



Washington Department of  
**FISH & WILDLIFE**

# Monitoring for at-risk bumble bees

A WDFW wildlife diversity grant project

Insect pollinators play an essential role in sustaining ecosystems, propagating most flowering plants and supporting the wildlife that depend on them. Unfortunately, pollinator communities are at risk, with one-quarter of North American bumble bees facing some degree of extinction risk.

The objective of the Pacific Northwest Bumble Bee Atlas is to engage volunteers in documenting bumble bees and their habitat associations so WDFW and partners can learn how to conserve them. Data from this project will inform conservation efforts to support bumble bee populations statewide.



Credit: Xerces Society

**Project name:** Implementing long term monitoring for bumble bee SGCN at sentinel sites in Washington State

**Primary species benefitting:** Bumble bees

**Grant total:** \$48,005

**Grantee & associated entity:** Sarina Jepsen, The Xerces Society for Invertebrate Conservation

**Webpage:** [bumblebeeatlas.org/pages/pnw](https://bumblebeeatlas.org/pages/pnw)

In 2018, the Xerces Society worked with the Washington Department of Fish and Wildlife (WDFW) and several other partners to launch the Pacific Northwest Bumble Bee Atlas (PNWBBA) — an effort to conduct a statewide inventory of Washington's bumble bees. The PNWBBA engaged community scientists to document bumble bees and their habitat associations statewide. The data has informed habitat management, restoration, and conservation planning. The goal now is to track bumble bees at key locations to better understand population trends and the underlying forces shaping bumble bee communities through a more targeted long-term monitoring project, while continuing to engage community scientists in the process.



Credit: Xerces Society



Credit: (left and right) Xerces Society

## Project goals and outcomes

The primary goal of this project is to better understand population trends of bumble bee Species of Greatest Conservation Need (SGCN) in Washington, enabling WDFW and Xerces Society to monitor changes over time, and ideally, be able to practice adaptive management to support bumble bee populations. Intended outcomes are to:

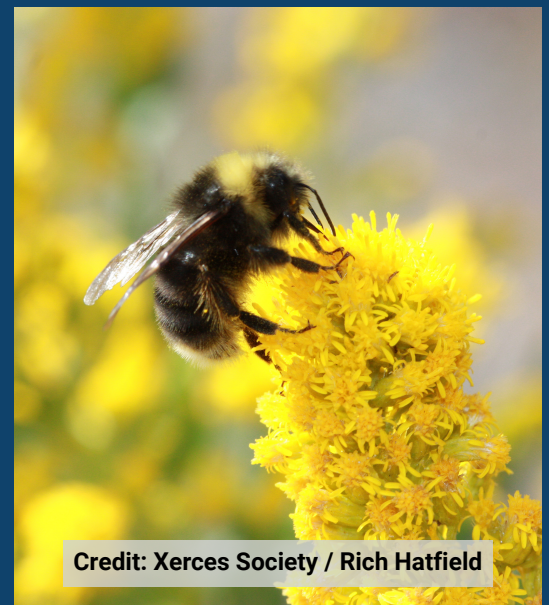
- Develop a test framework for monitoring Washington’s SGCN bumble bees
- Recruit, train, and steward volunteers
- Process, manage, and analyze data submitted by volunteers from the 2024 field season
- Review and revise the framework for monitoring Washington’s SGCN bumble bees in 2025

Ultimately, SGCN bumble bees and their habitat will be monitored at 25 sites, which will improve our understanding of species-specific detection and allows WDFW and Xerces Society to develop a more robust monitoring framework to track the status of Washington SGCN bumble bees.

## Informing effective monitoring and land management for bumble bees

With one-quarter of North American bumble bees facing some degree of extinction risk, it is essential that we take steps to protect these species and the habitats they depend on. Three bumble bee species – the western bumble bee (*Bombus occidentalis*), Morrison bumble bee (*B. morrisoni*), and Suckley cuckoo bumble bee (*B. suckleyi*) – have been identified as SGCN in Washington.

Despite their ecological importance and conservation status, data and information are lacking to help agencies effectively monitor and manage land for bumble bees. While information collected on Washington’s SGCN bumble bees through the PNWBBA has already begun to inform habitat stewardship and restoration, we need to continue to better understand the mechanisms driving population trends so that we can more effectively implement evidence-based conservation measures to benefit SGCN bumble bees.



Credit: Xerces Society / Rich Hatfield

This project was funded by WDFW through the [Wildlife Diversity Grant Program](#).

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