

owns all mining claims on the talus slope. The large copper mine currently has no plan to expand in the area of the talus slope.

There are housing developments of small acreages to the north and to the southwest of the hill. However, the talus slope is too steep (30 to 40 percent slope) to permit housing construction.

A road leading to a microwave site on the hilltop passes near the talus slope. This road receives very little traffic; microwave technicians may visit the site once every other month, unless there is a problem on the ground which may require more frequent visits. Access to the road by the public is restricted by a locked gate. Information provided by AEPCO shows that since the construction of the road in 1978, maintenance has been conducted on the road on six occasions. The last time a grader worked the entire road was December 1990. We have not documented any adverse effects to the San Xavier talussnail resulting from past road maintenance. The conservation agreement specifies that future road maintenance will be coordinated with the Advisory Committee and will not occur during the talussnail's active period except in emergencies. We believe these precautions adequately protect the species from road maintenance.

#### *B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

Although we do not have any information indicating that any significant collection of the San Xavier talussnail is occurring, the extremely restricted distribution of the species makes it vulnerable to overcollection during periods when the snails are active. Trespassing on the talus slope is prohibited, vehicle access to the site is restricted by a locked gate, and collection of the species is prohibited by Arizona State law (see factor D). Also, additional measures are being evaluated to further discourage trespassing and collection. For these reasons, we believe that the potential threat of overcollection of the species is small and not significant enough to warrant listing the species at this time.

#### *C. Disease or Predation*

We do not know of any diseases affecting the San Xavier talussnail. Rodent predation is random and sporadic on the species (Hoffman 1990). However, we do not have any evidence indicating that rodent predation is or may be a limiting factor for this species.

#### *D. The Inadequacy of Existing Regulatory Mechanisms*

The State of Arizona has placed the San Xavier talussnail on the 1998 Crustaceans and Mollusks Commission Order 42 and the list of sensitive elements that qualify for Heritage funding. This designation makes it illegal to collect or possess the species. The species occurs on private land, and trespassing is prohibited. In addition, the conservation agreement provides a framework for continued protection and management of the San Xavier talussnail and its habitat. We believe these provisions are adequate for the conservation of the species.

#### *E. Other Natural or Manmade Factors Affecting Its Continued Existence*

The very restricted range of the San Xavier talussnail makes it vulnerable to catastrophic events. As far as we know, the talussnail has always been limited to the single, small site where it currently exists. Because the species has persisted under these natural conditions, we do not believe that natural catastrophic events pose a significant threat to the species. Potential human-caused catastrophic events include significant disturbance, including vandalism, to the talus slope or upslope areas. We believe that the measures specified in the conservation agreement addressing construction activities, road maintenance, and trespassing sufficiently reduce the likelihood that such human-caused catastrophic events will occur.

#### *Finding and Withdrawal*

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the San Xavier talussnail. Population trend information is unavailable, but the species' habitat is secure. We no longer believe that the San Xavier talussnail is in danger of extinction throughout all or a significant portion of its range or is likely to become so in the foreseeable future. We therefore withdraw the proposed rule to list the San Xavier talussnail under the Endangered Species Act.

We will work to gather additional information on the status and ecology of the San Xavier talussnail. Also, we will participate with parties to the conservation agreement to ensure the long-term survival of this species. If new information becomes available indicating the presence of a new threat to the San Xavier talussnail or an increase in the severity of a threat, and if the threats are not adequately addressed through revision of the

conservation agreement or other means, we will consider reinitiating the listing process for the species.

#### **References Cited**

- Hoffman, J.E. 1990. Status survey of seven land snails in the Mineral Hills and the Pinaleno Mountains, Arizona. Prepared for U.S. Fish and Wildlife Service, Phoenix, Arizona. Contract Number: 20181-88-00973.
- Morton, J.E. 1968. Molluscs. Hutchinson University Library. London. 244 pp.
- Pilsbry, H.A. and J.A. Ferriss. 1915. Mollusca of the southwestern states. VII. The Dragoon, Mule, Santa Rita, Baboquivari and Tucson Ranges, Arizona. Proc. Acad. Nat. Sci. Phila. 67:363-418; Pls. 8-15.

Author: The primary author of this document is Debra Bills, Arizona Ecological Services Field Office (see ADDRESSES section).

**Authority:** The authority for this action is section 4(b)(6)(B)(ii) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: September 29, 1998.

**Jamie Rappaport Clark,**

*Director, Fish and Wildlife Service.*

[FR Doc. 98-26737 Filed 10-5-98; 8:45 am]

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## **DEPARTMENT OF INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

#### **RIN 1018-AE51**

### **Endangered and Threatened Wildlife and Plants; Proposed Endangered Status for the Oahu Elepaio from the Hawaiian Islands**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule and notice of finding.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) proposes endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for the Oahu elepaio (*Chasiempis sandwichensis ibidis*). This bird is endemic to the island of Oahu, Hawaiian Islands, where it was formerly found in all forested areas on the island. It is currently found in greatly reduced numbers and range in six isolated populations occurring in mid-elevation forests in the southern Koolau Mountain Range and parts of the Waianae Mountain Range. The Oahu elepaio is now thought to occupy less than 80 square kilometers (sq km) (30 square miles (sq mi)) or 8 percent of its original, historic range. Sightings of Oahu elepaio during Christmas Bird

Counts have dropped by 75 percent since 1960. The most recent population estimate for this taxon indicates that between 200 and 500 birds remain. The Oahu elepaio has been affected in the past and will continue to be threatened by—habitat loss and degradation, including habitat loss from development, and habitat modification resulting from human activities; predation by introduced mammals; introduced avian disease; competition from introduced birds, and; the spread of certain alien plants which dramatically alter forest structure and/or diversity. The Oahu elepaio is also subject to an increased likelihood of extinction from naturally occurring events, such as hurricanes, etc.

**DATES:** Comments from all interested parties must be received by December 7, 1998. Public hearing requests must be received by November 20, 1998.

