

assignments for all fixed stations in the band 1990–2110 MHz will be in accordance with the procedure established in paragraph (c) of this section. Coordination of all frequency assignments for all mobile (temporary fixed) stations in the band 1990–2110 MHz will be conducted in accordance with the procedure in paragraph (d) of this section.

(b) For each frequency coordinated under this part, the interference protection criteria in 47 CFR 101.105(a), (b), and (c) and the following frequency usage coordination procedures will apply:

(1) *General requirements.* Proposed frequency usage must be prior coordinated with existing licensees, permittees, and applicants in the area, and other applicants with previously filed applications, whose facilities could affect or be affected by the new proposal in terms of frequency interference on active channels, applied-for channels, or channels coordinated for future growth. Coordination must be completed prior to filing an application for regular authorization, or a major amendment to a pending application, or any major modification to a license. In coordinating frequency usage with stations in the fixed satellite service, applicants must also comply with the requirements of 47 CFR 101.21(f). In engineering a system or modification thereto, the applicant must, by appropriate studies and analyses, select sites, transmitters, antennas and frequencies that will avoid interference in excess of permissible levels to other users. All applicants and licensees must cooperate fully and make reasonable efforts to resolve technical problems and conflicts that may inhibit the most effective and efficient use of the radio spectrum; however, the party being coordinated with is not obligated to suggest changes or re-engineer a proposal in cases involving conflicts. Applicants should make every reasonable effort to avoid blocking the growth of systems as prior coordinated. The applicant must identify in the application all entities with which the technical proposal was coordinated. In the event that technical problems are not resolved, an explanation must be submitted with the application. Where technical problems are resolved by an agreement or operating arrangement between the parties that would require special procedures be taken to reduce the likelihood of interference in excess of permissible levels (such as the use of artificial site shielding) or would result in a reduction of quality or capacity of

either system, the details thereof may be contained in the application.

\* \* \* \* \*

(c) For each frequency coordinated under this part, the following frequency usage coordination procedures will apply:

\* \* \* \* \*

(d) For each frequency coordinated under this part, applicants are responsible for selecting the frequency assignments that are least likely to result in mutual interference with other licensees in the same area. Applicants may consult local frequency coordination committees, where they exist, for information on frequencies available in the area. In selecting frequencies, consideration should be given to the relative location of receive points, normal transmission paths, and the nature of the contemplated operation.

[FR Doc. 2010-7567 Filed 4-2-10; 8:45 am]

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS-R8-ES-2010-0016]  
[MO 92210-0-0008-B2]

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

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

**ACTION:** Notice of 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 Thorne's hairstreak butterfly (*Callophrys [Mitoura] grynea thornei* or *Callophrys [Mitoura] thornei*) as endangered under the Endangered Species Act of 1973, as amended and to designate critical habitat. We find the petition and information currently available in our records presents substantial scientific or commercial information indicating that listing Thorne's hairstreak butterfly may be warranted. Therefore, with the publication of this notice, we are initiating a status review to determine if the petitioned action is warranted. To ensure that the status review is comprehensive, we are requesting scientific and commercial data and other information regarding this species. Based on the status review, we will

issue a 12-month finding on the petition, which will address whether the petitioned action is warranted, as provided in section 4(b)(3)(B) of the Act.

**DATES:** To allow us adequate time to conduct this review, we request that we receive information on or before June 4, 2010. After this date, you must submit information directly to the Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT** section below). Please note that we may not be able to address or incorporate information that we receive after the above requested date.

**ADDRESSES:** You may submit comments by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Search for Docket No. FWS-R8-ES-2010-0016 and then follow the instructions for submitting comments.

- U.S. mail or hand-delivery: Public Comments Processing, Attn: FWS-R8-ES-2010-0016; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will post all information received on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the Information Requested section below for more details).

**FOR FURTHER INFORMATION CONTACT:** Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Suite 101, Carlsbad, CA 92011; 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.

#### SUPPLEMENTARY INFORMATION:

##### Information Requested

When we make a finding that a petition presents substantial information indicating that listing a species may be warranted, we are required to promptly review the status of the species (status review). For the status review to be complete and based on the best available scientific and commercial information, we request information on the Thorne's hairstreak butterfly from governmental agencies, Native American Tribes, the scientific community, industry, and any other interested parties. We seek information on:

- (1) The species' biology, range, and population trends, including:
  - (a) Habitat requirements for feeding, breeding, and sheltering;
  - (b) Genetics and taxonomy;

(c) Historical and current range including distribution patterns;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species and/or its habitat or both.

(2) The factors that are the basis for making a listing/delisting/downlisting determination for a species under section 4(a) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), which 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; or

(e) Other natural or manmade factors affecting its continued existence.

(3) The historical and current status and distribution of the Thorne's hairstreak butterfly, its biology and ecology, and ongoing conservation measures for the species and its habitat in the United States and Mexico.

(4) Information on management programs for the conservation of the Thorne's hairstreak butterfly.

Please include sufficient information with your submission (such as full references) to allow us to verify any scientific or commercial information you include.

If, after the status review, we determine that listing the Thorne's hairstreak butterfly is warranted, we intend to propose critical habitat (see definition in section 3(5)(A) of the Act), in accordance with section 4 of the Act, to the maximum extent prudent and determinable at the time we propose to list the species. Therefore, within the geographical range currently occupied by the Thorne's hairstreak butterfly, we request data and information on:

(1) What may constitute "physical or biological features essential to the conservation of the species,"

(2) Where these features are currently found, and

(3) Whether any of these features may require special management considerations or protection.

In addition, we request data and information on "specific areas outside the geographical area occupied by the species" that are "essential to the conservation of the species." Please provide specific comments and information as to what, if any, critical habitat you think we should propose for designation if the species is proposed for listing, and why such habitat meets the requirements of section 4 of the Act.

Submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or threatened species must be made "solely on the basis of the best scientific and commercial data available."

