

GYPSY CUCKOO BUMBLE BEE

Bombus bohemicus

Physical characteristics



The gypsy cuckoo bumble bee is no ordinary bumble bee. It doesn't have a worker caste because the queens parasitize the colonies of other bumble bee species.

The bee's face and the top of its head are covered in black hairs. Its thorax is mostly black on the sides and yellow between the wings, and the tip of its abdomen is strongly curved.



Gypsy cuckoo bumble bee markings

© Elaine Evans



Gypsy cuckoo bumble bee

© Rickard Holgersson

Diet



Adults feed primarily on the nectar of plant species found in woodlands and blueberry fields, while larvae feed on the pollen and nectar reserves of the parasitized colony. Egg-laying females will devour the eggs laid by the queen of a host colony of rusty-patched bumble bees to reduce competition with their own offspring.

Habitat



The gypsy cuckoo bumble bee can be found in various environments ranging from open meadows and mixed farmland to urban areas. It emerges in spring, shortly after its host species' queens, and parasitizes the host nests, which are often located in abandoned rodent burrows or rotting tree stumps. Females overwinter in the ground, in mulch, or in other decomposing plant matter.



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Periods of vulnerability



- Mated females emerge in the spring and seek out the nest of a host species in which to lay their eggs.
- Between late summer and fall, the newly hatched females and males leave the colony to mate.
- Once mated, females disperse to seek out overwintering sites, while males die at the onset of cold weather.
- Eggs hatch after around 4 days.
- The bees reach adulthood after approximately 5 weeks, depending on temperature and food availability.

Threats



- The disappearance of the gypsy cuckoo bumble bee is closely tied to the decline of its host species: the rusty-patched bumble bee and yellow-banded bumble bee. As a parasitic species, it depends on the availability of host bee nests to lay its eggs.
- Pesticide use, the spread of pathogens, and habitat loss are also major threats.



Sustainable practices



- Reduce the use of pesticides that can integrate with the pollen and nectar of nearby flowers, threatening the survival of bumble bees that feed on them.
- Wherever possible, reduce activities that affect the soil (removal of wood debris, compaction, drainage modifications), as these can destroy or harm bumble bee nesting and overwintering habitats.
- Cultivate a variety of herbaceous plants that bloom at different times of the season in marginal and riparian areas.

- As of 2023, **endangered** species listed on Schedule 1 of the *Species at Risk Act*
- Recovery Strategy for the Gypsy Cuckoo Bumble Bee (*Bombus bohemicus*) in Canada [Proposed]: www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/recovery-strategies/gypsy-cuckoo-bumble-bee-proposed-2022.html

Sources

Nature Conservancy of Canada. (n.d.). "Psithyre bohémien." www.natureconservancy.ca/fr/nos-actions/ressources/especes-en-vedette/insectes-et-araignees/psithyre-bohemien.html

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