**ADDRESSES:** Comments and materials concerning this proposal should be sent to Manager, Pacific Islands Ecoregion, U.S. Fish and Wildlife Service, 300 Ala Moana Boulevard, P.O. Box 50088, Honolulu, Hawaii 96850. Comments and material received will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Pacific Islands Ecoregion Manager (see **ADDRESSES** section) (telephone 808/541-2749; facsimile 808/541-2756).

**SUPPLEMENTARY INFORMATION:**

**Background**

The Hawaiian archipelago is comprised of eight main islands, and the shoals and atolls of the northwest Hawaiian Islands. The islands were formed sequentially by basaltic lava that emerged from a crustal hot spot located near the southeast coast of the island of Hawaii (Stearns 1985).

The second oldest main island, Oahu, is 2.5 to 3.5 million years old, and is heavily weathered. Oahu has two principal mountain ranges—the Koolau and Waianae. The Koolau Mountains extend 60 km (37 mi) from southeast to northwest along the eastern half of the island. The windward (northeast) slope of these mountains is characterized by steep cliffs and short ridges less than 6 km (4 mi) long. Leeward ridges as long as 18 km (11 mi) parallel one another to the southwest and west; alternating with steep-sided stream valleys. The peak elevation in the Koolau Mountains occurs at Puu Konahua Nui (955 meters (m); 3,100 feet (ft)). The Waianae Mountains run from southeast to northwest in a 32 km (20 mi) arc along the western coast of Oahu. The steep

cliffs of the Waianae Mountains are leeward facing (western slope); both windward and leeward ridges are less than 5 km (3 mi) in length. The peak elevation occurs at Kaala (1,230 m (4,000 ft)).

In general, native forest vegetation on Oahu presently only occurs above elevations of about 500 m (1,600 ft). By 1900, most lower elevation forests had been cleared for agricultural and commercial use or were heavily invaded by introduced vegetation. Current habitats for Oahu elepaio occur in the Waianae Mountains and in the southern Koolau Mountains on Oahu in a variety of wet and dry forests, including those dominated by either native or alien tree species.

The elepaio from the island of Oahu has been recognized as a distinct taxonomic entity since Stejneger first described the Oahu elepaio as *Chasiempis ibidis* in 1887. Wilson (1891) described the bird as *C. gayi*, but, as pointed out by Olson (1989), the epithet *ibidis* has priority over *gayi*. Various taxonomic treatments of the Hawaiian elepaio have described from one to six species and up to five subspecies (Sclater 1885, Stejneger 1887, Wilson and Evans 1890–1899, Wilson 1891, Rothschild 1892–1900, Henshaw 1902, Perkins 1903, MacCaughy 1919, Bryan and Greenway 1944, Pratt 1979 and 1980, Olson 1989, Olson and James 1991). The taxonomy used in this proposed rule follows Pyle (1992) and recognizes only a single species of elepaio in Hawaii (*Chasiempis sandwichensis*) with three subspecies, each of which is endemic to a different island. The three island-specific subspecies of elepaio are—Kauai elepaio (*C.s. sclateri* Ridgeway 1882), Oahu elepaio (*C.s. ibidis* Stejneger 1887), and Hawaii elepaio (*C.s. sandwichensis* Gmelin 1789 (as cited in Pyle 1992)). These subspecies differ considerably in plumage coloration and somewhat in vocalizations, but are quite similar in ecology and behavior (Conant 1977, Pratt 1980, VanderWerf 1993, and 1994).

The Oahu elepaio is a member of the Old-World insect-eater family of birds (Muscicapidae) and is most likely related to the genus *Monarcha* (Mayr 1943, Conant 1977). The ancestors that gave rise to elepaio were probably of Melanesian origin with colonization of Hawaii occurring through Polynesia or Micronesia.

The Oahu elepaio has long slender legs and a broad, soft bill, black in color and bordered with bristles. Body length is about 14.6 centimeters (cm) (6 inches (in)). Adults are rusty brown above, with a contrasting rufous-chestnut

eyebrow and a whitish eye-ring. The chin is white and the throat black, with some rufous-chestnut streaking on the upper breast; the belly is white. Adult males and females are similar in appearance. Two distinctive field marks of adults are the white wing bars and white rump, both of which are easily seen when the bird is in flight. Immature birds lack both the white rump and the black throat and are relatively uniform rusty brown on the head and neck. The chest is tinged with buff and the belly is white. The whitish eye-ring and bold white, black, and chestnut markings of the adults are also absent in immature birds (Pratt 1980).

Comments by early naturalists indicate that the Oahu elepaio was once widespread in forested areas throughout Oahu at all elevations. Perkins (1903) remarked that “the universal distribution over the islands they severally inhabit, from the lowest bounds to the uppermost edge of continuous forest, as well as their extreme abundance and obtrusive familiarity, has caused them to be noticed by many persons who have seen no other native bird.” Bryan (1905) noted that the elepaio “remains the most abundant Hawaiian species on the mountainside all the way from the sea to well up into the higher elevations,” while MacCaughy (1919) wrote that “the altitudinal range on Oahu is approximately from 800 feet to the highest summits.”

However, even the earliest described historical range was likely to have been somewhat modified by habitat destruction, as noted by MacCaughy (1919) “[o]riginally, when the forests covered much more of the lowlands than at present, and extended down to the strand in many districts, the elepaio was abundant at the lower levels \* \* \*”. In spite of the descriptions of reduced range, naturalists were optimistic about the elepaio’s chances for survival. In 1902, Henshaw (1902) wrote “it is probable that when most of the Hawaiian birds are extinct the elepaio will long continue to maintain itself in scarcely diminished numbers.” MacCaughy (1919) wrote, “[t]he one indigenous forest bird that appears to successfully withstand the devastating influences of “civilization” is the Hawaiian flycatcher elepaio.” Munro (1944) was similarly optimistic about the elepaio, reporting that “[i]t is holding its own well in the Oahu forests from which so many of the native birds have long disappeared.”