You may submit your information concerning this status review by one of the methods listed in the **ADDRESSES** section. If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If you submit a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this personal identifying information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Information and supporting documentation that we received and used in preparing this finding, will be available for you to review at <http://www.regulations.gov>, or you may make an appointment during normal business hours at the U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### Background

Section 4(b)(3)(A) of the Act requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition and publish our notice of the finding promptly in the **Federal Register**.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding 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 scientific or commercial information was presented, we are required to promptly review the status of the species, which is

subsequently summarized in our 12-month finding.

### Previous Federal Actions

On August 8, 2006, we published 90-day findings for both the Thorne's hairstreak and the Hermes copper butterfly in the **Federal Register**. The findings concluded that the petitions and information in our files did not present substantial scientific or commercial information indicating that listing Thorne's hairstreak (71 FR 44980) or Hermes copper butterflies (71 FR 44966) was warranted. (For a detailed history of Federal actions involving the Thorne's hairstreak butterfly prior to the 2006 90-day finding, please see the August 8, 2006 **Federal Register** Notice (71 FR 44980)). On March 17, 2009, CBD and David Hogan filed a complaint for declaratory and injunctive relief challenging the Service's decision not to list the Thorne's hairstreak butterfly and the Hermes copper butterfly as threatened or endangered under the Act. In a settlement agreement dated October 23, 2009 (Case No. 09-0533 S.D. Cal.), the Service agreed to submit new 90-day petition findings to the **Federal Register** by April 2, 2010, for the Thorne's hairstreak butterfly, and by May 13, 2010, for the Hermes copper butterfly. As a part of the settlement agreement, we agreed to evaluate the October 25, 2004 petition filed by David Hogan and CBD, supporting information submitted with the petition, and information available in the Service's files, including information that has become available since the publication of the negative 90-day findings on August 8, 2006. If the 90-day findings determine that listing may be warranted, we agreed to submit a 12-month finding to the **Federal Register** by March 4, 2011, for the Thorne's hairstreak butterfly, and by April 15, 2011, for the Hermes copper butterfly.

This notice constitutes our 90-day finding on the petition to list Thorne's hairstreak butterfly under section 4(b)(1)(A) of the Act. We will publish the 90-day finding on the petition to list Hermes copper butterfly in a future **Federal Register** document.

### Species Information

#### Taxonomy

Thorne's hairstreak butterfly was first described by John Brown (1983) based on a specimen collected by Fred Thorne in 1972. In this description, Brown placed the new species in the Lycaenidae family with the scientific name *Mitoura thornei*. The taxonomic ranking and placement of *Mitoura*

*thornei* was evaluated in 1999 by the Committee on Scientific Names of North American Butterflies and subsequently changed to a subspecies of *Callophrys gryneus* (Faulkner and Klein 2005, p. 31). As a result of this change, the species was renamed as *Callophrys gryneus thornei*. To validate this nomenclature change, the Service contracted Dr. Richard W. Van Bursick (2004) to review the Thorne's hairstreak butterfly's taxonomic status. This review concurred with the Committee on Scientific Names of North American Butterflies' (1999) decision and the Service currently recognizes Thorne's hairstreak butterfly as the subspecies *Callophrys gryneus thornei*. There has been significant discussion and disagreement by species experts on the taxonomic placement of this butterfly species (Faulkner and Klein 2005, p. 31), resulting in our receipt of new information from a species expert that disagrees with the previously cited taxonomic classification of Thorne's hairstreak butterfly (Klein 2009, pers. comm.). Due to the discrepancy over the taxonomic nomenclature of this species, we plan to re-evaluate Van Buskirk's (2004) review of taxonomic status for Thorne's hairstreak butterfly and will publish the results in the 12-month finding.

The host plant for Thorne's hairstreak butterfly larvae is *Hesperocypris forbesii* (Tecate cypress). This species had been known for some time in the literature as *Cupressus forbesii*. *Cupressus forbesii*, and the rest of the Western Hemisphere taxa of *Cupressus* have been segregated as *Hesperocypris* based on phylogenetic comparisons that support morphological evidence (Adams *et al.* 2009, pp. 160–185). *Hesperocypris forbesii* will be the name recognized for the species in the upcoming revision of the Jepson Manual of the Flora of California. This name will be used throughout this and all future documents referring to this species.

#### *Species Status and Distribution*

Thorne's hairstreak butterfly is endemic to San Diego County, and more specifically found exclusively in the Otay Mountain area (Faulkner and Klein 2005, p. 31). It is dependent on its larval host plant, *Hesperocypris forbesii*, to complete its lifecycle (Brown 1983), and is the only plant known on which Thorne's hairstreak butterflies lay their eggs. Adults lay their eggs on *H. forbesii* stems where the eggs mature, subsequently hatch, and larvae feed until pupation occurs in the duff and leaf litter at the base of the plant. Thorne's hairstreak butterflies have two hatching or flight periods per year

(termed bivoltine); the first flight period occurs in late March to early April and the second flight period occurs in September, which is thought to be dependent on the presence of summer rains (Faulkner and Klein 2005, p. 32). Adult Thorne's hairstreak butterflies are known to feed throughout the chaparral ecosystem on the nectar of *Eriogonum fasciculatum* (California buckwheat), *Ceanothus tomentosus* (Ramona lilac), and *Lotus scoparius* (deerweed) in the vicinity of stands of *H. forbesii* (Faulkner and Klein 2005, p. 33). We received new information as a result of a recent study indicating that *Asclepias fascicularis* (narrowleaf milkweed) is also used as an adult nectar source by Thorne's hairstreak butterfly throughout the species' range (Lucas 2009, pers. comm.). Confirmed observations of Thorne's hairstreak butterfly have been historically reported throughout the Otay Mountain area and have been repeatedly reported from O'Neill Canyon, Little Cedar Canyon, and Cedar Canyon, all of which are within the Otay Mountain wilderness (Betzler *et al.* 2003, pp. 13-14; Martin 2004, pers. comm.; Faulkner and Klein 2005, p. 32; Lucas 2009, unpublished data).

