FRANKLIN’S BUMBLE BEE (*Bombus franklini*)
June 2022

Species Information

Franklin’s bumble bee is thought to have the most limited distribution of all known North American bumble bee species. This species is believed to be restricted to the Klamath Mountain region of southern Oregon and Northern California, which includes portions of Siskiyou and Trinity Counties in California. Elevations where it has been observed range from 540 ft. in the northern part of its range, to over 7,800 ft. in the southern part of its range. Despite continued intensive search efforts in these areas through 2019, there have been no confirmed observations of the Franklin’s bumble bee since 2006.

The Franklin’s bumble bee has not been studied but are thought to, like other similar bee species, require a diverse supply of flowers that bloom throughout the species life cycle, from spring to autumn. These resources would typically be found in open (non-forested) meadows in proximity to seeps and other wet meadow environments.

Figure 1. Franklin’s Bumble Bee. Photo credit: Peter Schroeder

Figure 2. Franklin’s Bumble Bee range, from ECOS USFWS species profile
Colonies of Franklin’s bumble bee have an annual cycle, initiated each spring when solitary queens emerge from hibernation and seek suitable nest sites. Colonies contain workers along with the founding queen. The flight season of Franklin’s bumble bee is from mid-May to the end of September; a few individuals have been encountered in October. At the end of the colony cycle, all the workers and the males die along with the founding queen; only the inseminated hibernating females are left to carry on the genetic lineage into the following year.

**Surveys**

Historical observations and occurrence data for Franklin’s bumble bee prior to 1998 include opportunistic observations, student collections, and museum specimens, as well as the collections and notes of interested parties, natural resource managers, and university staff. A more intensive and targeted search effort for the species began in 1998, in areas thought to have the highest likelihood of Franklin’s bumble bee presence. There was initial success at finding a higher abundance of the species than ever previously reported; in one year (1998), 98 Franklin’s bumble bees were observed (mostly from two sites). However, in subsequent years, searchers found fewer and fewer Franklin’s bumble bees, and none have been found since the last sighting of a single individual in Oregon in 2006. Despite continued intensive search efforts in these areas through 2019, there have been no confirmed observations of the Franklin’s bumble bee since 2006.

![Figure 3. Franklin’s Bumble Bee detections in California as found in the California Natural Diversity Database. Last observation date was in 1998.](image-url)
Threats
Pathogens in combination with pesticides, as well as pathogens in combination with the effects of small population size, may have hastened and amplified the decline of the Franklin’s bumble bee to a greater degree than any one of the three threats would cause on its own.


Status
On September 23, 2021 the Franklin’s bumblebee was federally listed as Endangered under the Endangered Species Act. The ESA prohibits “take” of an endangered species without a federal permit and its requirement.

Considerations for timber harvest planning
For projects within the range of the Franklin’s bumble bee, the species should be addressed within the timber harvest document. Given that the Franklin’s bumble bee needs a diverse supply of flowers throughout the colony’s life cycle, open meadows and other wet areas are considered the bees most important habitat type. Since meadows and wet areas are afforded protection measures under the FPRs, it is not expected that habitat modification will result. Discuss all standard, and any additional protection measures that would minimize negative effects to meadows and wet areas. Timber harvests that promote open areas mixed in forested areas, or restore meadows from encroaching conifers, have the potential to provide a benefit to the species by increasing the abundance of flowering plants. Include discussion on any potential benefits to the species that may result from the proposed project.

Pesticide use is listed as one of the main threats to the Franklin’s bumble bee. Consideration should be given to potential effects of pesticide use. If pesticide use is proposed, discuss any resource protection measures that will be used to mitigate any negative impacts.

Reference

Useful Information
Bumble Bees of the Western United States, USFS 2012
https://ecos.fws.gov/ecp/species/7022
Xerces Society Species Account