Early observations indicate that the Oahu elepaio was widely distributed and extremely abundant. Rothschild (1892) called the elepaio “one of the

commonest, if not the commonest, of all the small native birds on Oahu." Similarly, Seale (1900) said the elepaio was "the commonest native land bird to be found on the island." MacCaughey (1919) stated that it was "the most abundant representative of the native woodland avifauna" and "abundant in all parts of its range," but Bryan (1905) found it to be "much more frequently met with in the Waianae Mountains than in the Koolau range back of Honolulu," which may indicate that the species' optimum habitat is dry rather than wet forest.

Based on the above range descriptions, the Oahu elepaio was historically very general in its habitat requirements, and at least some populations occupied all types of forest at most elevations. Several authors noted that elepaio reached their greatest abundance in valleys at middle elevations. For example, Seale (1900) said that "its usual haunt is the densely wooded canons at an elevation of from [sic] 800 to 1,300 feet." MacCaughey (1919) observed that the elepaio is "a bird of the humid and mesophytic forests," and said it "is most plentiful in the protected wooded ravines and on the valley slopes."

The generalized habitat requirements of the Oahu elepaio are also shown by its ability to forage (as a generalized insectivore) and nest in a variety of different plant species, including areas with non-native vegetation. Perkins (1903) believed that "to the changes wrought by civilization they are less susceptible than any other bird, and they may be seen feeding and even nesting in dense thickets of the introduced guava, or amongst masses of the prickly lantana, as contentedly as amongst the native vegetation." Conant (1977) studied a population that existed in a forest of entirely introduced plant species. The species shows extremely versatile foraging behavior and uses all available plant species and all heights in forests of native plant species (Conant 1981, VanderWerf 1993 and 1994).

More recent information indicates that the Oahu elepaio still inhabits various types of forest. The Oahu elepaio appears to be most common in areas of alien and mixed native/alien forest having a tall tree canopy and well developed subcanopy and understory structure that supports high density insect populations, and in valleys at middle elevations. The species is much less numerous in scrubby vegetation on higher-elevation ridges and slopes, and does not frequent forests lacking a subcanopy or comprised of monotypes. The apparent preference for alien or mixed alien-native forest may be a

reflection of their continued affinity for mid-elevation valleys, where disturbance has been greater and the majority of plants are introduced. Virtually all forests below 500 m (1,600 ft) have been degraded to the point that they now consist almost entirely of introduced vegetation. During an intensive bird survey of the central Koolau Mountains on Oahu in 1978, Shallenberger and Vaughn (1978) found the greatest abundance of elepaio in alien forests, particularly areas with kukui (*Aleurites moluccana*) and guava (*Psidium guajava* and *P. cattleianum*) trees, and in mixed alien-native forest. The occurrence of elepaio was lower in forests of entirely native species, primarily ohia (*Metrosideros polymorpha*) and koa (*Acacia koa*). The lesser abundance in native forest found by Shallenberger and Vaughn (1978) is unlikely to be a sampling artifact because the greatest effort was spent in areas of native forest. It is likely due to a preference for certain elevations and diverse forest structure rather than for certain plant species. The results of the Oahu forest bird survey (Hawaii State Division of Forestry and Wildlife, 1991), indicate that the current habitat types occupied by the Oahu elepaio appear to be similar to what Shallenberger and Vaughn (1978) reported.

Conant (1995) has identified 598 separate observations of Oahu elepaio dating from 1883 through 1995. Many of these sightings occurred in the same location, but over a period of years. By consolidating observations made at the same location, it was possible to identify 83 site-specific locations where elepaio had been seen. Sixty-nine of these sites (84 percent) have been revisited between 1990 and 1995. Of these revisited sites, only 31 (45 percent) still had elepaio present. These 31 extant sites are distributed among six isolated populations in the southern Koolau Mountains and the central Waianae Mountains. Further analysis of both these data and the writings of early naturalists indicates that the elepaio originally inhabited 75 percent of Oahu's land mass. By 1960, only 30 percent of the original habitat was still occupied. Fifteen years later, in 1975, the distribution had declined to 14 percent of the original distribution. In 1990, the Oahu elepaio occupied an area of 80 sq km (30 sq mi). This represents less than 8 percent of its original range (Conant 1995).

While a collapse of the Oahu elepaio's range has clearly occurred, decline in population density in the remaining populations has been more difficult to determine. Williams (1987) examined the decline of Oahu elepaio using

Christmas Bird Counts from 1944 through 1985. Using standardized data (one census per year with number of birds per hour of observation), he documented a clear downward trend in elepaio observations. The data show a sharp decline in Oahu elepaio observations beginning in the late 1950s and continuing through the 1960s, when observations were one or fewer birds per observer hour, dropping to approximately 0.5 birds per observer hour after 1974.

In their recent reports, Sherwood (1995) and Cowell (1995) called attention to the population estimate of 200 to 500 total Oahu elepaio made by the Hawaii Forest Bird Conservation Assessment and Management report (Ellis *et al.* 1992). This report stated that two subpopulations of Oahu elepaio exist, one in the Waianae Mountains and the other in the Koolau Mountains. However, more detailed data suggest that there are actually six smaller and geographically isolated populations, three in each of the mountain ranges. Ellis *et al.* (1992) estimated that 20 percent of the population was in the Waianae Mountains and 80 percent in the Koolau Mountains. In terms of the areal range, 40 percent of the range is in the Waianae Mountains and 60 percent in the Koolau Mountains. In 1994, at least 79 Oahu elepaio were seen (Conant 1995). A systematic range-wide count of Oahu elepaio has not been made and the population estimate of 200 to 500 birds by Ellis and others (1992) remains the only range-wide estimate of numbers.