#### *Habitat*

*Hesperocypris forbesii*, a species generally associated with chaparral, is a serotinous- (not opening on maturity) or closed-coned conifer. Typically, its cones do not open and disperse seed until after fire, which nearly always results in the death of the parent tree (Zedler 1977, p. 456). Cone production for *H. forbesii* begins around 10 years of age (Zedler 1977, p. 456). While Zedler (1977, p. 456) asserted that maximum production per tree is not achieved until individuals reach approximately 50 years of age, Dunn (1986, p. 371) concluded that a maximum level of cones per square meter of the cypress stand is attained at about 35 to 40 years of age. *Hesperocypris forbesii*'s historical distribution on Otay Mountain was known to be approximately 7,500 acres (ac) (3,035 hectares (ha)) (CNDDDB 2003).

*Hesperocypris forbesii* persistence may be impacted by wildfires in the Otay Mountain area. Throughout the past 35 years, the Otay Mountain area has been subject to multiple fires of various levels of severity (Zedler 1977, p. 456; Keeley and Fotheringham 2003, pp. 242–243). Service GIS files indicate that the 2003 Otay/Mine fire footprint completely covered the known distribution of *H. forbesii* in the Otay Mountain area followed by the 2007 Harris fire that burned a substantial portion of this area again. Some

researchers also postulated that an increase in frequency of fires in the area may: (1) Result in changing vegetation structure or type conversion (Zedler 1977, p. 457; Zedler *et al.* 1983, p. 817; Keeley and Fotheringham 2003, pp. 243–244), and (2) lead to significant declines or possible extinction of *H. forbesii* in the Otay Mountain area because adult *H. forbesii* will not have the opportunity to reach an age where reproductive output is high enough to sustain the population (Zedler 1977, p. 457). While Dunn (1985, p. 5) concluded that the Otay population was not in "immediate danger," he noted that "an increasing threat of development and its effects on fire frequency" affected this area. Nonetheless, de Gouvenain and Ansary (2006, pp. 451–452) reported that the Otay Mountain, Tecate Peak, and Guatay populations of *H. forbesii* "appeared to be stable or potentially increasing" (i.e., the rate of population increase or  $\lambda > 1$ .) However, Markovchick-Nicholls (2007, p. 50) concluded that "[m]odel results utilizing available data and incorporating natural variation suggest that Tecate cypress [in the United States] will decline under most fire regime scenarios over the long-term, but that this trend may be difficult to detect in the short-term." Results from a recent study on the abundance of *H. forbesii* stands (individuals 3.3 ft (1 m) or higher) indicate there are approximately 454 ac (184 ha) located throughout the Otay Mountain area (Lucas 2009, unpublished data) and other burned areas contain small (less than 3.3 ft (1 m)) individuals that have sprouted since the 2003 and 2007 fires (Winchell, pers. obs. 2009). These surveys corroborated historical data (Betzler *et al.* 2003) that the oldest stands occur in Little Cedar Canyon and the largest stands occur in O'Neal Canyon (Lucas 2009, unpublished data); this survey information indicates that these stands have survived after repeated fire events. Additionally, Thorne's hairstreak butterfly has been observed perching on *H. forbesii* and nectaring on other chaparral plants during multiple survey periods between and following the 2003 and 2007 fires that occurred in the Otay Mountain area (Betzler *et al.* 2003, pp. 13-14; Martin 2004, pers. comm.; Faulkner and Klein 2005, p. 32; Lucas 2009, unpublished data).

For additional species information on Thorne's hairstreak butterfly, please refer to our previous 90-day finding, which published in the **Federal Register** on August 8, 2006 (71 FR 44980).

### Evaluation of Information for this Finding

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations in the Code of Federal Regulations (CFR) at 50 CFR 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. 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) of the Act: (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; or (E) other natural or manmade factors affecting its continued existence.

In making this 90-day finding, we evaluated whether information on threats to Thorne's hairstreak butterfly, as presented in the 2004 petition and other information available in our files, is substantial, thereby indicating that the petitioned action may be warranted. In the sections that follow, we summarize information included in the 2004 petition and evaluate any new information in our files, including information that has become available since the publication of the not-substantial 90-day finding on August 8, 2006. For a detailed evaluation of threats listed in the petition, please refer to the previous 90-day finding that published in the **Federal Register** on August 8, 2006 (71 FR 44980).

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

The petition, its appendices, and referenced documents discuss the following threats that are grouped under Factor A: wildfire, prescribed burns, grazing, vehicle access and recreation, and habitat fragmentation.

#### Wildfire

##### Information Provided in the Petition

The petitioners assert that Thorne's hairstreak butterfly is vulnerable to extinction from wildfire, which can cause direct mortality of individual butterflies (see discussion under Factor E) and indirect mortality resulting from a loss of the species' larval host plant, *Hesperocypris forbesii*. The petition further asserts that a single fire may threaten a significant portion of Thorne's hairstreak butterfly's range (such as the 2003 fire, as cited in Betzler *et al.* 2003, p. 13). Additionally,

increased fire frequency throughout the species' range may result in an increase in the abundance or an expansion of highly flammable, invasive, nonnative plant species, or vegetation type conversion and the replacement of chaparral ecosystems with nonnative plant species, thereby impacting the habitat on which Thorne's hairstreak butterfly depends (Keeley and Fotheringham 2003, pp. 243-245; Brooks *et al.* 2004, pp. 677-688).

##### Evaluation of Information Provided in the Petition and Available in Service Files

Distribution of Thorne's hairstreak butterfly is limited to the Otay Mountain area (part of the San Ysidro Mountain range in southern San Diego County, California) and is dependent on the presence of *Hesperocypris forbesii*, which is the butterfly's larval host plant (Brown 1983, pp. 245-254). The current distribution of *H. forbesii* in the Otay Mountain area encompasses 454 ac (183 ha) (Lucas 2009, unpublished data); however, historical records indicate that *H. forbesii* in the Otay Mountain area once covered approximately 7,500 ac (3,035 ha) (CNDDDB 2003). Of the current 454 ac (183 ha) of *H. forbesii*, approximately 34.7 ac (14 ha) are privately owned, 7.6 ac (3 ha) are owned by California Department of Fish and Game, and 5.5 ac (2.2 ha) are owned by the City of Chula Vista. The remaining approximately 406 ac (164 ha) of *H. forbesii* habitat in the Otay Mountain area occurs within the Bureau of Land Management (BLM) Otay Mountain Wilderness (see Factor D for more information on the Otay Mountain Wilderness). Confirmed observations of Thorne's hairstreak butterfly have been reported throughout the Otay Mountain area, but primarily occur from two canyons: Little Cedar Canyon and Cedar Canyon both within the Otay Mountain Wilderness (Betzler *et al.* 2003, pp. 13-14). Thorne's hairstreak butterfly is a narrow endemic species with historically declining habitat throughout the Otay Mountain area (Brown 1983, pp. 245-254; BLM 2009(b), p. 3-59; Congedo and Williams 2009, p. 1).

