¼SW¼S. 23; NW¼NE¼S. 28; SE¼SW¼, SE¼S. 35; SW¼SW¼S. 36; T 17 S, R 50 E. NW¼NW¼, SW¼SW¼, E½SW¼, E½SW¼S. 1; NE¼NE¼, S½SE¼S. 2; N½NE¼S. 11; NW¼S. 12; T 18 S, R 50 E.

ASH MEADOWS BLAZING STAR
Nye County, NEVADA



Known primary constituent elements include sandy or saline clay soils along canyon washes and near springs and seeps.

11. It is further proposed to amend § 17.96(a) by adding the Critical Habitat of the Ash Meadows ivesia as follows:

Family Rosaceae: Ash Meadows ivesia
(*Ivesia eremica*)

Nevada, Nye County, Ash Meadows: SW¼NE¼, W½SE¼S. 21; S½SW¼, SW¼SE¼S. 35; T 17 S, R 50 E. SW¼S. 1; N½NW¼, SW¼SW¼S. 2; NE¼NE¼S. 3; NW¼NE¼S. 12; N½NE¼, SE¼NE¼S. 23; N½NW¼, SW¼NW¼, NW¼SW¼S. 24; T 18 S, R 40 E.