The remaining six populations occur on lands owned by Federal, State, City and County of Honolulu, and private parties. Analysis of major land ownership patterns identify 48 percent of occupied elepaio areas in privately held lands, 25 percent federally owned or leased lands, 22 percent State-owned areas and 5 percent owned by city and county governments. Ownership patterns vary between the six populations. Two populations have greater than fifty percent private ownership within their ranges, three populations' ranges cover land primarily owned by the State, and one population has the majority of land under Federal ownership. Ninety-two percent of the current elepaio range occurs within State-designated Conservation Districts and 29 percent of the range occurs within additional protected areas, including State Forest Reserves, State Natural Area Reserves, and The Nature Conservancy's Honouliuli Preserve. Only 8 percent of the elepaio range falls outside the Conservation District and protected areas.

### Previous Federal Action

The Service was petitioned by Mr. Vaughn Sherwood on March 22, 1994, to list the Oahu elepaio as an endangered or threatened species with critical habitat. The November 15, 1994, Animal Notice of Review (59 FR 58991) classified the Oahu elepaio (*C. s. gayi*) as a category 1 candidate. Category 1 candidates are those species for which the Service has sufficient data in its possession to support a listing proposal. On June 12, 1995 (60 FR 30827), the Service published a 90-day petition finding stating that the petition presented substantial information such that listing may be warranted. Because *C. s. gayi* is a synonym of *C. s. ibidis*, this proposed rule constitutes the final 12-month finding for the petitioned action.

As announced in a notice published in the February 28, 1996, **Federal Register** (61 FR 7596), the designation of multiple categories of candidates has been discontinued, and only former category 1 species are now recognized as candidates for listing purposes. The listing priority numbers for candidate taxa range from 1 (highest priority) to 12 (lowest priority) and are assigned by the Service based on the immediacy and magnitude of threats, as well as taxonomic status (48 FR 43098).

The Service published Listing Priority Guidance for Fiscal Years 1998 and 1999 on May 8, 1998 (63 FR 25502). The guidance clarifies the order in which the Service will process rulemakings giving highest priority (Tier 1) to processing emergency rules to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists); second priority (Tier 2) to processing final determinations on proposals to add species to the Lists, processing new proposals to add species to the Lists, processing administrative findings on petitions (to add species to the Lists, delist species, or reclassify listed species), and processing a limited number of proposed or final rules to delist or reclassify species; and third priority (Tier 3) to processing proposed or final rules designating critical habitat. Processing of this proposed rule is a Tier 2 action. The Pacific Islands Ecoregion currently has no outstanding Tier 1 species; therefore, processing of Tier 2 activities is appropriate under the listing priority guidance. This rule has been updated by the Pacific Islands Ecosystem Office to reflect any changes in distribution, status and threats since the effective date of the listing moratorium.

### Summary of Factors Affecting the Species

Section 4 of the Act 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 the Oahu elepaio are as follows:

#### *A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range*

Threats to the Oahu elepaio's habitat include habitat loss from development, habitat modification resulting from human activities, habitat damage by pigs and the spread of certain alien plants, such as the velvet tree (*Miconia calvescens*), which dramatically alter forest structure and/or diversity.

Alteration of areas covered by forests, including changes in forest composition and forest structure and the resulting habitat loss has impacted the Oahu elepaio. Early Hawaiians significantly altered the native vegetation of Oahu, particularly in valleys used for taro cultivation. In uncultivated areas, trees were cut for firewood and construction, and fire was used to encourage the growth of grasses used for thatch (Kirch 1982). Destruction of the low-elevation forest resulted in the extinctions of numerous birds and land snails on Oahu (Olson and James 1982, Kirch 1982). After European contact in 1778, habitat loss accelerated and began to occur at higher elevations. The sandalwood trade, which played a key role for Oahu, required firewood, which completely eliminated native forests in the vicinity of Honolulu (Cuddihy and Stone 1990). From 1840 to about 1920, vast areas of low- and mid-elevation forest in Hawaii were cleared for sugarcane cultivation. By the 1970's, more than 100,000 ha (274,000 acres) were under sugarcane cultivation. In contrast to early Hawaiian cultivation that was largely concentrated in mesic valleys and plains, sugarcane cultivation displaced native forest in dry leeward areas and wide ridges and slopes such as the Leilehua Plateau between the Koolau and Waianae Mountains on Oahu. Between 1900 and 1950, pineapple cultivation on Oahu also resulted in a significant loss of native forests (Cuddihy and Stone 1990). While some of the areas cleared of native forest have either been replanted with exotic trees or regrown in alien vegetation, Gagne (1988)

estimated that less than 20 percent of the land area on Oahu is now covered by forest, and less than 20 percent of that forest is native vegetation.

Oahu is the population center of the Hawaiian Islands, with about 40 percent of the State's population residing in Honolulu alone. The fastest growing areas on Oahu, however, are suburban areas and "second cities." Development can have significant impacts on Oahu elepaio habitat through modification of forest structure and diversity. Although the majority of lands within the elepaio's range are within Conservation Districts and State Forest reserves, designation as such offers varying degrees of protection and may allow activities, such as construction of individual houses, forestry-related activities, hunting and recreational uses, which can be detrimental to the elepaio. Other types of development can also eliminate habitat. A portion of the H-3 freeway completed in 1997 runs through Halawa Valley, the north ridge of which supports one population of the Oahu elepaio, and amenities such as golf courses may displace non-native forests used by the Oahu elepaio, particularly if the forest structure consists of tall canopy trees and dense, diverse understory vegetation.

Military activities and related impacts on federally owned and leased lands also affect the Oahu elepaio. Oahu elepaio presently occupy the upper slopes of Makua Valley in and adjacent to the U.S. Army's Makua Military Reservation. The lower section of Makua Valley is used as a live firing range and the facility has a history of ordnance-induced fires (Hawaii Heritage Program, 1994a). Prescribed burning occasionally results in large fires and along with construction of firebreaks, destroys elepaio habitat and potentially threatens the birds. A large part of the elepaio range in the eastern Waianae Mountains occurs on Schofield Barracks Military Reservation. Live firing also occurs in several areas of Schofield Barracks Military Reservation, and ordnance-induced fires pose a significant threat to the habitat of the Oahu elepaio (Hawaii Heritage Program, 1994b).