Information in our files indicates that wildfires in 2003 and 2007 burned throughout the *Hesperocypris forbesii* stands in the Otay Mountain area, which are known to be occupied by Thorne's hairstreak butterfly. The rapid reburning of this area (fire intervals less than 40 years) may have impacted mature *H. forbesii* by keeping them at a growth stage where reproductive output is not high enough to sustain the population of *H. forbesii* (de Gouvenain

and Ansary 2006, pp. 447-448; Markovchick-Nicholls 2007, p. 7); therefore, the availability of larval habitat for Thorne's hairstreak butterfly may be reduced by wildfires. It is also possible that replacement of other chaparral species (i.e., nectar sources) may have occurred under this fire regime, thereby removing nectar sources necessary to support Thorne's hairstreak butterfly; however, we have no information to support the petitioners' claim, and we will investigate this in our status review of the species. It is likely that wildfires will occur within the range of this species in the future. Therefore, we find the petition and information in our files presents substantial information indicating that listing Thorne's hairstreak butterfly may be warranted due to the threat of short-return-interval wildfire.

#### Prescribed Burns

##### Information Provided in the Petition

The petitioners state that while prescribed burns do not appear to be planned by BLM for the San Ysidro Mountain range, any that do occur in the future could compound the threat of excessive fire to Thorne's hairstreak butterflies and *Hesperocypris forbesii*.

##### Evaluation of Information Provided in the Petition and Available in Service Files

We did not find substantial information in the petition or in our files to indicate prescribed burns by BLM in the San Ysidro Mountain range may threaten Thorne's hairstreak butterfly. The species and its larval plant host, *Hesperocypris forbesii*, occur almost exclusively (approximately 90 percent) in the Otay Mountain Wilderness (see also Factor D). BLM's South Coast Resource Management Plan (South Coast RMP) (BLM 1994) generally allows prescribed burns; however, the Otay Mountain Wilderness has been managed under a policy of complete fire suppression (Woychok 2006, pers. comm.). In the Cedar Canyon area, the South Coast RMP states that BLM will not consider prescribed burns until 2020 to minimize the risk of jeopardizing *H. forbesii* regeneration after fires (BLM 1994, p. 21). Additionally, BLM is currently drafting a revised South Coast RMP that includes no prescribed burns and follows fire suppression practices until *H. forbesii* returns to its historical fire cycle of 50 years (BLM 2009(b), pp. 4-171-4-172). After 50 years without fire in a give *H. forbesii* stand, BLM would allow prescribed burns up to 500 ac per year. However, this new South Coast RMP is

in an early draft stage and is not currently being implemented by BLM. The other locations in the Otay Mountain area that contain *H. forbesii* stands (approximately 10 percent) receive protection under the City of Chula Vista Subarea Plan or the County of San Diego Subarea Plan under the Multiple Species Conservation Program (MSCP). These subarea plans require the conservation of natural vegetation communities (including *H. forbesii* stands), and states that “a fire management program would be needed for prevention of catastrophic fires and long-term viability” of both Thorne’s hairstreak butterfly and its larval host plant. Therefore, we find the petition and information in our files do not present substantial information indicating that listing Thorne’s hairstreak butterfly may be warranted due to the threat of prescribed burns. However, we will further investigate the potential threat of prescribed burns in our status review for this species.

#### Grazing

##### Information Provided in the Petition

The petition states that grazing may harm Thorne’s hairstreak butterfly and its larval host plant, *Hesperocypris forbesii*, if grazing within the currently vacant Otay Grazing Allotment (approximately 5,522 ac (2,235 ha) (BLM 2009(b), p. 3-116) located on BLM lands on Otay Mountain) occurs in the future. The threat of grazing as it relates to direct mortality of individual butterflies is discussed under Factor E. The petitioners assert that the allotment is being considered for renewed grazing in the future and that cattle grazing will cause harm to the habitat (by trampling the larval host and through soil modification) and increase the occurrence of nonnative plants, thus leading to an increase in fire frequency, and resulting in loss of Thorne’s hairstreak butterfly habitat.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The petitioners state that the Otay Grazing Allotment is vacant. Information in our files indicates the allotment is leased but has been in a state of non-use since 2000 (BLM 2009(b), p. 3-120). The Otay Grazing Allotment is completely contained within the Otay Mountain Wilderness and encompasses suitable adult Thorne’s hairstreak butterfly habitat (i.e., the host plant and other chaparral plants, which includes nectar sources for adults) (Lucas 2009, pers. comm.), including approximately 16 percent

(75.2 ac (30.4 ha)) of the *Hesperocypris forbesii* in the Otay Mountain area. The available adult and larval habitat for Thorne’s hairstreak butterfly is currently not impacted by grazing and a large majority of the adult and larval habitat would remain unaffected if grazing resumed in the Otay Grazing Allotment in the future. Neither the petition nor other information in our files presents substantial information indicating that listing Thorne’s hairstreak butterfly may be warranted due to the threat of grazing. However, we will further investigate the potential threat of grazing in our status review for this species.

#### Vehicle Access and Recreation

##### Information Provided in the Petition

The petitioners assert that vehicle access and recreation in the San Ysidro Mountain range will likely lead to increased fire frequency. Additionally, they state that certain roads were grandfathered into the Otay Mountain Wilderness designation and generally allow unrestricted public access to Thorne’s hairstreak butterfly habitat.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The Otay Mountain Wilderness Area allows public access; however, recreational use is considered light with no more than 1,000 visitor use days per year (BLM 2009(b), p. 3-103). Visitors are encouraged to be responsible and follow the BLM program called “Leave No Trace,” which minimizes impacts from human uses. Motorized vehicle use is not permitted in the designated Wilderness Area with the exception of two pre-existing roads, and off-highway vehicles are completely excluded (BLM 2009(b), pp. 2-124-2-125). The majority of traffic through the area is concentrated on a few small roads used by border patrol agents. Border patrol vehicles may increase the risk of fire in this area, although fires are expected to be immediately reported (BLM 2009(b), p. 2-151).

