



Frequently Asked Questions About Critical Habitat for Thread-Leaved Brodiaea

Q. What is *Brodiaea filifolia* (Thread-leaved brodiaea)?

A member of the lily family, thread-leaved brodiaea is a purple-flowered perennial that is associated with clay soils and other soils with clay lenses or clay substrates. The plant is found in portions of Los Angeles, Orange, San Bernardino, Riverside and San Diego counties, California, at elevations between 100 feet and 2,500 feet above sea level.

Thread-leaved brodiaea grows 8 to 16 inches tall and generally flowers in May and June. This plant is self-incompatible - meaning a particular thread-leaved brodiaea plant can only set seed if it is pollinated by another plant that is genetically distinct.

Q. What is critical habitat?

Critical habitat is a term in the Endangered Species Act (ESA). It identifies geographic areas that contain features essential for the conservation of a threatened or endangered species and may require special management considerations or protection.

The Service must first identify, to the extent known, the physical or biological features essential to the conservation of the species. These needs may include one or more of the following:



Brodiaea filifolia Photo Credit: K.Clark/USFWS

- ◆ space for individual and population growth, and for normal behavior;
- ◆ food, water, light, air, minerals or other nutritional or physiological needs;
- ◆ cover or shelter;
- ◆ sites for breeding, reproduction, and rearing of offspring; and
- ◆ habitat that is protected from disturbance or is representative of the historical geographic and ecological distribution of a species.

The Service then determines which areas occupied by the species contain these features, whether these may need special management or protection, and then which of them are important enough to the species to warrant being designated as critical habitat. In the event the Service determines that occupied habitat by itself is not enough to conserve the species, the Service may then

examine suitable habitat unoccupied by the species to determine if it is essential to the conservation of the species and so should be included in the designation.

Q. What are primary constituent elements essential to the conservation of thread-leaved brodiaea?

The primary constituent elements for thread-leaved brodiaea are those habitat components essential for the primary biological needs of the plant and its seeds, including space for individual and population growth; food, water, air, light, minerals, or other nutritional or physiological requirements; and suitable habitat for pollinators.

Primary constituent elements for thread-leaved brodiaea include appropriate soils and associated vegetation at suitable elevations to provide for seed dispersal, germination, and seed deposition, and which support pollinators to facilitate gene flow within and among populations.

For a more detailed description of the primary constituent elements, please refer to the final rule to designate critical habitat for thread-leaved brodiaea (70 FR 73820).

Q. How many areas were proposed for critical habitat designation?

In the December 8, 2004 proposed rule (69 FR 71284), the Service identified approximately 9,403 acres of land in portions of Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties that were eligible for critical habitat designation. However, some of these areas were excluded from proposed designation because they were already covered by an approved Habitat Conservation Plan, including the Western Riverside Multiple Species Habitat Conservation Plan, the City of Carlsbad's approved Habitat Management Plan, and the Villages of La Costa HCP.

Lands on Marine Corps Base, Camp Pendleton were excluded under section 4(b)(2) of the ESA based on potential impacts to national security if these areas were proposed for critical habitat.

The Service proposed to designate approximately 4,690 acres of land as critical habitat for thread-leaved brodiaea.

Q. Why was so much land excluded from the final critical habitat designation?

There are several reasons why a significant amount of the proposed critical habitat areas was removed or excluded from critical habitat.

As part of the process of developing this final designation, the Service reviewed all comments received from peer reviewers (independent experts the Service solicited to review the proposed rule) and the public; re-evaluation the criteria used to identify critical habitat; and refined the mapping process.

Areas were removed from consideration because the occurrence of thread-leaved brodiaea on a particular site did not meet the significance criteria; the occurrence of thread-leaved brodiaea on a site could not be verified; the area is already receiving special management considerations; or, in some instances, mapping refinements removed developed portions of proposed units.

Some lands were excluded from the final designation under section 4(b)(2) of the ESA because they are now covered by an approved HCP; more specifically, lands in proposed unit 7a (Fox-Miller) was not initially covered by the City of Carlsbad's Habitat Management Plan (HMP). In the time between the publication of the proposed and final rules, this particular area is now covered by the HMP and will conserve 99 percent of the thread-leaved brodiaea in a designated reserve area on the property.