*Sus scrofa* (pigs), originally native to Europe, Africa, and Asia, were first introduced to Hawaii by the Polynesian ancestors of Hawaiians, and later by western immigrants. The Hawaiian strain of pig was comparatively small, and seems to have had a minimal impact on the native forests. The European strain of pig escaped domestication and invaded primarily wet and mesic forests on Kauai, Oahu, Molokai, Maui, and Hawaii. These pigs

are large animals that threaten the continued existence of native plants and animals within these forest habitats. While foraging, pigs root and trample the forest floor, which promotes the establishment of alien plants in the newly disturbed soil. Pigs also disperse alien plant seeds through their feces and on their bodies, accelerating the spread of alien plants through native forest (Cuddihy and Stone 1990, Stone 1985), which may subsequently alter the structure and diversity of the forest necessary for the survival of the Oahu elepaio. Both a forest canopy and a diverse understory are important habitat components for the elepaio.

*Miconia calvescens* (velvet tree) is a recently naturalized species native to tropical America. This species has become established on the islands of Hawaii, Maui, Oahu, and Kauai. This plant species has the potential to greatly disrupt forest canopy and understory structure and significantly alter biological diversity. *Miconia calvescens* is potentially the most invasive and damaging weed of rainforests of Pacific islands (Medeiros *et al.* 1997). In moist conditions, this plant grows rapidly (up to 15 m (49 ft) tall), tolerates shade, produces abundant seed that is effectively dispersed by birds and accumulates in a large, persistent seed-bank, and develops monospecific stands that eliminate understory plant species and subcanopy structure by shading and crowding (Medeiros *et al.* 1997). In Tahiti, it has become a dominant plant species in habitats similar to those of Hawaii (Almeda 1990; Cuddihy and Stone, 1990.) Medeiros *et al.* (1997) states that *Miconia calvescens* now dominates the forest composition in 65 percent of the island through the establishment of large, monospecific stands. This plant is now naturalized on Oahu at three locations in the southeastern Koolau Mountain range, including Manoa Valley (Medeiros *et al.* 1997), where one population of the Oahu elepaio is located.

#### B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is not known to threaten the Oahu elepaio.

#### C. Disease and Predation

Disease and predation may have contributed to the decline of the Oahu elepaio (Sheila Conant, University of Hawaii, pers. comm., 1995). Although there is some indication that nests and eggs may be destroyed by rats (*Rattus exulans*, *R. norvegicus*, *R. rattus*) (Conant 1977), studies have yet to document the extent to which the Oahu

elepaio is affected by predation by any of the small, ground-dwelling and/or arboreal predators, including the small Indian mongoose (*Herpestes auropunctatus*), feral cats (*Felis domesticus*), and rats. All of these predators were established long before the recent decline of the Oahu elepaio (Tomich 1986), but may have had a significant impact at the time of their initial introduction.

Avian diseases have had a devastating effect on many endemic Hawaiian forest birds that seem to have little or no resistance to disease. Avian pox (*Poxvirus avium*) causes lesions on the feet, legs, and bills, and is transmitted by physical contact or through mosquitoes. Avian malaria (*Plasmodium relictum capistranoae*) is transmitted by the southern house mosquito (*Culex quinquefasciatus*) and clearly limits the lower elevational distribution of many Hawaiian forest birds (U.S. Fish and Wildlife Service 1984, Atkinson *et al.* 1993). While the Oahu elepaio appears to be less affected than other species, the effect on this taxon could possibly contribute to the observed declines in range and abundance.

#### D. The Inadequacy of Existing Regulatory Mechanisms

Currently, the Oahu elepaio is protected from taking by both State (Hawaii Revised Statutes (HRS), Sect. 13–124–3A) and Federal law (Migratory Bird Treaty Act of 1918, 16 U.S.C 703–712, 40 Stat. 755, as amended). These regulations protect the taxon from capture and collection (without appropriate permits) of individuals, nests and eggs. However, these regulations afford no protection to the habitat of the taxon.

#### E. Other Natural or Manmade Factors Affecting Its Continued Existence

Naturally occurring events, such as hurricanes, may affect the continued existence of the Oahu elepaio. Because the subspecies now exists as six small isolated populations, rather than one large, continuous, interbreeding population, a population decline could be exacerbated by random genetic, environmental, and demographic events. Small population size can reduce reproductive rates, increase rates of inbreeding and may result in the expression of deleterious recessive genes occurring in the population (inbreeding depression) and less future plasticity. Loss of genetic variability through genetic drift reduces the ability of small populations to cope with ecological and environmental stresses such as habitat modification, and alien

species. If disease is a factor in the decline of the Oahu elepaio, the reproduction of any genetically-resistant individuals could be important to the survival of this taxon.

If populations continue to decline and become extremely small, demographic events take on greater significance. For example, if weather events (e.g., El Niño episodes) cause reproductive failure for one or more years, and is followed by a period of high predation, a small population has less resiliency and may be extirpated. Another environmental factor that could cause large or total population loss is hurricanes, which may cause direct mortality, habitat destruction or modification, and promote the spread of invasive alien plants. Birds in the Hawaiian Islands have long endured hurricanes, but major hurricanes in concert with low population numbers and other factors could severely affect the Oahu elepaio.

Introduction of alien species of plants and animals into Hawaii is a major continuing threat to all native flora and fauna. Competition, predation, and disease associated with alien introductions could significantly and negatively affect the remaining populations of Oahu elepaio. The threat of the accidental introduction of the brown tree snake (*Boiga irregularis*) from Guam, Saipan, or the Solomon Islands is of particular concern. The brown tree snake is an aggressive predator of birds that has caused a significant decline in avifauna on Pacific islands where this snake has been introduced. In December 1994, a live brown tree snake was found in a Schofield Barracks warehouse on the island of Oahu. This snake was associated with a shipment of U.S. Army materials from Tinian via Guam.