Although light recreational use and minimal traffic associated with border patrol agents occurs in the Otay Mountain Wilderness, the information available to us does not indicate that recreation and vehicle use is a threat to Thorne’s hairstreak butterfly. These two pre-existing roads within the Otay Mountain Wilderness extend outside of BLM property onto private lands; however, they are small, one-lane, remote, dirt roads that only pass near stands of *Hesperocypris forbesii* and do not appear to be heavily used. We do

not have information to support the claim that vehicle access would increase the fire frequency in the area. Additionally, we do not have information in our files and the petitioners did not present information to indicate that vehicle access and recreation are a threat to the species in the Otay Mountain Wilderness or in privately-owned areas. Therefore, we find the petition and information in our files do not present substantial information indicating that listing Thorne’s hairstreak butterfly may be warranted due to the threat of vehicle access and recreation. However, we will further investigate the potential threat of recreation and vehicle access in our status review for this species.

#### Habitat Fragmentation

##### Information Provided in the Petition

The petitioners claim that both habitat fragmentation and habitat degradation pose a substantial threat to Thorne’s hairstreak butterfly and its habitat through both habitat modification and fragmentation of butterfly populations. The petitioners assert that the habitat has been degraded and modified such that Thorne’s hairstreak butterfly is unable to locate suitable habitat, which will likely impact the species throughout its geographical range. The impacts associated with Thorne’s hairstreak butterfly population fragmentation are assessed under Factor E (see below).

##### Evaluation of Information Provided in the Petition and Available in Service Files

We agree that habitat for Thorne’s hairstreak butterfly appears to have been fragmented or degraded by wildfire. The current distribution of *Hesperocypris forbesii* in the Otay Mountain area encompasses 454 ac (183 ha) (Lucas 2009, unpublished data) and is distributed in patches across the landscape; however, historical records indicate that *H. forbesii* in the Otay Mountain area once covered approximately 7,500 ac (3,035 ha). Information in our files indicates that *H. forbesii* and other chaparral species are currently recovering after recent fires (Congedo and Williams 2009, p. 1; Lucas 2009, pers. comm.); however, we do not have information in our files that indicates whether the habitat has been impacted in a manner that would inhibit recovery to historical levels. We note that the amount of larval habitat has increased from 2004 to 2009 (Lucas 2009, unpublished data).

Zedler *et al.* (1983, pp. 809-818) describes vegetation type conversion

(also considered a type of habitat fragmentation) within the Otay Mountain area; however, information in our files describes recovering *H. forbesii* habitat and availability of various suitable nectar sources after the fires in 2003 and 2007, including one source that was previously unknown (Lucas 2009, pers. comm.).

Additionally, the petition cites roads as a mechanism of habitat fragmentation; however, roads are unlikely to cause habitat fragmentation to an extent that would impact Thorne's hairstreak butterfly population because the roads are small, one-lane, remote, dirt roads with little traffic. The Otay Mountain Wilderness, managed by the BLM, has only two main roads and a few other small roads that allow motorized vehicles (off-highway vehicle use is excluded throughout the Otay Mountain Wilderness); therefore, habitat fragmentation resulting from roads would be very minimal.

In summary, we evaluated the petition and information in our files and find that substantial information exists to indicate that listing Thorne's hairstreak butterfly may be warranted due to the present or threatened destruction, modification, or curtailment of the habitat or range of the species due to the threat of wildfires and the possibility that habitat fragmentation may be occurring as a result of wildfires. We will further investigate the potential threat of habitat fragmentation in our status review for this species.

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

##### Information Provided in the Petition

The petition does not present any information with respect to Factor B.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The information in our files does not indicate any threat to Thorne's hairstreak butterfly due to overutilization for commercial, recreational, scientific, or education purposes. Therefore, we find that the petition and information in our files do not provide substantial information indicating listing Thorne's hairstreak butterfly may be warranted due to the overutilization for commercial, recreational, scientific, or education purposes. However, we will further investigate the potential threat of overutilization for commercial, recreational, scientific, or education

purposes in our status review for this species.

#### *C. Disease or Predation*

##### *Disease*

##### Information Provided in the Petition

The petition does not present any information concerning threats from disease to Thorne's hairstreak butterfly.

##### Evaluation of Information Provided in the Petition and Available in Service Files

We have no information in our files to indicate any threat from disease to Thorne's hairstreak butterfly.

##### *Predation*

##### Information Provided in the Petition

The petitioners state that species experts (Klein (date not provided), pers. comm.) suspect that birds, predatory insects, parasitic insects, and spiders prey upon Thorne's hairstreak butterfly. Additionally, the petitioners assert that the harmful effects of otherwise normal predation or parasitism might be exacerbated by population reduction from excessive fires.

##### Evaluation of Information Provided in the Petition and Available in Service Files

Faulkner and Klein (2005, p. 34) state that birds may consume Thorne's hairstreak larvae; however, we are not aware of any data to support a theory of bird predation as a significant threat to Thorne's hairstreak butterflies. Brachonid wasps, which are parasitic insects, have been observed near the host plant, but there has been no documentation of parasitism to Thorne's hairstreak butterflies (Faulkner and Klein 2005, p. 34). The petitioners do not provide information to support their claim that predation or parasitism may exacerbate population reduction resulting from fires, nor do we have any information in our files to support this claim.

Neither the petition nor our files present substantial information that disease or predation pose significant threats to Thorne's hairstreak butterfly. Therefore, we find that the petition and information in our files do not provide substantial information indicating that listing Thorne's hairstreak butterfly may be warranted due to disease or predation. However, we will further investigate the potential threat of disease and predation in our status review for this species.

