

habitat. However, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply; nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) As discussed in the draft economic analysis of the proposed designation of critical habitat for the ABM, the impacts on nonprofits and small governments are expected to be negligible. It is likely that small governments involved with developments and infrastructure projects will be interested parties or involved with projects involving section 7 consultations for the ABM within their jurisdictional areas. Any costs associated with this activity are likely to represent a small portion of a local government's budget. Consequently, we do not believe that the designation of critical habitat for this subspecies will significantly or uniquely affect these small governmental entities. As such, a Small Government Agency Plan is not required.

#### Takings

In accordance with E.O. 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of proposing critical habitat for the ABM. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. In conclusion, the designation of critical habitat for this subspecies does not pose significant takings implications.

#### Author

The primary author of this notice is Rob Tawes of the Daphne Fish and Wildlife Office (see **ADDRESSES** section).

The authority for this action is the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*).

Dated: July 17, 2006.

#### Matt Hogan,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

#### Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the Thorne's Hairstreak Butterfly as Threatened or Endangered

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

**ACTION:** Notice of 90-day petition finding.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Thorne's hairstreak butterfly (*Callophrys [Mitoura] grynea thornei* or *Callophrys [Mitoura] thornei*) as an endangered species under the Endangered Species Act of 1973, as amended. We find the petition does not provide substantial scientific or commercial information indicating the requested action is warranted. Therefore, we will not initiate a further status review in response to this petition. We ask the public to submit to us any new information that becomes available concerning the status of the Thorne's hairstreak butterfly or threats to it.

**DATES:** The finding announced in this document was made on August 8, 2006.

**ADDRESSES:** The complete file for this finding is available for public inspection, by appointment, during normal business hours at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Carlsbad, CA 92011. New information, materials, comments, or questions concerning the Thorne's hairstreak butterfly may be submitted to us at any time at the above address.

**FOR FURTHER INFORMATION CONTACT:** Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section above), by telephone at 760-431-9440, or by facsimile to 760-431-9624. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339, 24 hours a day, 7 days a week.

#### SUPPLEMENTARY INFORMATION:

##### Background

Section 4(b)(3)(A) of the Endangered Species Act (Act) (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial information to indicate that the petitioned action may be warranted. To the maximum extent practicable, this

finding is to be made within 90 days of receipt of the petition, and the finding is to be published in the **Federal Register**.

This finding summarizes information included in the petition and information available to us at the time of the petition review. A 90-day finding under section 4(b)(3)(A) of the Act and § 424.14(b) of our regulations is limited to a determination of whether the information in the petition meets the "substantial information" threshold. Substantial information is "that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted" (50 CFR 424.14(b)).

#### Previous Federal Action

The Thorne's hairstreak butterfly was included as a Category 2 candidate species in our November 21, 1991 (56 FR 58804), and November 15, 1994 (59 FR 58982), Candidate Notices of Review (CNOR). Category 2 included taxa for which information in the Service's possession indicated that a proposed listing rule was possibly appropriate, but for which sufficient data on biological vulnerability and threats were not available to support a proposed rule. In the CNOR published on February 28, 1996, the Service announced a revised list of plant and animal taxa that were regarded as candidates for possible addition to the List of Threatened and Endangered Species (61 FR 7595). The revised candidate list included only former Category 1 species. All former Category 2 species were dropped from the list in order to reduce confusion about the conservation status of these species, and to clarify that the Service no longer regarded these species as candidates for listing. Since the Thorne's hairstreak butterfly was a Category 2 species, it was no longer recognized as a candidate species as of the February 28, 1996, CNOR.

On June 4, 1991, the Service received a petition dated May 27, 1991, from David Hogan of the San Diego Biodiversity Project to list the Thorne's hairstreak butterfly, Hermes copper butterfly (*Hermelycaena [Lycaena] hermes*), Laguna Mountains skipper (*Pyrgus ruralis lagunae*), and Harbison's dun skipper (*Euphyes vestries harbisoni*) as endangered under the Act. In a **Federal Register** notice dated July 19, 1993 (58 FR 38549), the Service announced its finding on the petition. We found that the petition presented substantial information for the Laguna Mountains skipper, but not for the other three butterflies. However, the finding also concluded that other substantial information existed to support a

decision that listing may be warranted for the other three butterflies, including the Thorne's hairstreak butterfly, and announced our intention to continue the formal status review of these species. In a proposed rule for the Laguna Mountain skipper and Quino checkerspot butterflies published on August 4, 1994 (59 FR 39869), the Service clarified that the negative 90-day finding on the Thorne's hairstreak butterfly and the other two butterflies "was made because sufficient information was not available regarding the threats to and biological vulnerability of these" butterflies. Though we have continued and will continue to collect available data on the Thorne's hairstreak butterfly and the other two butterflies, we did not complete the status review of Thorne's hairstreak butterfly pursuant to section 4(b)(3)(A) of the Act.

On October 25, 2004, the Service received an updated petition to list the Thorne's hairstreak and Hermes copper butterflies as endangered from David Hogan of the Center for Biological Diversity. Petitioners also sought emergency listing protection for Thorne's hairstreak and designation of critical habitat for both butterfly taxa concurrent with listing, if warranted. Included in the petition was information regarding the subspecies's taxonomy, biology, ecology, historical and current distribution, present status, and potential causes of decline and imminent threats. In a letter dated May 9, 2005, the Service determined that despite apparent threats to Thorne's hairstreak butterfly, such threats did not appear to be of a magnitude and severity to warrant emergency listing. In our response, we also advised the petitioners that we had insufficient funds to respond to the petitions at that time. On March 15, 2005, we received a 60-day notice of intent to sue filed by the Center for Biological Diversity for lack of response to the Thorne's hairstreak and Hermes copper butterfly petitions. On October 18, 2005, the Center for Biological Diversity filed a complaint for declaratory and injunctive relief challenging our failure to make the required 90-day findings on these two petitions. The Service agreed to submit 90-day petition findings on Thorne's hairstreak and Hermes copper butterflies to the **Federal Register** by August 1, 2006, and if the 90-day findings determined that listing may be warranted, to submit 12-month findings to the **Federal Register** by June 1, 2007. This notice constitutes our 90-day finding on the petition to list the Thorne's hairstreak butterfly. The 90-

day finding on the petition to list the Hermes copper butterfly will be published in the **Federal Register** separately.