A likely factor contributing to the decline of the Oahu elepaio is competition with recently introduced birds. The Japanese white-eye (*Zosterops japonicus*) was introduced to Hawaii in the 1930's. It was still expanding its range into remote areas within the last two decades and is now probably the most abundant bird in Hawaii (Pratt *et al.* 1987). Scott *et al.* (1986) demonstrated that the Japanese white-eye was the primary factor contributing to negative correlations between the distributions of native and introduced birds, including elepaio. Elepaio have frequently been known to defend territories against Japanese white-eye (Conant 1975). Japanese bush-warblers (*Cettia diphone*) were also introduced to Oahu in the 1930's (Pratt *et al.* 1987) but for many years were uncommon and restricted to the Waianae Mountains (Bob Pyle, Bishop

Museum, pers. comm., 1995). In recent decades, however, the Japanese bush-warbler has expanded its range to occupy most of Oahu's forested areas and is now very abundant. Thus, the expansion of the bush-warbler also roughly corresponds with the recent decline of the elepaio (Pyle, pers. comm., 1995). The bush-warbler is also an insectivore that forages in the understory and is a likely competitor of the Oahu elepaio. The red-vented bulbul (*Pycnonotus cafer*) was introduced to Oahu in 1965, greatly increasing in numbers after 1970 (Williams 1987) and is now extremely abundant in forested habitats. While primarily a fruit-eater, red-vented bulbuls take insect prey (Sheila Conant, pers. comm., 1995) and are a particularly aggressive species, known to chase other birds (Berger 1981).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this taxon in determining to propose this rule. Based on this evaluation, the preferred action is to list the Oahu elepaio as endangered. The most recent estimates indicate that the Oahu elepaio numbers no more than 200 to 500 individuals, occurring in six small and geographically isolated populations (Ellis *et al.* 1992). This bird is threatened by—habitat degradation and loss, including habitat fragmentation due primarily to human impacts; competition with introduced birds; disease, including avian pox and malaria; and possible predation by non-indigenous mammals. Small total population size, limited distribution, and population fragmentation make this taxon particularly vulnerable to reduced reproductive vigor and the effects of naturally occurring events. Because the Oahu elepaio is in danger of extinction throughout all or a significant portion of its range, it fits the definition of endangered as defined in the Act. Therefore, the determination of endangered status for the Oahu elepaio is appropriate.

#### Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical area occupied by a 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 a 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 *C. s. ibidis*. 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.

Critical habitat designation for *C. s. ibidis* is not prudent due to lack of benefit. There are only 200–500 of these birds remaining, all of which are restricted to six geographically isolated populations occupying a total area of about 80 sq km (30 sq mi). As discussed in the "Background" section of this rule, within this restricted range, the Oahu elepaio has a preference for certain elevations and forest structure. These forest birds are located on one island with less than 20 percent of the land area now covered by forest, and less than 20 percent of that forest is comprised of native vegetation. Therefore, the destruction or adverse modification of habitat within the restricted range of the Oahu elepaio would cause further reduction in the area available for this bird to feed, nest, breed, and rear young. In light of these facts, any action that would adversely modify critical habitat also would be likely to jeopardize the continued existence of the the Oahu elepaio. The designation of critical habitat therefore would not provide additional benefit for the Oahu elepaio beyond the protection afforded by listing.

Critical habitat receives consideration under section 7 of the Act with regard to actions carried out, authorized, or funded by a Federal agency. Federal agencies are required to ensure that their actions do not jeopardize the continued existence of a species or result in destruction or adverse modification of critical habitat. However, both jeopardizing the continued existence of a species and adverse modification of critical habitat

have similar standards and thus similar thresholds for violation of section 7 of the Act. Federal involvement is most likely in two situations—(1) where the species occurs on Federal lands and (2) when a Federal agency is involved in authorizing or funding actions on non-Federal lands. One quarter of the current range of the Oahu elepaio's range is Federally owned or leased. Furthermore, designation of critical habitat may affect non-Federal lands only where a Federal nexus exists. The designation of critical habitat on private or State lands provides no additional benefit for the Oahu elepaio over that provided as a result of listing when there are no Federal nexus actions taking place. Designating critical habitat does not create a management plan for the areas where the listed species occurs; does not establish numerical population goals or prescribe specific management actions (inside or outside of critical habitat); and does not have a direct effect on areas not designated as critical habitat.

All involved Federal, State, City, County and private landowners have been notified of the importance of protecting the habitat of the remaining populations of the Oahu elepaio. The Service believes that Federal involvement in the areas where this bird occurs can be identified without the designation of critical habitat. Where Oahu elepaio are found on Federal lands, the agencies are aware of the species and are addressing conservation efforts (see "Available Conservation Measures" section below). Non-Federal landowners have also been appraised of the population locations and importance of protecting the bird and its habitat. Protection of the Oahu elepaio will be addressed through the section 4 recovery process and the section 7 consultation process. For the reasons discussed above, the Service finds that the designation of critical habitat for the *C. s. ibidis* is not prudent.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages public awareness and results in conservation actions by Federal, State and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with states and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies

and the prohibitions against certain activities involving listed animals 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 with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing 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 a listed species or destroy or adversely modify its critical habitat if any is designated. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Federal agency actions that may require conference and/or consultation as described in the preceding paragraph includes—military activities, such as military training, troop movements, or fire resulting from the military's use of live ammunition during training, which take place on federally owned or leased lands; the involvement of the Army Corps of Engineers in projects subject to section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899 such as the construction of roads, bridges, and dredging projects; U.S. Environmental Protection Agency-authorized discharges under the National Pollutant Discharge Elimination System; U.S. Department of Agriculture/Natural Resources Conservation Service and U.S. Department of Housing and Urban Development projects; and other activities with a possible Federal nexus, such as golf course and firebreak construction.