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

The petition cites three regulatory mechanisms that may provide some, but not adequate, Thorne's hairstreak butterfly conservation, including:

- (1) The Wilderness Act,
- (2) BLM management activities, and
- (3) The County of San Diego Subarea Plan under the Multiple Species Conservation Program (MSCP).

##### Information Provided in the Petition

The petitioners make the following statements concerning Thorne's hairstreak butterflies and the Wilderness Act, BLM management activities, and the County of San Diego Subarea Plan:

- (1) The Wilderness Act does not provide significant protection for the species;
- (2) BLM does not consider the species as "sensitive", so the species is not afforded sensitive species' protections within the agency's management plan (i.e., the South Coast RMP);
- (3) BLM is not actively implementing conservation measures for the species;
- (4) BLM is not pro-actively managing the private lands they have acquired; and
- (5) Despite Thorne's hairstreak butterfly being recognized as a "covered species" under the County of San Diego Subarea Plan, that Plan does not provide sufficient protection for the species.

##### Evaluation of Information Provided in the Petition and Available in Service Files

Thorne's hairstreak butterfly larval habitat on Otay Mountain occurs almost entirely (92 percent) on publicly owned property (BLM, City of Chula Vista or California Department of Fish and Game). The following regulatory mechanisms and management actions apply to these public lands and protect Thorne's hairstreak butterfly and its habitat:

- (1) The Otay Mountain Wilderness Act (1999) (Pub. L. 106-145) and BLM management policies provide protection for the vast majority of Thorne's hairstreak butterfly habitat. The Otay Mountain Wilderness Act provides that the Otay Mountain designated wilderness area (i.e., Otay Mountain Wilderness; 18,500 ac (7,486 ha)) will be managed in accordance with the provisions of the Wilderness Act of 1964 (16 U.S.C. 1131 *et seq.*). The Wilderness Act of 1964, in turn, strictly limits use of wilderness areas, imposing restrictions on vehicle use, new developments, chainsaws, mountain bikes, leasing, and mining in order to protect the natural habitats of the areas,

maintain species diversity, and enhance biological values. Finally, any lands acquired within the Otay Mountain Wilderness boundaries become part of the designated wilderness area and they are managed in accordance with all provisions of the Wilderness Act and applicable laws.

(2) Sensitive species, as defined by BLM, are those species that are not already designated as Federal- or State-listed species and occur on Bureau-administered lands for which BLM has the capability to significantly affect their conservation status through management. This BLM policy is intended to ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for these species to become listed as endangered or threatened under the Act (BLM 2009(b), p. 3-58). Currently, Thorne's hairstreak butterfly is not considered a sensitive species by BLM; however, BLM is currently collaborating with the Service to revise the South Coast RMP. In this draft revised plan, Thorne's hairstreak butterfly and *Hesperocypris forbesii* are identified as sensitive species (BLM 2009(b), p. 3-59), and the draft revised plan specifically states the management of these species and their habitats are important because of their close association and the importance of fire cycles to their continued existence. Moreover, one of BLM's primary objectives in the draft revised plan is improved fire management and collaboration with local communities and agencies to prevent wildfires. Additionally, BLM intends to write a more specific plan for the Otay Mountain Wilderness that identifies management measures and actions that would benefit *H. forbesii* (Schlachter 2006, pers. comm.; BLM 2009(a), p. 1). BLM's future management plans appear to provide a significant amount of conservation and management measures, but they are currently not being implemented throughout the Otay Mountain Wilderness Area. As a result of wildfires on Otay Mountain there have likely been increases in nonnative species which increase fuels available for future fires. Furthermore, although the current fire suppression policy dictates all fires should be suppressed once ignited, this has not prevented recent wildfires from burning through large areas of Thorne's hairstreak butterfly habitat. Therefore, it appears current regulations for Thorne's hairstreak butterfly and its habitat are not adequate to control the threat of increased wildfire frequency.

(3) The Memorandum of Understanding (MOU) on cooperation in habitat conservation planning and

management issued by BLM in 1994 in conjunction with the development of the County of San Diego Subarea Plan (BLM 1994, pp. 1-8) applies to the Otay Mountain Wilderness because it falls entirely within the boundary of this subarea plan. The MOU details BLM's commitment to manage its lands in a manner that compliments the County of San Diego MSCP Subarea Plan, which in turn, requires protection of Thorne's hairstreak butterfly's larval host plant and local chaparral species used as nectar sources. Additionally, the MOU states that private lands acquired by BLM will be evaluated for inclusion within the designated wilderness area and if the lands do not meet wilderness qualifications they would be included in the region's habitat conservation system (BLM 1994, p. 3). Any existing conservation plans will be considered when managing these newly acquired lands (BLM 1994, p. 3; BLM 2009(b), pp. 2-74, N-1-2).

The draft revised South Coast RMP (see discussion in (2) above), which covers the Otay Mountain Wilderness, does provide conservation measures for both Thorne's hairstreak butterfly and *Hesperocypris forbesii*. The plan specifically includes a goal of restoring fire frequency to 50 years through fire prevention or suppression and prescribed burns; once an area has not burned for 50 years the plan allows for annual prescribed burning of up to 500 acres (202.3 ha) in the Otay Mountain Wilderness (BLM 2009(b), pp. 4-171-4-172). BLM's future management plans appear to provide conservation and management measures to assist with various threats to Thorne's hairstreak butterfly and its habitat, but they are currently not being implemented throughout the Otay Mountain Wilderness Area; therefore, it appears that current regulations for Thorne's hairstreak butterfly and its habitat are not adequate to control potential threats to this species, including the threat of increased wildfire frequency.

(4) Approximately 48 ac (19 ha) of *Hesperocypris forbesii* habitat fall under the MSCP, which strives for fire management and prevention to restore the previous 25-year fire cycle and states that "a fire management program would be needed for prevention of catastrophic fires and long-term viability of its host plant." This shorter frequency of fire may have an impact on adult *H. forbesii* because they will not have the opportunity to reach an age (40 or more years) where reproductive output is high enough to sustain the population (de Gouvenain and Ansary 2006, pp. 447-448; Markovchick-Nicholls 2007, p. 7). Therefore, the fire

management and prevention policies of the MSCP which strive to restore a 25 year fire cycle, may be inadequate to control the threat of wildfire to this species.

