

Bumblebee Sightings in Canada: A Citizen Science Project 🐝.....

Purpose of the Data

Bumble Bee Watch is a collaborative project dedicated to tracking and conserving North America’s bumble bee populations. It collects photo based observations from citizen scientists to study the distribution and abundance of bumble bees. The data helps support targeted conservation efforts, especially for at-risk species, and assesses the impact of environmental changes on their populations (Hatfield, Kerr, & Larrivière, 2024). However, this dataset only includes information from 2010 and has been specifically filtered for Canada.

Total Bumble Observed

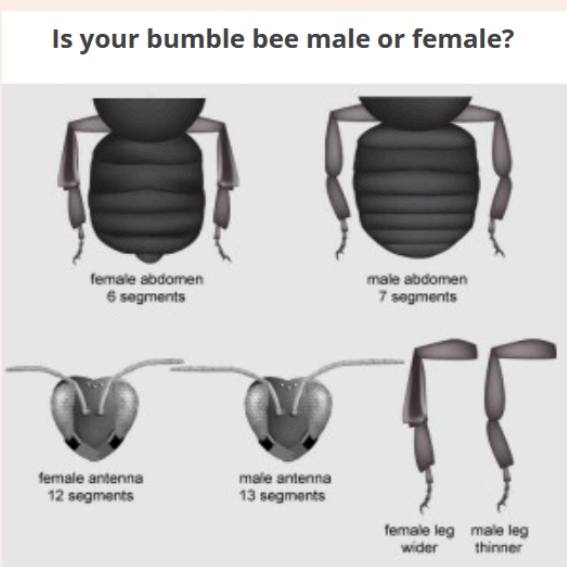
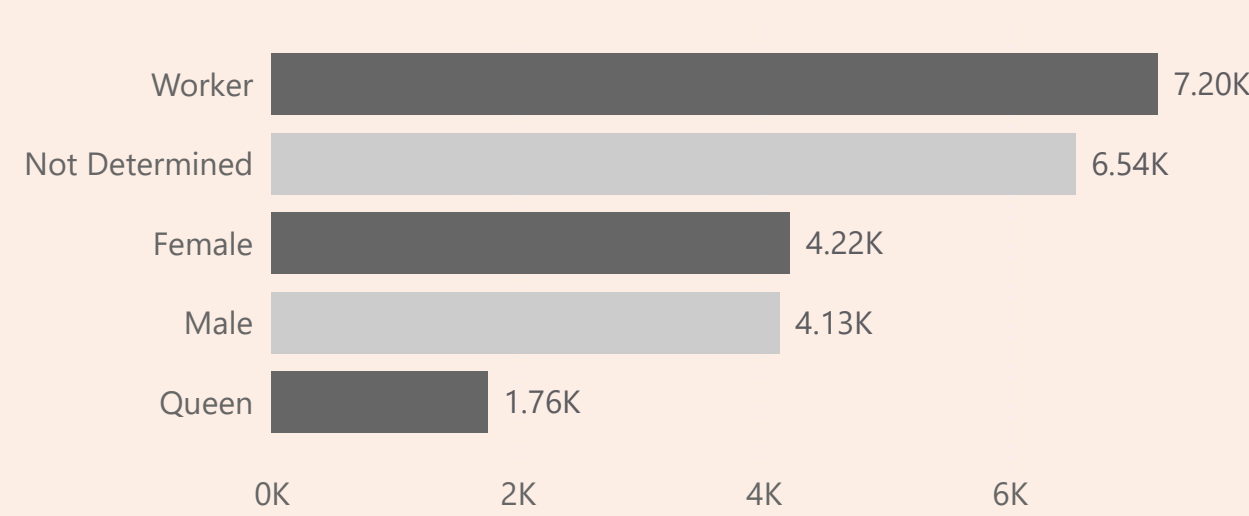
Year 2010 - 24