Several of the remaining populations of this bird are located on State land leased by the Federal government and utilized for military training, particularly by the U.S. Army. In the Waianae Mountains, those populations are found in the following areas—Pahole to Makaha, including both leeward and windward sides; Schofield to Palehua, on the windward side. In the Koolau Mountains, only a fraction of one elepaio population area (Aiea ridge south to the Kahauiki Stream) is under

military control. Therefore, section 7 consultation will be required before any military activities, such as military training, troop movements, or use of live ammunition during training, that may impact the Oahu elepaio may take place.

The Act and its implementing regulations set forth a series of general trade prohibitions and exceptions that apply to all endangered wildlife. The prohibitions, codified at 50 CFR 17.21, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import or export, ship in interstate or commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in the course of otherwise lawful activities. Requests for copies of the regulations regarding listed wildlife and inquiries about permits and prohibitions may be addressed to the U.S. Fish and Wildlife Service, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (telephone 503-231-6241; facsimile 503-231-6243).

At the time a species is proposed, it is the policy of the Service (59 FR 34272) to identify to the maximum extent practicable those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. Likely activities that the Service believes could potentially result in a violation of section 9 of the Act include, but are not limited to, the following: Road or firebreak construction, military troop training or other activities that disturb the normal behavior (e.g., breeding, nesting, feeding) of Oahu elepaio, or damage habitat used by the species. Activities that the Service believes would not likely result in a violation of section 9 of the Act include, but are not limited to, non-destructive activities in areas occupied by Oahu elepaio such as hiking, collecting plants for cultural

usage (e.g., hula halau), and hunting game animals. Activities that occur under a valid incidental take permit issued through a section 7 consultation or section 10 HCP permit would not violate section 9.

Questions regarding whether specific activities will constitute a violation of section 9 of the Act should be directed to the Manager of the Pacific Islands Ecoregion (see **ADDRESSES** section).

If the Oahu elepaio were given Federal protection under the Act, the State of Hawaii Endangered Species Act (HRS, Sect. 195D-4(a)) would be automatically invoked, prohibiting taking and encouraging conservation by State government agencies. State regulations prohibit the removal, destruction, or damage of any federally listed animals found on State lands. Hawaii's Endangered Species Act states, "Any species of aquatic life, wildlife, or land plant that has been determined to be an endangered species pursuant to the Act shall be deemed to be an endangered species under the provisions of this chapter and any indigenous species of aquatic life, wildlife, or land plant that has been determined to be a threatened species pursuant to the Act shall be deemed to be a threatened species under the provisions of this chapter." Further, the State may enter into agreements with Federal agencies to administer and manage any area required for the conservation, management, enhancement, or protection of endangered species (HRS, Sect. 195D-5(c)). Funds for these activities could be made available under section 6 of the Act (State Cooperative Agreements). Thus, the Federal protection afforded to the Oahu elepaio by listing as an endangered species will be reinforced and supplemented by protection under State law.

#### 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 are particularly sought concerning:

(1) biological, commercial, or other relevant data concerning any threat (or lack thereof) to this taxon;

(2) the location of any additional populations of this species and the reasons why habitat should or should not be determined to be critical habitat pursuant to section 4 of the Act;



(3) additional information concerning the range, distribution, and population size of this species; and

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

Final promulgation of the regulation(s) on this species 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 one or more public hearings on this proposal, if requested. Requests must be received within 45 days of the date of publication of this proposal in the **Federal Register**. Such requests must be made in writing and be addressed to the Pacific Islands Ecoregion Manager (see **ADDRESSES** section).

Executive Order 12866 requires each agency to write regulations/notices that are easy to understand. We invite your comments on how to make this notice easier to understand including answers to questions such as the following: (1) Are the requirements in the notice clearly stated? (2) Does the notice contain technical language or jargon that interferes with its clarity? (3) Does the format of the notice (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the notice?

What else could we do to make the notice easier to understand?

Send a copy of any comments that concern how we could make this regulation easier to understand to: Office of Regulatory Affairs, Department of the Interior, room 7229, 1849 C Street, NW, Washington, DC 20240. You may also e-mail the comments to this address: Exsec@ios.doi.gov

#### 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).

#### Paperwork Reduction Act

This rule does not contain any new collections of information other than those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018-0094. For additional information concerning permit and associated requirements for threatened species, see 50 CFR 17.32.

#### References Cited

A complete list of all references and data cited herein, is available upon

request from the Pacific Islands Ecoregion (see **ADDRESSES** section).

Author. The primary author of this proposed rule is Loyal A. Mehrhoff, Pacific Islands Ecoregion (see **ADDRESSES** section). Recent data on the distribution and status of the Oahu elepaio were compiled by Dr. Sheila Conant of the University of Hawaii.

#### 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. Amend § 17.11(h) by adding the following, in alphabetical order under BIRDS, to the List of Endangered and Threatened Wildlife to read as follows:

#### § 17.11 Endangered and threatened wildlife.

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
* BIRDS	*	*	* *		*		*
* Elepaio, Oahu .....	* <i>Chasiempis sandwichensis ibidis.</i>	* U.S.A.(HI) .....	* Entire .....	* E	*	NA	* NA
*	*	*	* *		*		*



Dated: September 29, 1998.

**Jamie Rappaport Clark,**

Director, Fish and Wildlife Service.