There appear to be a variety of future management actions that BLM could implement which may provide protection to Thorne's hairstreak butterfly and its habitat; however, current existing regulatory mechanisms by BLM and MSCP do not appear to be adequate to provide protection for Thorne's hairstreak butterfly or its habitat from the threat of increased wildfire frequency. Therefore, after our evaluation of the petition and information in our files, we find that substantial information exists to indicate that listing Thorne's hairstreak butterfly may be warranted due to the inadequacy of existing regulatory mechanisms.

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

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

#### *Wildfire*

##### Information Provided in the Petition

The petitioners state that Thorne's hairstreak butterfly cannot escape fire. They stated that: (1) Pupae and larvae are likely killed when fire burns *Hesperocypris forbesii* stands and nearby chaparral; (2) adults are likely killed by fire due to their habit of remaining close to their host plant; and (3) adults are likely 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.

##### Evaluation of Information Provided in the Petition and Available in Service Files

We agree that the majority of Thorne's hairstreak butterfly individuals are likely killed when a fire passes through an occupied area. Moreover, researchers questioned the persistence of Thorne's hairstreak butterfly after the 2003 Otay/Mine fire because the fire footprint appeared to cover all areas known to be occupied by the species (IBAERT 2003, pp. 219-220; Betzler *et al.* 2003, p. 13). Although, adult Thorne's hairstreak butterflies were documented from four

unburned *Hesperocypris forbesii* stands after the 2003 fire on the southwest slope of the Otay Mountain (Martin 2004, pers. comm.), surveyors in 2004 visiting the burned areas occupied prior to the 2003 fire, found evidence of new host plant growth but no adult Thorne's hairstreak butterflies (Faulkner and Klein 2005, pp. 32). This is likely due to the lack of available larval host plants and nectar sources on which Thorne's hairstreak butterfly relies one year after the fire.

Researchers have postulated that Thorne's hairstreak butterflies require mature host plants for reproduction (Faulkner and Klein 2005, p. 32); however, Thorne's hairstreak butterflies were observed in 2009 perching and feeding within re-growth areas burned in the 2003 and 2007 fires (Lucas 2009, pers. comm.). These observations in recently burned (younger) stands of *H. forbesii* support the theory that Thorne's hairstreak butterflies do not strictly require mature or adult trees as host plants.

Even with some post-fire adult observations, it is likely the majority of Thorne's hairstreak butterflies killed when habitat burns and populations are further adversely impacted by frequently recurring fires. Therefore, we find that the petition and information in our files do provide substantial information to indicate that listing Thorne's hairstreak butterfly may be warranted due to direct mortality from wildfire.

#### Grazing

##### Information Provided in the Petition

The petitioners assert that grazing practices may lead to trampling of eggs and larvae of Thorne's hairstreak butterfly.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The Otay Grazing Allotment, which is the only place in the current range of the species that is grazed, is completely contained within the Otay Mountain Wilderness and has not been grazed since 2000 (Doran 2006, pers. comm.; BLM 2009(b), p. 3-120). Information in our files indicate that approximately 84 percent (378 ac (153 ha)) of the *Hesperocypris forbesii* within the Otay Mountain area are outside of the Otay Grazing Allotment. The majority of the available habitat for Thorne's hairstreak butterfly is currently not affected by grazing (i.e., vegetation conditions are not favorable for grazing), and would not be affected by grazing within the Otay Grazing Allotment should grazing

in the allotment resume in the future. Therefore, we find that the petition and information in our files do not provide substantial information to indicate that listing Thorne's hairstreak butterfly may be warranted due to mortality from grazing. However, we will further investigate in our status review for this species the potential threat of trampling mortality from grazing and the potential impact that grazing could have if it occurs in the future.

#### Population Fragmentation

##### Information Provided in the Petition

The petitioners state that fragmentation of Thorne's hairstreak butterfly populations through fire, habitat type conversion, and roads poses a significant threat to the species. The petitioners claim habitat fragmentation reduces the area of Thorne's hairstreak butterfly habitat and thereby threatens the species by isolating populations from one another. The petitioners also claim that because Thorne's hairstreak butterflies are habitat specialists, they have a higher risk of extinction due to population fragmentation than a habitat generalist. Additionally, the petitioners claim that habitat fragmentation expands edge habitat, resulting in further stress on fragmented or small populations, leading to isolation effects on the population.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The petition describes the Thorne's hairstreak butterfly population as fragmented as a result of habitat fragmentation. *Hesperocypris forbesii* and associated chaparral habitat has been disturbed by wildfire; however, this habitat is recovering and Thorne's hairstreak butterflies continue to occur throughout the burned area (Martin 2004, pers. comm.; Faulkner and Klein 2005, pp. 32-33; Congedo and Williams 2009, p. 1; Lucas 2009, pers. comm.). Even though movement dynamics have not been completely determined, information in our files indicates Thorne's hairstreak butterfly is capable of re-colonizing and utilizing immature *H. forbesii* stands in recently burned areas (Martin 2004, pers. comm.; Faulkner and Klein 2005, p. 32; Lucas 2009, pers. comm.). New information indicating that *Asclepias fascicularis*, a previously unknown nectar source (Lucas 2009, pers. comm.), is used by Thorne's hairstreak butterfly indicate that the butterfly's habitat requirements may not be as specialized as previously thought.

The petition states that individuals have been observed nectaring 0.25 mile (0.40 kilometer) away from their host plant, which suggests that individual butterflies are capable of moving at least this far to find suitable habitats or mates. However, information in our files indicates that the *H. forbesii* stands are patchily distributed and separated by distances greater than 0.25 mile (0.40 kilometer), which may contribute to population fragmentation. As a result of this information, we find that the petition and information in our files provides substantial information indicating listing Thorne's hairstreak butterfly may be warranted due to population fragmentation. We intend to further investigate and attempt to distinguish between habitat fragmentation and population fragmentation in our status review of the species.

#### Vulnerability of Small and Isolated Populations

##### Information Provided in the Petition

The petitioners assert that endemic taxa such as Thorne's hairstreak butterfly are considered more prone to extinction than widespread species due to their restricted geographical range. According to the petition, the common factors that increase the vulnerability of small and isolated populations to extinction are demographic fluctuations, environmental stochasticity (random events), and reduced genetic diversity.