23.84K

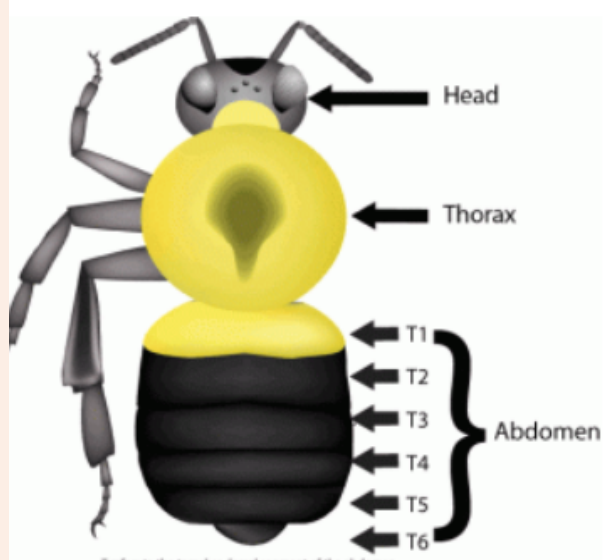
How to Identify a Bumble Bee

To identify a bumble bee, the "**Basic Bumble Bee Anatomy**" image highlights three main body sections: head, thorax, and abdomen. The segmented abdomen helps distinguish males from females. According to "**Is Your Bumble Bee Male or Female?**" image, workers and queens have six abdominal segments, shorter antennae (12 segments), and wider legs, while males have seven abdominal segments, longer antennae (13 segments), and thinner legs. The chart below shows that **female bees are most commonly observed, totalling 13,176**. Unidentified bees form a significant portion, while males were recorded 4,100 times. The data primarily focuses on females, as males are harder to identify from photographs (Xerces Society and Partners, 2025).

Tracking Bumble Bee Sex: What the Data Shows



Basic bumble bee anatomy:



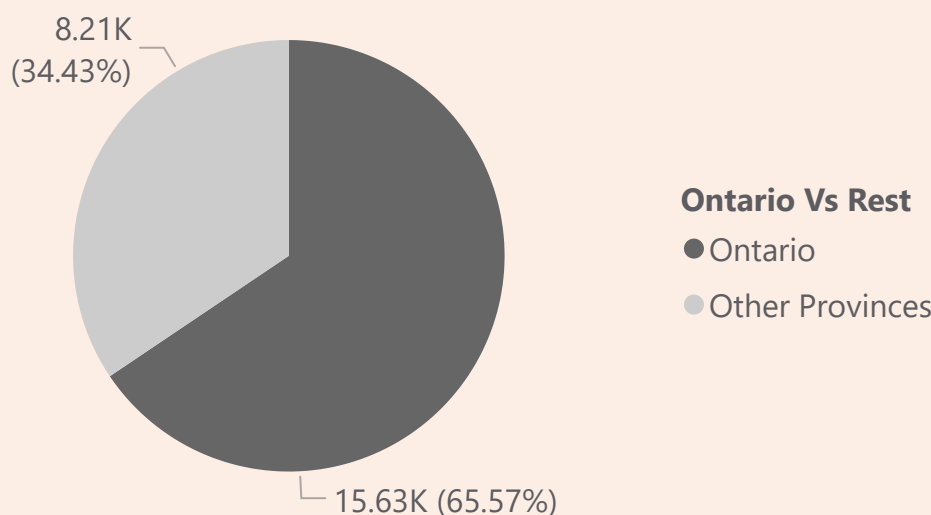
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Where Bumble Bees Are Observed and Recorded

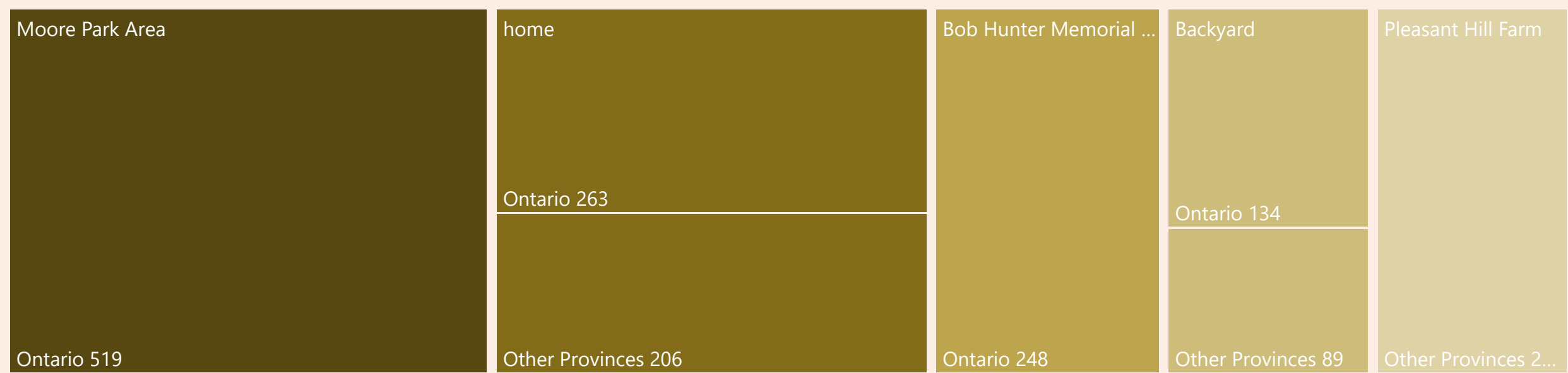
The Bumble Bee Sightings chart shows **Ontario account for 65.57%**, making it the primary region in Canada. In contrast, **other provinces make up 34.43% of the total sightings**. This data highlights Ontario as a key location for bumblebee activity.