In completing this 90-day finding, the Service has reviewed not only the information submitted in the petition, but also information in our files. This includes all of the data we had obtained prior to the July 19, 1993, not substantial finding that would have been considered in any internal status reviews had one been completed, as well as all of the information we have continued to collect on this species to date. Based on all new information and our analysis below, we have determined that the petition does not present substantial scientific or commercial information indicating that listing the Thorne's hairstreak butterfly may be warranted or that a status review or status assessment should be conducted.

#### Taxonomy

Thorne's hairstreak butterfly (*Mitoura thornei*) was originally described by John Brown (1983) based on a specimen collected by Fred Thorne in 1972, near Lower Otay Lake, which is generally west of Otay Mountain. Brown distinguished *M. thornei* from its closest relative *M. loki* on the basis of host preference (cypress (*Cupressus*) versus juniper (*Juniperus*)), the color of the ventral hindwing surface (green versus purple), and geographical isolation.

Brown (1983) described Thorne's hairstreak butterfly at the species rank, which has been accepted by many subsequent authors (Garth and Tilden 1986; Ballmer and Pratt 1988; Emmel et al. 1998; Opler and Warren 2004). However, some authors disagree with this classification. Shields (1984) considers Thorne's hairstreak butterfly a subspecies of *M. loki*, and Scott (1986) lists it as a subspecies of the Cedar hairstreak (*Callophrys gryneus*). The issue of the taxonomic ranking and placement of Thorne's hairstreak butterfly was considered by the Committee on Scientific Names of North American Butterflies in 1999. The committee adopted the recommendation made by Dr. Robert K. Robbins, an expert on Lycaenidae (Research Entomologist with U.S. Department of Agriculture's Systematic Entomology Laboratory at the National Museum of Natural History, Smithsonian Institution), that both *M. loki* and *M. thornei* should be treated as belonging to the superspecies, *C. gryneus* (Faulkner and Klein 2005). Currently, the committee's Checklist of North American Butterflies (North American Butterfly Association (NABA) 2004) includes *M. thornei* and *M. loki* as

*Callophrys gryneus thornei* and *Callophrys gryneus loki*, respectively.

The petitioner deferred to other experts regarding the appropriate classification, taxonomic rank, of Thorne's hairstreak butterfly (i.e., species or subspecies). In 2004, the Service contracted with Dr. Richard W. Van Buskirk (Pacific University in Forest Grove, Oregon) to review the taxonomic status of Thorne's hairstreak butterfly. Following Van Buskirk's recommendation (Van Buskirk 2004), the Service recognizes Thorne's hairstreak butterfly as the subspecies *Callophrys gryneus thornei*.

#### Description

Adult Thorne's hairstreak butterflies are approximately 1.0 to 1.2 inches in wingspan (25.4 to 30.5 millimeters) (Brown 1983). The forewings and hindwings are rich reddish brown with dark brown shading on the margin. The ventral surface forewing is mahogany brown with traces of lavender overscaling. The males bear well-developed scent pads on the forewings, and the hindwings are tailed. Eggs are round (echinoid), light green, and laid singly on the food plant. Garth and Tilden (1986) provide a description of the butterfly's early stages.

The Thorne's hairstreak butterfly is bivoltine (has two flight periods per year) and overwinters in the pupal stage. The pupation time for first generation is about 10 to 15 days, with emergence occurring in late February through March or possibly early April, depending on rainfall. The second generation emerges in June. A third brood may take place in September if summer rains occur (Faulkner and Klein 2005).

Eggs incubate in 7 to 14 days. The first instar larvae initially bore into the young stems of the host plant, Tecate cypress (*Cupressus forbesii*), but later become external feeders. Pupation is in the duff and leaf litter at the base of the host plant, and larvae feed on young cypress stems. Mature larvae are vivid green with two irregular white crescents on each segment, forming a longitudinal white stripe along each side of the larvae (Faulkner and Klein 2005).

Conifer-eating larvae within family Lycaenidae are an unusual occurrence. Within San Diego County, its congeners *Callophrys gryneus loki* (juniper hairstreak) and *Callophrys nelsoni* (*Nelson's hairstreak*) have only been found in association with California juniper (*Juniperus californica*) and incense cedar (*Calocedrus decurrens*) host plants, respectively (Faulkner and Klein 2005).

### Habitat

According to Brown (1983), Thorne's hairstreak butterfly is restricted to its larval host plant, Tecate cypress. Associated with chaparral ecosystems in southern California and northern Baja California, Tecate cypress occurs primarily on north-facing slopes from near sea level to over 4,200 feet (ft) (1,300 meters (m)) in elevation (Dunn 1986). Although some experts hypothesized that larvae eat only mature Tecate cypress at least 25 to 30 years old (Klein and Williams 2003; Faulkner and Klein 2005), recent post-fire observations of adults in three stands of cypress trees less than 9 years old within a 1996 fire footprint (Faulkner and Klein 2005) do not support that hypothesis. Thus, the best available information indicates Thorne's hairstreak butterflies can use host plants as young as 9 years of age.

Adult Thorne's hairstreak butterflies are known to nectar on *Eriogonum fasciculatum* (California buckwheat), *Ceanothus tomentosus* (Ramona lilac), and *Lotus scoparius* (deerweed), in the vicinity of Tecate cypress stands (Faulkner and Klein 2005).

Thorne's hairstreak butterfly dispersal behavior is not well known. An individual was observed nectaring on deerweed plants 0.25 miles (mi) (0.4 kilometer (km)) away from the nearest Tecate cypress (Faulkner and Klein 2005). Adults have been observed nectaring on California buckwheat as much as 197 ft (60 m) away from Tecate cypress trees (Faulkner and Klein 2005). Mattoni (1998) gave estimated relative movement values for three species of *Callophrys* butterflies in the greater Los Angeles area. Two species were estimated to move between 330–3300 ft (100–1000 m), and one from 3300 ft to 30 mi (1–50 km). Among butterflies, the genus *Callophrys* appears to be relatively sedentary.

### Historical and Current Range/ Distribution

Thorne's hairstreak butterfly is known only from the vicinity of Otay Mountain in southern San Diego County, California, in association with its larval host plant, Tecate cypress. Though not common within the limits of its range, Tecate cypress occurs in widely scattered and isolated "floristic islands" in the chaparral of southern California and Baja California Norte (Griffin and Critchfield 1972; Dunn 1986; Minnich 1987). In California, Tecate cypress is found on Guatay Mountain, Otay Mountain, and Tecate Peak in San Diego County; and on Sierra Peak and in Coal Canyon in Orange County (Dunn 1986).