##### Evaluation of Information Provided in the Petition and Available in Service Files

The fact that a species is characterized by populations that are few in number, small in size, or isolated does not necessarily mean the species is threatened. Typically, it is the combination of small size and number of populations and isolation of small populations in conjunction with other threats (such as the present or threatened destruction, modification, or curtailment of the species' habitat or range) that may pose a threat to a species. Thorne's hairstreak butterfly has always been endemic the Otay Mountains (Brown 1983; Beztler *et al.* 2003; Faulkner and Klein 2005). If occupied habitat is temporarily fragmented by fire, a fluctuation in Thorne's hairstreak butterfly numbers could make small populations more vulnerable to stochastic events. Small populations and the isolation of populations from one another could also subject Thorne's hairstreak butterfly to genetic drift and restrict gene flow that may decrease genetic variability over

time and could adversely affect the species' viability (Allee 1931, pp. 12-37; Stephens *et al.* 1999, pp. 185-190; Dennis 2002, pp. 389-401). Surveys conducted in 2009 (Lucas 2009, unpublished data) conclude that Thorne's hairstreak butterflies are still present in the *H. forbesii* stands on Otay Mountain. We have no quantitative survey information on population numbers, but historical larval habitat has been reduced from 7,500 ac (3,035 ha) to approximately 454 ac (see "Habitat" section above for more information). Since Thorne's hairstreak butterfly is dependent on *H. forbesii* to complete its lifecycle, available larval habitat is a proxy for population size. With this large reduction in available larval habitat we believe that the species' population distribution have been significantly reduced relative to historical levels resulting in an increased risk of extinction due to stochastic events such as wildfire. Therefore, we find that the petition and information in our files do provide substantial information indicating that listing Thorne's hairstreak butterfly may be warranted due to restricted geographic range.

#### *Global Climate Change*

##### Information Provided in the Petition

The petitioners assert that butterflies (in general) are threatened by global climate change and are sensitive to small changes in microclimates, such as fluctuations in moisture, temperature, or sunlight. According to the petition, studies of Edith's checkerspot butterfly (*Euphydryas editha*) have verified speculation that whole ecosystems may move northward or shift in elevation as the Earth's climate warms (Parmesan and Galbraith 2004, p. 9).

##### Evaluation of Information Provided in the Petition and Available in Service Files

We recognize recent evaluations by Parmesan and Galbraith (2004, pp. 1-2, 29-33) that indicate whole ecosystems may be shifting northward and upward in elevation, or are otherwise being altered by differing climate tolerance among species within a community. Parmesan's review (2006, pp. 637, 648-649, 653) indicates range-restricted mountaintop species (such as Thorne's hairstreak butterfly) typically experience range retractions. Additionally, we recognize that climate change is likely to cause changes in the arrangement of occupied habitat patches. Current climate change predictions for terrestrial areas in the Northern Hemisphere indicate warmer

air temperatures, more intense precipitation events, and increased summer continental drying (Field *et al.* 1999, pp. 1-3; Hayhoe *et al.* 2004, p. 12422; Cayan *et al.* 2005, p. 6; Intergovernmental Panel on Climate Change 2007, p. 11). However, predictions of climatic conditions for smaller subregions such as California remain uncertain. It is unknown at this time if climate change in California will result in a warmer trend with localized drying, higher precipitation events, or other effects. Because the information currently available on the effects of global climate change and microhabitat changes, such as increasing temperatures or moisture, does not make sufficiently precise estimates of the magnitude of the effects, we are unable to determine what impacts to Thorne's hairstreak butterfly may occur. Given this uncertainty, we find that the petition and information in our files do not provide substantial information to indicate that listing Thorne's hairstreak butterfly may be warranted due to global climate change. We will further investigate this potential threat to Thorne's hairstreak butterfly in our status review of the species.

In summary, we find that the petition and information in our files do provide substantial information indicating that listing Thorne's hairstreak butterfly may be warranted due to other natural or manmade factors affecting the species' continued existence. Specifically, we find that the effects of wildfire on individuals, population fragmentation, and restricted geographic range may pose significant threats to the species.

#### **Finding**

On the basis of our determination under section 4(b)(3)(A) of the Act, we have determined that the petition presents substantial scientific or commercial information indicating that listing Thorne's hairstreak butterfly may be warranted. This finding is based on information provided under Factor A (present or threatened destruction, modification, or curtailment of the species' habitat or range), Factor D (the inadequacy of existing regulatory mechanisms) and Factor E (other natural or manmade factors affecting the species' continued existence). Because we have found that the petition presents substantial information indicating that listing Thorne's hairstreak butterfly may be warranted, we are initiating a status review to determine whether listing Thorne's hairstreak butterfly under the Act is warranted.

The "substantial information" standard for a 90-day finding differs from the Act's "best scientific and

commercial data" standard that applies to a status review to determine whether a petitioned action is warranted. A 90-day finding does not constitute a status review under the Act. In a 12-month finding, we will determine whether a petitioned action is warranted after we have completed a thorough status review of the species, which is conducted following a substantial 90-day finding. Because the Act's standards for 90-day and 12-month findings are different, as described above, a substantial 90-day finding does not mean that the 12-month finding will result in a warranted finding.

The petitioners request that we designate critical habitat for this species. If we determine in our 12-month finding that listing Thorne's hairstreak butterfly is warranted, we will address the designation of critical habitat at the time of the proposed rulemaking. The proposed rulemaking may be published concurrently with the 12-month finding or at a later date.

#### **References Cited**

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

#### **Author**

The primary authors of this notice are staff members of the Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

#### **Authority**

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

Dated: March 26, 2010.

**Jeffrey L. Underwood,**

*Acting Director, Fish and Wildlife Service.*

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## **DEPARTMENT OF COMMERCE**

### **National Oceanic and Atmospheric Administration**

#### **50 CFR Part 665**

#### **RIN 0648-XU60**

### **Fisheries in the Western Pacific; Hawaii Bottomfish and Seamount Groundfish Fisheries; Fishery Closure**

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