The tree map highlights the top five locations for bumble bee sightings. **Moore Park Area in Ontario had the most sightings at 519**. **Homes and backyards were also common observation sites**, with homes reporting 263 sightings in Ontario and 206 in other provinces, while backyards recorded 134 and 89 sightings, respectively. **Bob Hunter Memorial Park in Ontario** had 248 sightings, and **Pleasant Hill Farm** in other provinces recorded 212. The data indicates that bumble bees are found in urban, suburban, and natural environments, with citizen scientists documenting sightings in both public and private spaces.

Bumble Bee Sightings in Ontario vs. Other Provinces



Top 5 Bumble Bee Sightings by Location and Province

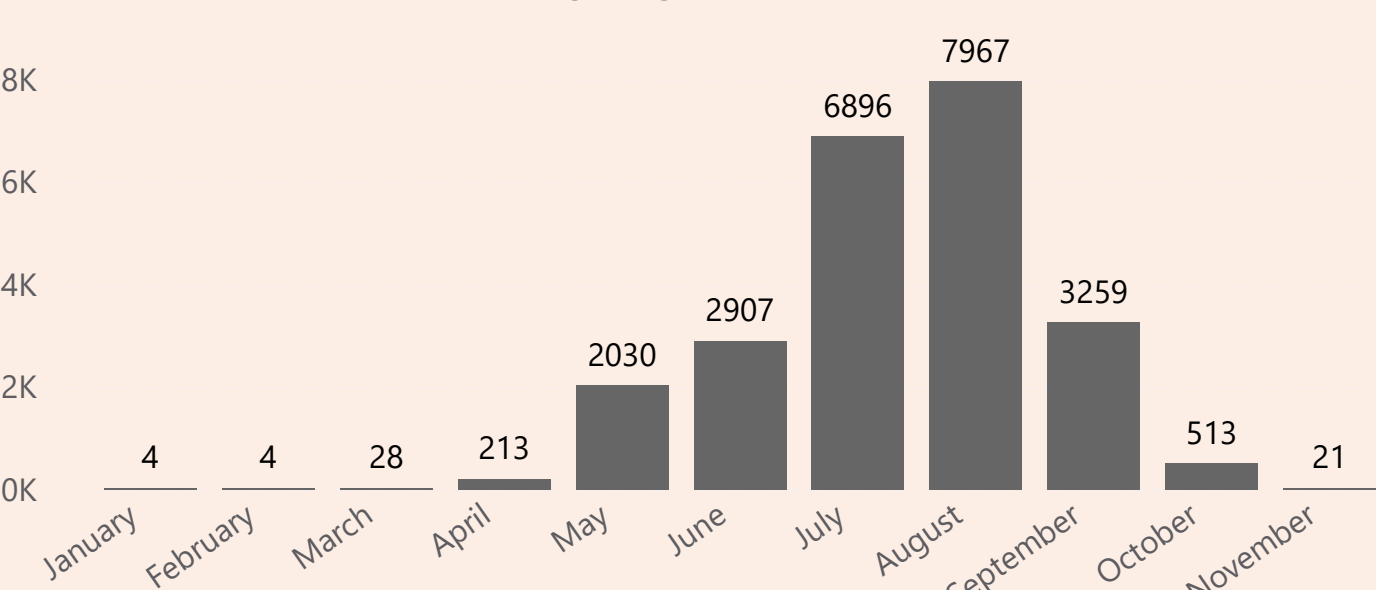


The Best Time of Year to Observe Bumble Bees

Bumble bee activity varies throughout the year, with peak observation times occurring during the warmer months. Based on citizen science data, **May through September** are the best months to observe bumble bees, with sightings peaking in **July and August**. During these months, bumble bees are highly active, foraging for nectar and pollinating flowers.