In Orange County, proposed units 4b (Casper's Wilderness Park), 4c (Canada Gobernadura/Chiquita Ridgeline) and 4g (Christianitos Canyon) are being excluded under 4(b)(2) of the ESA because they are now addressed in a formal Settlement Agreement regarding Rancho Mission Viejo's Ranch Plan, a comprehensive land use and open space plan. Significant occurrences of thread-leaved brodiaea in these areas will be conserved.

In the City of Oceanside in San Diego County, two significant occurrences identified in the proposed rule as units 6b (Mesa Drive) and 6d (Taylor/Darwin) are being excluded under the City's pending subarea plan under the Northwestern San Diego County Multiple Habitat Conservation Program. The City has made significant progress towards completion of their subarea plan and is working cooperatively with the Service to address thread-leaved brodiaea conservation in these two units.

Q. What about the other areas that the Service previously identified as containing features essential to the conservation of the plant, but excluded from the original proposed designation?

In the October 2004 proposed rule, the Service identified 9,403 acres of eligible habitat, but excluded approximately 4,713 acres of eligible habitat from the proposed designation because the areas were within the boundaries of the approved Western Riverside County Multiple Species Habitat Conservation Plan, the Villages of La Costa HCP, and the City of Carlsbad's HMP. In this final rule, the Service re-affirmed the exclusion of these areas from critical habitat.

Lands on Marine Corps Base, Camp Pendleton were excluded from proposed critical habitat under section 4(b)(2) of the ESA based on potential impacts to national security if those areas were included as proposed critical habitat. The Service reviewed Camp Pendleton's Integrated Natural Resource Management Plan (INRMP) and information provided during the two comment periods. Based a review of the INRMP and other information, the Secretary determined that the INRMP provides a benefit to thread-leaved brodiaea; therefore, these lands are now exempt from critical habitat pursuant to section 4(a)(3) of the ESA.

What areas are included in the final designation?

Approximately 597 acres of land in Los Angeles and San Diego counties are being designated as critical habitat for thread-leaved brodiaea. The areas designated as critical habitat are identified in four subunits representing three geographic areas as follows:

Unit 1: Los Angeles County

This unit encompasses about 294 acres divided into two subunits – one subunit includes 96 acres of private land in the City of Glendora that is owned and managed by the Glendora Community Conservancy. The other subunit is 198 acres or mostly private land in the City of San Dimas, with about 20 acres occurring on land managed by the U.S. Forest Service’s Angeles National Forest.

Unit 5: Northern San Diego County

This subunit 5b (Devil Canyon) includes about 249 acres of federally managed land that supports a significant occurrence of thread-leaved brodiaea at the upper boundary of the species’ known elevation range.

Unit 8: San Marcos

There is one subunit included in this area. Subunit 8d includes 54 acres of land in the City of San Marcos that supports a significant occurrence of thread-leaved brodiaea.

Q. Does the designation of critical habitat create preserves?

No. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve or preserve. It does not allow government or public access to private lands and will not result in closure of the area to all access or use.

Q. What happens if my private property is proposed as critical habitat for thread-leaved brodiaea?

The designation of critical habitat does not affect private landowners unless they are undertaking projects that require Federal authorization, permits, or funding. If a project involves a Federal nexus then the agency issuing the permit, authorization or funding would consult with the Service if it is determined that the project may affect designated critical habitat.

Q. Did the Service prepare an economic analysis of the designation of critical habitat?

A draft economic analysis was made available for public comment on October 06, 2005. The analysis found that if final critical habitat were designated on all habitat areas with features essential to the conservation of the plant (9,403 acres), total costs would be expected to range between \$24.5 and \$43.6 million over the next 20 years. Costs associated with the 4,690 acres of land proposed for designation were estimated to be \$12.2 million \$16.9 million over a 20-year period following the final designation.

Over the next 20 years, costs associated with the four areas included in the final designation are estimated to be \$1.0 to \$3.3 million using undiscounted dollars.



Prepared by Carlsbad Fish and Wildlife Office