Historically, the Thorne's hairstreak butterfly has been reported on Otay Mountain in San Diego County, primarily in Little Cedar Canyon and Cedar Canyon (Klein and Williams 2003). An unconfirmed historic observation of the subspecies in Orange County on private land has been reported (R. Stanford pers. comm. in Faulkner and Klein 2005). Multiple, consecutive surveys over 10 years within areas containing Tecate cypress on Tecate Peak and Guatay Mountain in San Diego County and some stands in Baja California, Mexico, conducted annually during the late 1980s and early 1990s, did not yield any Thorne's hairstreak butterflies (Anderson 2003). However, we do not have documentation of these surveys and are unable to determine what proportion of the Tecate cypress stands on Tecate Peak and Guatay Mountain in San Diego County were surveyed. Therefore, it is unclear whether these surveys efforts constitute comprehensive surveys of the Tecate cypress stands in these areas. Limited sampling in the Sierra Peak-Coal Canyon area in Orange County did not yield any Thorne's hairstreak butterfly observations (Brown 1983).

More than 20 groves of Tecate cypress are documented by botanical collections or aerial imagery from Baja California Norte, Mexico, indicating potential distribution of the Thorne's hairstreak butterfly in Mexico. Minnich (1987) described the northernmost stands of Tecate cypress in Mexico as extensions of U.S. populations at the border. As stated above, some surveys have been conducted in Tecate cypress stands in Baja California, Mexico for Thorne's hairstreak butterflies during the late 1980's and early 1990's. However, since we do not have documentation of these surveys, it is unclear what proportion of the Tecate cypress stands in Baja were surveyed. Therefore, more investigation is required to determine the possible extent of undiscovered populations of Thorne's hairstreak butterfly in Tecate cypress stands in Mexico.

### Population Estimates/Status

No specific data on Thorne's hairstreak butterfly abundance or population dynamics and distribution exists, although a number of apparently discrete occupied locations have been identified. The petition states that fewer than 10 historically occupied locations have been identified on Otay Mountain (Klein and Williams 2003) primarily within designated wilderness administered by the Bureau of Land Management (BLM). The status of Thorne's hairstreak butterfly and its habitat (areas dominated by Tecate

cypress over 6 ft (2 m) tall) was evaluated as part of a post-2003 Otay/Mine fire reassessment of species covered by the section 10(a)(1)(B) permit associated with the San Diego Multiple Species Conservation Plan (MSCP). Surveys of Tecate cypress stands conducted in 2004 revealed the presence of 4 to 5 areas occupied by the subspecies (Martin 2004; Klein 2006). However, Martin (2004) and Klein (2006) acknowledge that not all cypress stands were surveyed due to accessibility. No quantitative data on population size exist.

### Threats Analysis

In the following discussion, we respond to each of the major assertions made in the petition, organized by the Act's listing factors. Section 4 of the Act and its implementing regulations (50 CFR 424) set forth the procedures for adding species to the Federal list of endangered and threatened species. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1) of the Act. The five listing factors are: (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.

This 90-day finding is not a status assessment and does not constitute a status review under the Act. A brief discussion of how each of the five listing factors applies to the Thorne's hairstreak butterfly follows.

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

The petition, its appendices, and referenced documents discuss the following threats that we have grouped under Factor A: wildfire, prescribed fire, grazing, and vehicle access and recreation.

#### Wildfire

*Information provided by the petitioner.* The petitioner asserts that Thorne's hairstreak butterfly is highly and immediately vulnerable to extinction due to the threat of wildfire as a result of direct mortality of individuals and indirect mortality due to loss of the subspecies' larval host plant, Tecate cypress. (The threat of wildfire as it relates to direct mortality of individual butterflies is discussed under Factor E.) They assert that one

single new fire could cause the extinction of this butterfly. The 2003 Otay/Mine fire served as an example of the threat of fire to the butterfly when it burned 68 percent of the Thorne's hairstreak butterfly habitat (Betzler et al. 2003). The petitioner claims the number of fires greatly exceeds natural fire frequencies in southern California's chaparral ecosystems, and the excessive fires have reduced stands of mature Tecate cypress utilized by Thorne's hairstreak butterflies.

The petitioner provided a map illustrating multiple fires that have burned through and near Thorne's hairstreak butterfly locations within the last century. According to the petition, increased human populations and utilization of wildlands correlates with increased southern California wildfire frequency (Keeley et al. 1999; Keeley 2001 [document not submitted with petition]; Keeley and Fotheringham 2003; Wells et al. 2004).

The petitioner cited two references, Brooks et al. (2002 [correct citation 2004]) and Keeley and Fotheringham (2003), which provide examples where excessive fire harms chaparral ecosystems and dependent species in a number of ways. The petition quoted Keeley and Fotheringham (2003), "\* \* \* ecosystem health of shrublands is threatened not by lack of fire but by high fire frequencies that exceed the resilience of many species." The petitioner claims that excessive fire contributes to expansion of highly flammable, invasive, alien grasses (D'Antonio and Vitousek 1992) and forbs, contributing in turn to an even greater fire frequency. Excessively frequent fire (more than once a decade) may prevent nonsprouting chaparral shrubs from reaching maturity, thereby eliminating these species entirely from the system (Keeley and Fotheringham 2003).

According to the petitioners, frequent fire also leads to type conversion and replacement of chaparral ecosystems with alien plant species (Keeley 2001; Keeley and Fotheringham 2003). The petitioner asserted that fire-induced conversion of Tecate cypress and surrounding chaparral to vegetation dominated by invasive plant species reduces Thorne's hairstreak butterfly habitat through loss of host and nectar plants. Moreover, the petitioner reported that Zedler et al. (1983) documented vegetation conversion in the San Ysidro Mountains within 1 mi of Thorne's hairstreak butterfly populations. Based on a personal communication with Michael Klein, a Thorne's hairstreak butterfly expert, the petitioner also refers to anecdotal

observations that exotic grasses and forbs appear to be increasing in former Tecate cypress habitat following the 2003 fire.