[FR Doc. 98-26736 Filed 10-5-98; 8:45 am]

BILLING CODE 4310-55-P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

RIN 1018-AB75

#### Endangered and Threatened Wildlife and Plants; Withdrawal of Proposed Rule to List the Plants *Astragalus lentiginosus* var. *micans* (shining milk-vetch) and *Astragalus lentiginosus* var. *sesquimetalis* (Sodaville milk-vetch) as Threatened

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule; withdrawal.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) withdraws the proposed rule to list *Astragalus lentiginosus* var. *micans* (shining milk-vetch) and *Astragalus lentiginosus* var. *sesquimetalis* (Sodaville milk-vetch) as threatened, pursuant to the Endangered Species Act of 1973, as amended (Act). These plants are two of seven desert *Astragalus* taxa from California and Nevada that were included in a proposed rule published on May 8, 1992 (57 FR 19844). Since the proposed rule was published, management of the lands which support one population of *A. lentiginosus* var. *sesquimetalis* and both locations where *A. lentiginosus* var. *micans* occurs, have been transferred to wilderness under management of the National Park Service at Death Valley National Park. Based on evaluation of this information and public comments, and reevaluation of existing data, the Service has determined that evidence of sufficient threat warranting the listing of *Astragalus lentiginosus* var. *micans* and *Astragalus lentiginosus* var. *sesquimetalis* is not present at this time. The Service will continue to monitor the status of these species and may reevaluate the need for their listing at any time in the future on the basis of new information and/or actual or potential habitat alteration detrimental to the plants' continued existence.

**ADDRESSES:** The complete files for these actions are available for inspection, by appointment, during normal business hours. For *Astragalus lentiginosus* var. *sesquimetalis* contact the Nevada State Office, U.S. Fish and Wildlife Service, 1340 Financial Blvd., Suite 234, Reno,

NV 89502. For *A. lentiginosus* var. *micans* contact the Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003.

**FOR FURTHER INFORMATION CONTACT:** Nevada State Office Supervisor, at the above address; telephone 702-861-6300 (for *Astragalus lentiginosus* var. *sesquimetalis*) or Ventura Field Supervisor, above address; telephone 805-644-1766 (for *Astragalus lentiginosus* var. *micans*).

#### SUPPLEMENTARY INFORMATION:

##### Background

On May 8, 1992, the Service published a proposal in the **Federal Register** (57 FR 19844) to list as endangered or threatened seven desert plant taxa in the genus *Astragalus* which occur in California and Nevada. The proposed listing was followed by a 60-day comment period that closed on July 7, 1992. A final determination on the proposal was delayed by other listing priorities, a limited budget, and the Federal moratorium on final listing actions. After the proposed rule was published, changes in the management of desert lands occurred and new conservation activities were initiated in some of the areas where these taxa occur. Due to these changes and the amount of time that had elapsed since the original publication, the Service reopened a 45-day comment period for the proposed listing on September 3, 1996 (61 FR 46430).

The Service has considered all available information and withdraws its proposal to list these two taxa. The proposal for *Astragalus lentiginosus* var. *micans* is withdrawn because the Service lacks sufficient evidence to indicate that vehicle trespass, visitor use, and the presence of Russian thistle (*Salsola* sp.), an invasive, nonnative plant, currently subject this taxon to significant threat. The proposal for *A. lentiginosus* var. *sesquimetalis* is withdrawn because the Service lacks sufficient evidence to indicate that livestock and vehicle trespass, or development of its habitat are currently threatening this taxon.

*Astragalus lentiginosus* var. *micans* (shining milk-vetch) was described by Rupert Barneby (1956) based on two specimens (co-types) collected on the lower slopes of sand dunes at the southeast end of Eureka Valley, Inyo County, California in 1955. A flowering collection was made by Philip Munz and John Roos in April 1955 and a fruiting specimen was collected by Roos in May 1955. The plant is an erect white-silky perennial with a hardened

base. The leaves range from 4.5 to 9.5 centimeters (cm) (1.8 to 3.7 inches (in.)) in length and consist of 11 to 17 leaflets. The flowers are cream to pale yellow with lavender or indigo distally, and are arranged in loose, 20-to 35-flowered racemes. The pods are stiffly papery, inflated, and often angled upward to a distinct beak (Barneby 1964).

*Astragalus lentiginosus* var. *micans* is restricted to sands of the lower slopes and base of dunes at two sites located about 6 kilometers (km) (4 miles (mi)) apart in the Eureka Valley. These two sites, the Eureka Dunes and the Saline Spur Dunes, represent the entire known historic and the current range of this taxon (Barneby 1956; Spellenberg 1993; Bruce Pavlik, Mills College, *in litt.* 1983 and 1996). Potential populations from Big Dune, Nevada, erroneously noted in the proposed rule as possibly being *A. lentiginosus* var. *micans* (57 FR 19845), had, in fact, already been identified from past collections as *A. lentiginosus* var. *variabilis* (Pavlik, *in litt.* 1980, 1996; R. Barneby, New York Botanical Garden, *in litt.* 1981).

Of the two sites in the Eureka Valley where this plant occurs, the Eureka Dunes, approximately 5 km (3 mi) long and up to 2.4 km (1.5 mi) in width, appears to support the most substantial population of *Astragalus lentiginosus* var. *micans*. As mapped (Bagley 1986), the distribution of this taxon on the Saline Spur Dunes, to the east, is more restricted. In the 1960s and 1970s, increasing off-highway vehicle (OHV) use on the Eureka Dunes destroyed vegetation over the northern end of the lower dunes and flats, an area that supports *A. lentiginosus* var. *micans* (Bureau of Land Management (BLM) 1976, Service 1982). Two other taxa endemic to dunes of the Eureka Valley, *Oenothera californica* ssp. *eurekensis* (Eureka Valley evening primrose, formerly *O. avita* ssp. *eurekensis*) and *Swallenia alexandre* (Eureka Valley dune grass), co-occur with *A. lentiginosus* var. *micans* and were federally listed as endangered in 1978 (43 FR 17910) as a result of this activity. The BLM closed the dunes to OHV use in 1976, although active enforcement of the closure wasn't effective until 1980. Since that time, botanists have noted that *A. lentiginosus* var. *micans* appears to be recolonizing the formerly disturbed areas (Pavlik 1979; Service 1982; Mark Skinner, California Native Plant Society (CNPS), *in litt.* 1995), although censuses before and after the closure are not available. The dunes were managed by the BLM until 1994, when passage of the California Desert Protection Act (CDPA) of 1994 transferred the area to the National Park