If you're looking to spot bumble bees, consider exploring gardens, parks, and natural areas during these peak months. Observations drop significantly outside of this window, especially in the colder months, when bumble bees either die off (for workers) or enter hibernation (for queens).

Seasonal Trends in Bumble Bee Sightings



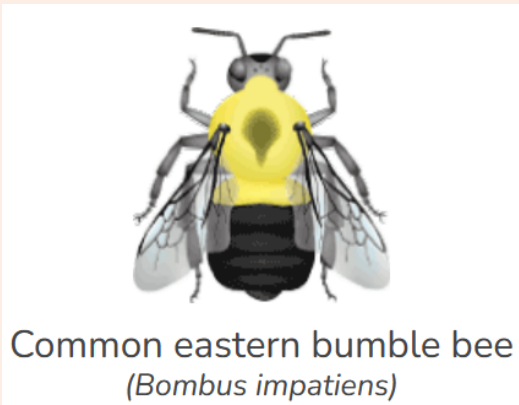
Canada’s Most Famous Bumble Bee Species

Canada is home to a diverse range of bumble bee species, with some being more commonly observed than others. The **Common Eastern Bumble Bee** is the most frequently reported species, dominating sightings in multiple provinces, including Ontario, Quebec, and Prince Edward Island. Other widely observed species include the **Tri-colored Bumble Bee**, **Yellow Head Bumble Bee**, and **Two-spotted Bumble Bee**, each being more prevalent in specific regions.

The presence of these species varies across provinces, reflecting differences in habitat, climate, and ecological conditions. Ontario has the highest number of recorded occurrences, with over 7,700 sightings of the **Common Eastern Bumble Bee**, followed by Quebec. Less common species, such as the **Cryptic Bumble Bee** in the Northwest Territories and the **Nevada Bumble Bee** in Yukon, highlight the regional diversity of Canada’s bumble bee populations.

Top Bumble Bee Species Observed Across Canada Per Province

Province	Top Vernacular Name	Sightings
Ontario	Common eastern bumble bee	7715
Quebec	Common eastern bumble bee	893
Alberta	Tri-colored bumble bee	333
New Brunswick	Common eastern bumble bee	246
Nova Scotia	Common eastern bumble bee	243
British Columbia	Yellow head bumble bee	188
Manitoba	Two-spotted bumble bee	135
Prince Edward Island	Common eastern bumble bee	125
Saskatchewan	Tri-colored bumble bee	85
Newfoundland and Labrador	Yellow-banded bumble bee	44
Northwest Territories	Cryptic bumble bee	3
Yukon	Nevada bumble bee	1



Common eastern bumble bee
(*Bombus impatiens*)



Tri-colored bumble bee
(*Bombus ternarius*)