*Analysis of the information provided in the petition and available to us at the time of petition review.* Though cypress trees do not survive fire, fire is integral to initiating cone opening and seed dispersal and is, therefore, critical for successful regeneration of Tecate cypress stands (Zedler 1977; Dunn 1986). Cone production begins as early as 5 to 7 years of age, but is sporadic until the trees reach about 30 years of age, and maximum cone production may not be achieved until 50 years or later (Zedler 1981; Dunn 1986). For cypress population levels to be maintained, the interval between fires must be long enough to permit enough trees to produce sufficient cones and seeds to replace the trees consumed in the fire. Zedler (1981) noted that if [all] stands of Tecate cypress were burned every 33 years, his "data suggest that near extinction would result after three or four fires. Cone and seed production depend on factors other than age alone and a large variation in average tree size and hence cone production exists within stands."

Faulkner and Klein (2005) agreed with Brown (1993) who stated that, "[c]haparral fires probably represent the greatest threat to \* \* \* [Tecate cypress] and its associated insect fauna, including Thorne's hairstreak butterfly." Though human-induced ignitions have been a part of the California landscape for more than 10,000 years, humans "likely have had a greater influence in the twentieth century due to the near exponential rise in population density and fire frequency in the southern part of the state" (Keeley and Fotheringham 2003). The frequency of smaller fires proximal to the Mexican Border may have increased on Otay Mountain, and, as the petitioner claims, this may be due to increasing ignition by illegal immigrants and associated border patrol activities since the 1990s (Jacob 1999, California Department of Forestry and Fire prevention (CDF) 2006). For example, in 2004, over 100 fires were reported on Otay Mountain (Woychak 2006). However, the majority of these fires were relatively small and localized (Porter 2006) and only affected small percentages of areas likely to be Thorne's hairstreak habitat patches associated with Tecate cypress.

The majority of the studies examining the impacts of fire frequency on California plant communities have focused primarily on overall impacts to dominant vegetative types, such as coastal sage scrub, chaparral, hardwood

conifer forest, conifer forest, shrublands, and desert shrublands (Zedler 1981; Zedler et al. 1983; Keeley et al. 1999; Keeley and Fotheringham 2003; Wells et al. 2004). In a GIS modeling study, Wells et al. (2004) largely concurred with Keeley et al. (1999) that increasing human population (especially at lower elevations) has resulted in a greater number of fires and an increase in area burned overall in Southern California. However, looking at fire frequency for chaparral in San Diego County specifically, Wells et al. (2004) concluded that the "trend in burning in chaparral is virtually flat over the past century, and if the years following 1950 are considered, there has been a marked decrease in area burned since then."

Few studies have examined the association between fire frequency and population dynamics of Tecate cypress specifically. Dunn (1985, 1986) concluded at the time of his work in the 1980s that the Tecate cypress population on Otay Mountain, the largest population in California (about 5,900 acres (2,400 hectares)), was "in no immediate danger" and that "a fire would do little damage" because the majority of the trees were over 40 years old and the threat of fire associated with the human interface was relatively low. In fact, Dunn (1984) had concluded in his Master's thesis that, at that time, no need existed for strict fire exclusion on Otay Mountain. As stated above, increasing human population has resulted in a greater number of fires in California. However, while portions of the Tecate cypress stands on Otay Mountain were burned in 1996 and again in the 2003, no recent data exist documenting the actual extent of impact to Tecate cypress specifically. Although Zedler and others (1983) documented a decline in native shrub abundance with the introduction of annual ryegrass (*Lolium multiflorum*) following two fires in 1979 and 1980 on Otay Mountain (i.e., the petitioner's claim of type conversion in the San Ysidro Mountains within 1 mi of Thorne's hairstreak butterfly populations), this work did not involve Tecate cypress and is not applicable to the species. Moreover, in a recent study of the fire frequency and population trend in four Tecate cypress populations in California, cited on page 9 of the petition (cited as "Ansary *in print*"), de Govenain and Ansary (*in press*) reported that the Otay Mountain, Tecate Peak, and Guatay populations "appeared to be stable or potentially increasing" (i.e., the rate of population increase or  $\lambda > 1$ ), while only the Coal Canyon/Sierra Peak population in Orange County "appeared to be

declining” due to a shorter fire interval at that site.

We used GIS data in our files to overlay Tecate cypress distribution on the petition map illustrating multiple fires that have burned through and near Thorne’s hairstreak butterfly locations within the last century, and determined the majority of Tecate cypress was within one or two fire footprints during the 93 year period from 1910 to 2003. Therefore, information in our files does not support the claim that the fire frequency is high relative to Tecate cypress reproductive maturity.

As cited in the petition, 68 percent of the Thorne’s hairstreak butterfly habitat (Tecate cypress) burned during the 2003 Otay/Mine fire, a reduction from 5,577 ac (2,257 ha) to 1,778 ac (720 ha) according to preliminary estimates by Betzler et al. (2003). Nonetheless, butterfly occupation was documented after the 2003 fire in 2004 and 2005, mostly on the southwest slope of the mountain within the 1996 burn area that did not burn in 2003 (Martin 2004; Faulkner and Klein 2005; Klein 2006). While the fire footprint was estimated by Betzler et al. (2003) to have covered 68 percent of the Tecate cypress habitat on Otay Mountain, the amount of Tecate cypress that actually burned is likely less. The source cited by Betzler et al. (2003) was a report prepared by the Interagency Burned Area Emergency Response Team (IBAERT 2003), which gives vegetation mortality estimates in categories of 0 to 25 percent, 26 to 75 percent, and greater than 76 percent. It is not clear how Betzler et al. (2003) calculated the 68 percent burned habitat area, however it could have been based on the percent of mapped Tecate cypress distribution within those burn categories given by IBAERT (2003); therefore, Betzler et al. (2003) may not have known how much Tecate cypress within the fire footprint was actually killed.

Limited post-fire monitoring in 2004 revealed the presence of at least five unburned stands of mature Tecate cypress (defined for the survey as a patch of at least 50 trees greater than 2 meters tall), four of which were determined to be occupied by adult Thorne’s hairstreak butterflies at the time of the survey (Martin 2004). Two areas adjacent to or within canyons known to contain Tecate cypress were not surveyed in 2004. At least one area, the lower portion of O’Neal Canyon may contain a significant stand since the upper portion supports the largest stand of extant cypress (Martin 2004). According to Martin (2004), these five stands constituted approximately 166 ac (36 ha). However, since he was not able

to survey all potential habitat areas and his analysis was limited to stands of at least 50 mature trees, additional stands and stands of less than 50 mature and immature trees may have persisted after the fire.

