

News Release



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Endangered Species Act Protection for Franklin's Bumble Bee May Be Warranted, U.S. Fish and Wildlife Service Finds *More Information Sought on its Status and Threats*

Listing the Franklin's bumble bee under the Endangered Species Act may be warranted, the U.S. Fish and Wildlife Service announced today. The agency is seeking more information about its status and threats before making a final determination on whether or not to include it on the Endangered Species List.

With the smallest distribution of any bumble bee in North America and perhaps the world, the Franklin's bumble bee has been found in an area of about 190 miles north-south and 70 miles east-west in Douglas, Jackson, and Josephine counties in southwestern Oregon and in Siskiyou and Trinity counties in northern California. Some of its known range is on federal lands managed by the Bureau of Land Management and U.S. Forest Service and it also inhabits agricultural and urban areas.

"We have long considered the Franklin's bumble bee a species of concern, and surveys over a dozen years seem to reveal a significant decline," said Paul Henson, State Supervisor of the U.S. Fish and Wildlife Service's Oregon Fish and Wildlife Office. "We have some information on potential causes, but we don't know specifically what is happening with this particular species. Our goal at this point is to invite more scientific and commercial information, especially from people in the agricultural community who have imported bumble bees for pollinating crops and from academic researchers who may know about unrecorded Franklin's bumble bee sightings."

The last documented sighting of the Franklin's bumble bee was in 2006. For the last 12 years, the Fish and Wildlife Service has provided financial and technical support for Franklin's bumble bee research. About \$30,000 has been provided to Dr. Robbin Thorp, Professor Emeritus, Department of Entomology, University of California at Davis, for annual surveys and research.

The number of Dr. Thorp's sightings declined from a high of 94 individuals in 1998 to 20 in 1999, and continued on a downward trend until 20 were found again in 2002, and then downward again to zero until 2006, when a single worker was observed.

Also in 2006, a separate BLM survey of 16 sites that were believed to provide optimal habitat for Franklin's bumble bee was undertaken, but no bees were found. While some postulate that the species may now be extinct, conclusive evidence is not available.

The Fish and Wildlife Service was petitioned to list the Franklin's bumble bee under the Endangered Species Act as endangered and to designate critical habitat by Dr. Thorp and the Xerces Society for Invertebrate Conservation last year. The petitioners hypothesize that disease introduced through the use of commercially produced bumble bees for agricultural pollination is the primary reason for the decline. The Fish and Wildlife Service provided nearly \$35,000 for research at a University of Illinois laboratory to study the possibility that the species' decline is related to introduced pathogens that could have been spread through transport and use of commercial bees. Scientists identified a common strain affecting bumble bees in Europe and the U.S. and are trying to determine whether it was imported or is naturally occurring.

The petition cited a wide range of potential threats, including habitat alteration, the inadequacy of regulatory protections, pesticides, population dynamics, climate change, and competition from other bees. Much of what is known is general and the degree to which these are threats to Franklin's bumble bees in particular is unknown at this time.

Bumble bees pollinate crops grown in greenhouses and open fields, including tomatoes, peppers, cucumbers, eggplant, and different berries. They also are used commercially for pollinating flowering plants. In the wild, they play an important role in the food chain; for example, some of the plants they pollinate produce berries that serve as a food source for other wildlife such as birds and bears.

When the Fish and Wildlife Service is petitioned to list a species, there are several steps in the process. Generally, the first is to determine whether or not emergency listing is warranted, and if it is not, the next step is to issue a "90-Day Finding" on whether the petition presents substantial information that listing may be warranted. If it is considered potentially warranted (like today's finding), the agency moves on to conduct a "status review" of the species to gather more information. The next step is a "12-Month Finding" which determines either that the petitioned action is warranted, that it is not warranted, or that it is warranted but precluded by other pending listing actions that take priority, and the species becomes a "candidate" for listing in the future. The status of each candidate species is re-evaluated each year until either a listing proposal is developed or a "not warranted" finding is made based on new information.

The Fish and Wildlife Service is including graphics on its website, www.fws.gov/oregonfwo, to help with Franklin's bumble bee identification. Some distinguishing characteristics of the Franklin's bumble bee include:

- Extended yellow coloration on their middle, between the head and abdomen, which extends well beyond the wing bases and forms an inverted U-shape around the central patch of black;
- A lack of yellow on the abdomen;
- A predominantly black face with yellow on the top of the head; and
- White coloration at the tip of the abdomen.

Other bumble bees with similar coloration in the range of the Franklin's bumble bee have the yellow coloration extending back to the wing bases or only slightly beyond, and usually have one or more bands of yellow either on the middle or slightly behind the middle of the abdomen. Females of most species have yellow pubescence—fine hair-like structures on the face—in contrast to black on the Franklin's bumble bee. Females of the western bumble bee (*Bombus occidentalis*) and *B. californicus* that have black pubescence on the face also have the same coloration on the vertex—the top or crown of the head—in contrast to the yellow pubescence on the vertex in the Franklin's bumble bee. Females of *B. californicus* have a long face in contrast to the round face of the Franklin's bumble bee and the western bumble bee.

Information on the Franklin's bumble bee may be provided to: Paul Henson, State Supervisor, U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office, 2600 SE 98th Ave., Suite 100, Portland, OR 97266; (503)–

231 –6179; fax (503) 231–6195. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

The Endangered Species Act provides a critical safety net for America’s native fish, wildlife and plants. The U.S. Fish and Wildlife Service is working to actively engage conservation partners and the public in the search for improved and innovative ways to conserve and recover imperiled species. To learn more about the Endangered Species Program, visit <http://www.fws.gov/angered/>.

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