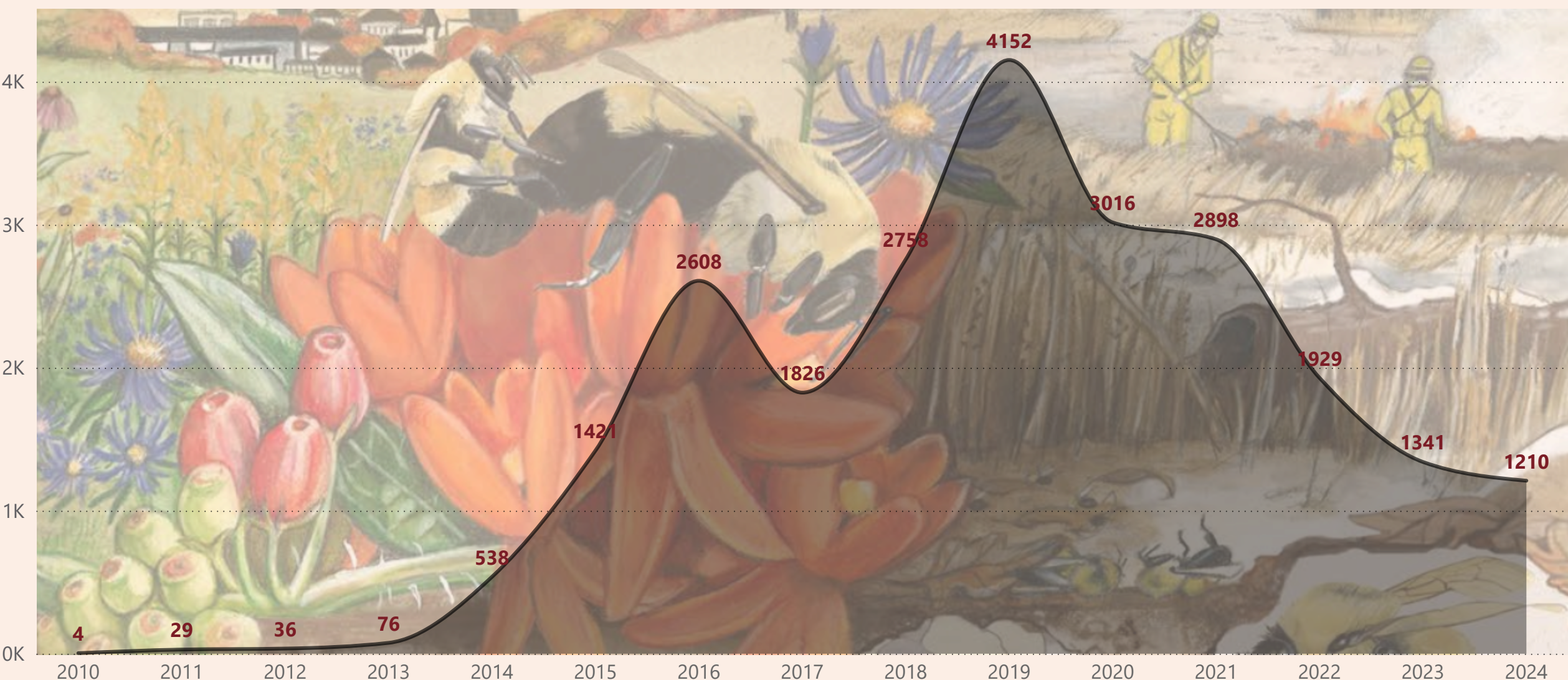


Two-spotted bumble bee
(*Bombus bimaculatus*)

Bumble Bee Conservation: Challenges and Solutions

Bumble bees play a vital role in wildlands, farms, and urban ecosystems. As **key pollinators of crops and wildflowers, they are essential for maintaining biodiversity and a healthy environment**. However, their populations are declining at a concerning pace (Xerces Society and Partners, 2025). As seen in the bee observance chart, bumble bee sightings in Canada peaked around 2019, with over 4,000 occurrences recorded. Since then, the number of sightings has steadily declined, dropping significantly from 2020 onwards. This may correlate with a potential reduction in bumble bee populations or changes in reporting activity. **Three things we can do to help the Bumble Bee thrive: Flowers on which to forage, a place to build their nest, and a pesticide free environment**. Click the **Protect Bees** button to learn more.

Bumble Bee Sightings Through the Years



Protect Bees

Sources

Sources

Data Source:

Xerces Society - Bumble Bee Watch

<https://www.gbif.org/dataset/f1a4ce9a-97cd-4d35-bf5e-561f2f1c6d91>

Image Source:

Bumble Bee Anatomy:

<https://www.bumblebeewatch.org/anatomy/>

Bumble Bee Types:

<https://www.bumblebeewatch.org/field-guide/>

Text writings:

Xerces Society - Bumble Bee Watch

<https://www.gbif.org/dataset/f1a4ce9a-97cd-4d35-bf5e-561f2f1c6d91>

Bumble Bee Anatomy

<https://www.bumblebeewatch.org/anatomy/>

Bumble Bee Field Guide

<https://www.bumblebeewatch.org/field-guide/>

Conserve Bumble Bees

<https://www.bumblebeewatch.org/>