Also, de Gouvenain and Ansary (*in press*) hypothesize that the steep north-facing slopes and rocky outcrops where Tecate cypress is found may function as refugia for Tecate cypress during fire events in the surrounding chaparral habitat. A comprehensive survey of Tecate cypress on Otay Mountain is needed in order to accurately determine the extent of the impact caused by the 2003 fire and to what extent the Thorne’s hairstreak butterfly is utilizing the remaining Tecate cypress habitat (at least 3,799 ac (1,537 ha)).

With regard to curtailment of habitat and range by fire, it is important to consider that Thorne’s hairstreak habitat distribution on Otay Mountain is slightly greater than that of its larval host plant (Tecate cypress), and must be based on adult resource use and movement between and on the periphery of host plant stands. Given the evolutionary relationship of Thorne’s hairstreak and Tecate cypress with fire, it is likely burned areas devoid of woody vegetation and reduced butterfly population density after fire facilitate movement between unburned host plant patches. For example, in a mark-recapture study of *Parnassius smintheus* (Papilionidae) butterflies, Roland et al. (2000) concluded “butterflies move readily through open meadow but that forests are twice as resistant to butterfly movement. Butterflies also tended to stay at sites with high numbers of butterflies, but readily emigrate from sites with small populations.” Roland et al.’s (2000) results are a good example of how differences in habitat structure and population density can affect butterfly movement. Differences in population densities and habitat structure are known to commonly affect movement patterns of butterflies (Ries and Debinski 2001; Service 2003).

Along with the direct loss of Tecate cypress, the Thorne’s hairstreak butterfly’s host plant, the petitioners claim that increased fire frequency results in the conversion of Tecate cypress and surrounding chaparral to vegetation dominated by invasive plant species, further reducing the amount of host and nectar plants. As discussed above, it appears that Tecate cypress populations on Otay Mountain are stable and potentially increasing overall and that frequency of fire in chaparral communities in San Diego County over the past century is stable or potentially

decreasing overall. Also, although Zedler et al. (1983) documented a decline in native shrub abundance following two fires in 1979 and 1980 on Otay Mountain, they state that changes to the vegetative community following the 1979 fire alone are similar to those commonly seen in chaparral fires. Their study was not conducted in an area occupied by Tecate cypress. The common pattern after chaparral fires is for native and introduced annual herbs to dominate for the 1st year and then gradually decline as the cover of shrub and subshrubs increases (Zedler et al. (1983). They reported drastic reductions in several chaparral species, particularly those with limited dispersal and specialized germination requirements, after the same area that burned in 1979 burned again in 1980. However, they state that over time, it is likely that coastal sage scrub species, particularly those that are vigorous invaders of man-made and natural disturbance, including *Eriogonum fasciculatum*, a nectar source for Thorne’s hairstreak butterfly, are likely to reoccupy the area. Therefore, it is likely that while the vegetative community may undergo short-term conversion, over time, native, fire adapted species will reestablish.

In sum, information in the petition and available to us does not substantiate a recent decline or downward trend in the extent of Tecate cypress on Otay Mountain, the host plant of the Thorne’s hairstreak butterfly, as a result of increased fire frequency and associated alien plant invasion.

#### Prescribed Fire

*Information provided in the petition.* The petitioner states that while prescribed fire does not appear to be planned for the San Ysidro Mountains, it could compound the threat of excessive fire to Thorne’s hairstreak butterflies and Tecate cypress if implemented in the future.

*Analysis of information provided in the petition and available to us at the time of petition review.* No evidence exists to support the petitioner’s claim that prescribed burning would be allowed within the Otay Mountain Wilderness. The current BLM policy is 100 percent fire suppression on Otay Mountain (Woychak 2006).

#### Grazing

*Information provided in the petition.* The petitioner stated that BLM authorizes grazing on Otay Mountain in an area occupied by Thorne’s hairstreak butterfly prior to the 2003 Otay/Mine fire and near the “last five known remaining populations.” The allotment is now vacant according to agency staff,

but BLM is actively considering renewal of this grazing lease, according to a Notice of Proposed Action dated May 26, 2004.

The petitioner claimed that renewal of the Otay Mountain grazing allotment lease would result in significant direct and indirect effects similar to those identified by the Service for the Quino checkerspot butterfly (January 16, 1997; 62 FR 2313). The Quino checkerspot butterfly recovery plan (Service 2003) noted that grazing may harm the butterfly through destruction of larval host plants, soil compaction, degradation of cryptogamic soil crusts, and trampling of eggs and larvae. The invasion of alien plants may be facilitated by degradation of soil crusts. The recovery plan recommends phasing out of commercial grazing in Quino checkerspot butterfly's habitat.

The petitioner also stated that grazing on the Otay Mountain allotment could harm the Thorne's hairstreak butterfly and Tecate cypress even if grazing is excluded around existing populations of these species because grazing could lead to the introduction of invasive alien plants. These plants could increase fire frequency, resulting in the loss of populations of sensitive species and habitat degradation, and may result in subsequent further expansion of alien plants through additional disturbance from fire.

*Analysis of information provided in the petition and available to us at the time of petition review.* We confirmed that an active 5,522 acre (2,235 ha) BLM grazing allotment exists on Otay Mountain (Doran 2006) that overlaps occupied Thorne's hairstreak butterfly habitat. Approximately one-third of Tecate cypress woodland on the mountain (2,026 acres (820 ha)) occurs within the Otay Mountain Grazing Allotment on the north side of the mountain (Anderson and Love 2006). Approximately half (20 acres (8 ha)) of a patch of occupied mature Tecate cypress trees was confirmed to be within the southern grazing allotment boundary in 2004 (Anderson and Love 2006). However, the grazing allotment is in a non-use status, which means that the allottee does not intend to graze in the near term, and grazing is not allowed in the Cedar Canyon Area of Critical Environmental Concern (Doran 2006). Also, Tecate cypress woodland would not often be very accessible to cattle within the allotment, because of the extremely steep, thickly vegetated terrain associated with Tecate cypress stands.

We were unable to confirm the petitioner's assertion that the renewal of the grazing allotment lease will likely

result in significant direct and indirect harm to Thorne's hairstreak butterflies and Tecate cypress populations. The petitioner failed to provide specific examples of negative impacts from grazing on Thorne's hairstreak butterflies and Tecate cypress. Comparison to Quino checkerspot butterfly grazing threats is not appropriate because host plants for that subspecies, unlike Tecate cypress, are herbaceous annuals directly affected by grazing and type-conversion of open-canopy vegetation.

#### Vehicle Access and Recreation

*Information provided by the petitioner.* The petitioner claims BLM's emphasis on recreation in the San Ysidro Mountains, and maintenance of vehicle access likely increases the risk of new fires. BLM lands occupied by the subspecies are located within the agency's designated Otay Mountain Wilderness. Roads grandfathered into the wilderness designation generally allow unrestricted public access in close proximity to Thorne's hairstreak butterfly populations except during special closures.

*Analysis of information provided in the petition and available to us at the time of petition review.* Although public access is allowed, the Otay Mountain Wilderness is remote, and few people visit the wilderness area. Because of the proximity of the wilderness area to the United States-Mexico international border, border operations (e.g., surveillance and patrolling) are common throughout the wilderness. Traffic is concentrated on few main roads adjacent to occupied Thorne's hairstreak butterfly habitat. Border patrol vehicles and vehicles accessing the wilderness may increase the risk of new fires; however, fires that are potentially started by the border patrol would be reported immediately. Since access by the public is rare, and border patrol vehicle ignitions would be reported, we believe vehicle access and recreation is not a significant threat to the subspecies. The petitioner neglected to provide specific examples of vehicle access and recreation increasing the risk of new fires to Thorne's hairstreak butterfly habitat (i.e., Tecate cypress stands), and we are unaware of any documentation that directly links vehicles and recreation as a threat to this subspecies.

Because there is no clear threat of fire to Tecate cypress or Thorne's hairstreak butterfly, and grazing and recreation impacts appear negligible, we conclude that the petition and other available information does not constitute substantial scientific information

indicating listing Thorne's hairstreak butterfly may be warranted due to Factor A (destruction, modification, or curtailment of habitat or range).

#### B. The Overutilization for Commercial, Sporting, Scientific, or Education Purposes

The petitioner did not provide information with respect to Factor B. We have no information regarding the overutilization for commercial, sporting, scientific, or education purposes for Thorne's hairstreak butterfly.

#### C. Disease or Predation

The petitioner did not provide any information with respect to disease nor do we have any information regarding impacts of disease on Thorne's hairstreak butterfly.

#### Predation

*Information provided in the petition.* The petitioner stated that experts suspect birds, predatory insects, parasitic insects, and spiders prey upon the Thorne's hairstreak butterfly. Birds may prey on either larvae or adults. The harmful effects of otherwise normal predation or parasitism might be exacerbated by population reduction from excessive fires.

*Analysis of information provided in the petition and available to us at the time of petition review.* The petitioner did not provide specific information, nor was there any information available in our files, documenting that the Thorne's hairstreak butterfly may be endangered by predation.

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

The petition and referenced documents discuss three regulatory mechanisms that may provide some Thorne's hairstreak butterfly conservation, including (1) the Wilderness Act, (2) BLM activities, and (3) the San Diego Multiple Species Conservation Plan (MSCP).

#### Wilderness Act and BLM Activities

*Information provided by the petitioner.* While the petition acknowledged BLM lands occupied by the subspecies are protected from urban development and mining by the nature of the location within the Otay Mountain Wilderness Area (designated under the Wilderness Act), the petitioner asserted this area is not intensely managed, and BLM does not implement proactive conservation measures for either the Thorne's hairstreak butterfly or Tecate cypress. In addition, the petitioner maintained that BLM does not recognize the Thorne's hairstreak butterfly as a "sensitive

[sub]species.” The petitioner further claims Thorne’s hairstreak butterfly populations face an additional, unique risk of excessive fire as U.S. border enforcement has inadvertently directed illegal Mexican immigrant crossings away from coastal urban areas toward wildland areas east of Otay Mesa. The petitioner contends that fire and land management agencies often identify illegal immigrant’s campfires and arson as the cause of border-area wildfires.

*Analysis of information provided in the petition and available to us at the time of petition review.* Congress formally designated BLM lands on Otay Mountain as the Otay Mountain Wilderness in 1999 (Otay Mountain Wilderness Act, December 11, 1999). The inclusion of these occupied habitats within a designated Wilderness provided additional significant protection for this area and complemented BLM’s objective to manage these public lands to provide protection and enhancement for biological values. The Wilderness Act of 1964 (16 U.S.C. 1131) restricts vehicles, new developments, chainsaws, mountain bikes, leasing, and mining from the wilderness area.

As cited in the petition, BLM’s South Coast Resource Management Plan guides management and protection on sensitive species and their habitat. At the time of the petition, BLM did not recognize Thorne’s hairstreak as a “sensitive” subspecies; however, the subspecies was recently officially designated as “sensitive,” elevating it to a higher management priority level (Schlachter 2006).

As stated in the petition, no formal plans to specifically manage or monitor for Thorne’s hairstreak butterfly currently exist. Thorne’s hairstreak butterfly populations may face an additional, unique risk of excessive fire due to activities related to illegal Mexican immigrant crossings east of Otay Mesa (Jacob 1999, CDF 2006). However, since at this time it appears the primary source of the wildfire threat to the subspecies is accidental wildfire caused by illegal immigrants, and border security is currently greater than before to prevent illegal immigration, fire prevention is indirectly maximized by border patrol activities. Fire prevention measures include formation of the Border Agency Fire Council, (BAFC) a multi-agency council formed due to the wildfire threat to human life and the environment (Jacob 1999). The goals of the BAFC are to make people in the border area aware of the dangers of wildfire and encourage them to be careful with fire; preferably not to start any campfires, but if they do, to

understand the fire must be completely out before they abandon it (CDF 2006). BAFC member agencies represent a collaborative effort to prepare the area for fire fighting purposes, including establishment of three helispots and construction of spur roads (BAFC 2006). Signs in Spanish posted across the mountain warn of the danger of starting campfires and advise against it. Also, BLM’s current policy is 100 percent fire suppression on Otay Mountain (Woychak 2006). Therefore, while a formal management plan would benefit the subspecies to guide long-term monitoring and other types of conservation actions, it would not necessarily change current fire prevention and suppression policies and activities.

#### San Diego MSCP

*Information in the petition.* The petitioner stated that the Thorne’s hairstreak butterfly is recognized as a “covered species” under the MSCP and some conservation activities in the San Ysidro Mountains occur, but these activities do not appear to have reduced the primary threats to the subspecies, especially from excessive wildfire.

*Analysis of information provided in the petition and available to us at the time of petition review.* Thorne’s hairstreak butterfly is covered under the MSCP, and the MSCP recognizes that “a fire management program would be needed for prevention of catastrophic fires and long term viability of its host plant.” No fire management plan has been written to date, nor has BLM developed a long-term management or monitoring plan for the butterfly (J. Schlachter 2006). However, the current BLM policy is 100 percent fire suppression on Otay Mountain; BLM has received allocations to complete a wilderness management plan; and a fire management plan is expected to be completed after the wilderness plan and will focus on complete fuel suppression (Woychak 2006).

The Service considers the current BLM activities and policies, and the MSCP adequate for protection of the subspecies. If the MSCP or referenced activities and policies are modified in the future, the adequacy of these measures to protect the Thorne’s hairstreak butterfly should be evaluated at that time. The Service does not believe the absence of the cited plans poses a substantial threat such that the Thorne’s hairstreak butterfly requires additional regulatory mechanisms to be developed. Therefore, the petition and other information in our files does not present substantial information that the subspecies is threatened at this time by

the inadequacy of existing regulatory mechanisms across all or a significant portion of its range.

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

The petition, its appendices, and referenced documents discuss the following threats that we have grouped under Factor E: wildfire, habitat fragmentation, vulnerability of small and isolated populations, and global climate change.

#### Wildfire

*Information provided in the petition.* The petitioner stated the Thorne’s hairstreak butterfly cannot escape fire. Pupae and larvae are likely killed when fire burns Tecate cypress stands and nearby chaparral. Adults are also likely killed by fire, due to their habit of remaining close to their host plant, and the likelihood of their escape being outpaced by an approaching fire. The petition claims excessive fires over the last several decades have reduced Thorne’s hairstreak butterfly population numbers and disrupted metapopulation dynamics and stability.

*Analysis of information provided in the petition and available to us at the time of petition review.* The persistence of the Thorne’s hairstreak butterfly was considered questionable after the 2003 Otay/Mine fire, since the fire footprint appeared to cover all areas known to be occupied by the subspecies (Anderson 2003; Klein and Williams 2003). However, adult Thorne’s hairstreak butterflies were documented from four Tecate cypress stands after the 2003 fire on the southwest slope of the mountain (Martin 2004; Faulkner and Klein 2005; Klein). Therefore, as discussed under Factor A, it appears that some Tecate cypress habitat did not burn during that fire and that the actual extent of occupied habitat on Otay Mountain has not yet been determined. The petition included a map delineating large fire footprints from 1910 to 2003. We used GIS data in our files to overlay all known occupancy records on the fire map and determined that 9 out of the 12 Thorne’s hairstreak butterfly observations (point data) and the majority of Tecate cypress distribution are within one or two fire footprints during the 93 year period from 1910 to 2003. The apparent ability of Thorne’s hairstreak butterflies to recolonize immature Tecate cypress stands less than 9 years post-fire (Martin 2004; Faulkner and Klein 2005; Klein), compared to the relatively low large-fire frequency indicated by the petition map of less than 2 fires per 93 years, contradicts petition claims of a direct

mortality extinction threat due to high fire frequency on Otay Mountain. Also, as discussed under Factor A, the steep canyons where Tecate cypress is found may provide refugia during a fire.

While immature Thorne's hairstreak butterflies have not been reported from younger stands surveyed after fire, this may be attributed to the fact that they are small and cryptic, making them difficult to detect, and spend most of their larval stage (early instars) within the tissue of the Tecate cypress or buried as pupae in the leaf litter on the ground. Also, post-fire monitoring has been limited. We are only aware of post-fire monitoring being conducted in 2004. Therefore, additional monitoring would be needed to determine the survival and recolonization rate of immature and adult butterflies following a fire.

The petitioner did not provide information or data to substantiate the claim that excessive fires over the last several decades have reduced Thorne's hairstreak butterfly population numbers and disrupted metapopulation dynamics and stability. As stated in the "Population Estimates/Status" section of this finding, no quantitative data on population size exists nor do we have any information on the dispersal or movement behavior of this subspecies. Without this information, it is not possible to determine the subspecies' population structure (e.g., metapopulation or panmictic) and subsequently, the impact of fire on population numbers and structure.

#### Habitat Fragmentation

*Information provided in the petition.* The petitioner claimed fragmentation of Thorne's hairstreak butterfly populations, through fire, type conversion, and roads, poses a significant threat to the subspecies. The petitioner noted that habitat fragmentation reduces the area of Thorne's hairstreak butterfly habitat and isolates populations from one another. In addition, the petitioner claimed that fragmentation expands edge habitat, resulting in further stress on fragmented or small populations.

*Analysis of information provided in the petition and available to us at the time of petition review.* Neither the petition nor information available support the claim that fragmentation threatens the subspecies existence within its known distribution on Otay Mountain. The best available information indicates Thorne's hairstreak butterfly is capable of recolonizing immature Tecate cypress stands in recently burned areas. For example, as stated above, re-

colonization of immature stands after a 1996 fire has been documented (Faulkner and Klein 2005). Also, as discussed above, surveys of potentially occupied habitat on Otay Mountain are incomplete, and, as discussed under Factor A, habitat patch distribution as defined by adult movement has not been determined.

#### Vulnerability of Small and Isolated Populations

*Information provided in the petition.* The petitioner asserted that endemic taxa such as the Thorne's hairstreak butterfly are generally considered more prone to extinction than widespread species due to their restricted geographic range. According to the petition, the common factors that increase the vulnerability of small and isolated populations to extinction are demographic fluctuations, environmental stochasticity (i.e., random events), and reduced genetic diversity.

*Analysis of information provided in the petition and available to us at the time of petition review.* Populations of Thorne's hairstreak butterfly are likely subject to population fluctuations. If occupied habitat is temporarily fragmented by fire, fluctuation in numbers could render small populations more vulnerable to stochastic extirpation. Small populations and isolation could subject the butterfly to genetic drift and restricted gene flow that may decrease genetic variability over time and could adversely affect the subspecies' viability. However, we lack the genetic or demographic evidence to support such claims in the petition, and potential isolation of small populations by fire appears to be short-term. Furthermore, surveys of potentially occupied habitat on Otay Mountain are incomplete and estimates of population status/size do not currently exist. Therefore, information in our files does not indicate small population size is a threat to this subspecies.

#### Global Climate Change

*Information provided in the petition.* The petitioner asserted that butterflies are particularly sensitive to small changes in microclimates, such as fluctuations in moisture, temperature, or sunlight. According to the petition, studies of Edith's checkerspot (*Euphydryas chalceona edithi*) have verified speculation that whole ecosystems may move northward or shift in elevation as the Earth's climate warms (Parmesan and Galbraith 2004).

*Analysis of the information provided in the petition and available to us at the*

*time of petition review.* The petitioner did not provide specific information validating the claim that the Thorne's hairstreak butterfly may be endangered by global climate change. We recognize recent evaluations by Parmesan and Galbraith (2004) that whole ecosystems are seemingly being shifted northward. However, neither the petition nor our files provides anything more than speculation on the type, magnitude, or temporal effects of ecosystem changes that may be brought about by regional climate change. We are not aware of any documentation available or provided by the petitioner that directly links global warming as a threat to the subspecies, or how global warming specifically affects the subspecies. Therefore, we find that the petition does not contain substantial information suggesting that global climate change may be a factor that threatens the Thorne's hairstreak butterfly.

#### Finding

We evaluated each of the five listing factors individually, and because the threats to Thorne's hairstreak butterfly are not mutually exclusive, we also evaluated the collective effect of these threats. The petition focused primarily on three listing factors: Factor A (the Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range), Factor D (Inadequacy of Existing Regulatory Mechanisms), and Factor E (Other Natural or Manmade Factors Affecting the Continued Existence). More specifically, information in the petition suggests that fire poses the primary threat to Thorne's hairstreak butterfly habitat and populations because the subspecies' range occurs on lands susceptible to wildfires. However, it appears that frequency of fire in occupied habitat over the past century is not high enough on average to threaten the subspecies, and Tecate cypress populations on Otay Mountain are stable and potentially increasing overall. Within areas that have burned, the subspecies appears able to recolonize over time.

Also, we have determined that Federal regulations and activities (Wilderness Act, BLM fire suppression policy, Border Patrol enforcement activities, and MSCP) provide a significant level of protection for the Thorne's hairstreak butterfly and/or its habitat on Federal lands that include the subspecies entire known range. We will continue to work with the City and County of San Diego and the BLM to avoid and minimize impacts to the Thorne's hairstreak butterfly on their lands.



We have reviewed the petition and literature cited in the petition and evaluated that information in relation to information available to us. After this review and evaluation, we find the petition does not present substantial scientific information to indicate listing the Thorne's hairstreak butterfly may be warranted at this time. Although we will not be commencing a status review in response to this petition, we will continue to monitor potential threats and ongoing management actions that might be important with regard to the conservation of the Thorne's hairstreak butterfly across its range. We encourage interested parties to continue to gather data that will assist with the conservation of the subspecies.

#### References Cited

A complete list of all references cited herein is available, upon request, from our Carlsbad Fish and Wildlife Office (see **ADDRESSES** section above).

#### Author

The primary authors of this notice are staff from the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section above).

#### Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: August 1, 2006.

#### H. Dale Hall,

Director, Fish and Wildlife Service.

[FR Doc. E6-12743 Filed 8-7-06; 8:45 am]

BILLING CODE 4310-55-P

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

#### Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List the Sand Mountain Blue Butterfly as Threatened or Endangered with Critical Habitat

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

**ACTION:** Notice of 90-day petition finding and initiation of status review.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Sand Mountain blue butterfly (*Euphilotes pallelescens arenamontana*) as threatened or endangered under the Endangered Species Act of 1973, as amended (Act). We find that the petition presents substantial information

indicating that listing the Sand Mountain blue butterfly may be warranted. Therefore, with the publication of this notice, we are initiating a status review of the species, and we will issue a 12-month finding to determine if the petitioned action is warranted. To ensure that the status review of the Sand Mountain blue butterfly is comprehensive, we are soliciting scientific and commercial data regarding this species. A determination on critical habitat will be made if and when a listing action is initiated for this species.

**DATES:** The finding announced in this document was made August 8, 2006. To be considered in the 12-month finding for this petition, comments and information should be submitted to us by October 10, 2006.

**ADDRESSES:** Data, information, comments, or questions concerning this petition and our finding should be submitted to the Field Supervisor, Nevada Fish and Wildlife Office, U.S. Fish and Wildlife Service, 1340 Financial Boulevard, Suite 234, Reno, NV 89502 or via electronic mail at [sandmtblue@fws.gov](mailto:sandmtblue@fws.gov). The petition is available at [http://www.fws.gov/nevada/nv\\_species/sand\\_blue.html](http://www.fws.gov/nevada/nv_species/sand_blue.html). The petition, supporting data, and comments will be available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Robert D. Williams, Field Supervisor, Nevada Fish and Wildlife Office (see **ADDRESSES**) (telephone 775/861-6300; facsimile 775/861-6301).

#### SUPPLEMENTARY INFORMATION:

##### Public Information Solicited

When we make a finding that substantial information is presented to indicate that listing a species may be warranted, we are required to promptly commence a review of the status of the species. To ensure that the status review is complete and based on the best available scientific and commercial information, we are soliciting information on the Sand Mountain blue butterfly. We request any additional information, comments, and suggestions from the public, other concerned governmental agencies, Tribes, the scientific community, industry, or any other interested parties concerning the status of the Sand Mountain blue butterfly. We are seeking information regarding the species' historical and current status and distribution, its biology and ecology, ongoing conservation measures for the species and its habitat, and threats to the species and its habitat.

If we determine that listing the Sand Mountain blue butterfly is warranted, it is our intent to propose critical habitat to the maximum extent prudent and determinable at the time we would propose to list the species. Therefore, we also request data and information on what may constitute physical or biological features essential to the conservation of the species, where these features are currently found, whether any of these areas are in need of special management, and whether there are areas not containing these features, which of themselves, might be essential to the conservation of the species. Please provide specific comments as to what, if any, critical habitat should be proposed for designation, if the species is proposed for listing, and why that proposed habitat meets the requirements of the Act.

If you wish to comment or provide information, you may submit your comments and materials concerning this finding to the Field Supervisor (see **ADDRESSES**).

Our practice is to make comments and materials provided, including names and home addresses of respondents, available for public review during regular business hours. We will not consider anonymous comments and we will make all comments available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the address listed in the **ADDRESSES** section.

#### Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information to indicate that the petitioned action may be warranted. We base this finding on information provided in the petition and information otherwise available in our files at the time of petition review. To the maximum extent practicable, we make this finding within 90 days of our receipt of the petition, and publish our notice of this finding promptly in the **Federal Register**.

Substantial information, as defined by 50 CFR 424.14(b), is "that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted" (50 CFR 424.14(b)). If we find that substantial information was presented, we are required to promptly commence a review of the status of the species, if one has not already been