

You can make a difference in conserving the endangered rusty patched bumble bee. Create habitat and decrease pesticide use in backyards and parks in urban landscapes.

Bumble bees and other pollinators need high quality habitat to survive. For the rusty patched bumble bee, urban habitats can be just as important as rural landscapes. Keeping urban habitats pesticide free is important for habitat quality and for the recovery of the rusty patched bumble bee.



Iowa State University, staff,
<https://hortnews.extension.iastate.edu/2011/6-1/bumblebee.html>



Johanna James-Heinz,
<http://xerces.org/rusty-patched-bumble-bee/>



Queen photo by Rich Hatfield available at
<https://flic.kr/p/wP2Yz9>

Bumble bee ground nest (left), rusty patched worker on beebalm (center), rusty patched queen (right)

On January 11, 2017, the United States Fish and Wildlife Service placed the rusty patched bumble bee (*Bombus affinis*) on the list of endangered species. The listing became effective on March 21, 2017, making it the first listed bee from the continental United States. The rusty patched bumble bee is a species of bumble bee once common in eastern North America, but in recent years it has declined from an estimated 87% of its historic range. The rusty patched bumble bee is a large social bee that lives in nests in the ground. It was once an excellent pollinator of wildflowers, and many important crops. Both the female workers and males have a small rust-colored patch on the middle of their second abdominal segment. Queens, workers, and males all forage for pollen and nectar.

Consider creating or restoring pollinator habitat. Bumble bees need three things to survive.

1. Food. Plant diverse flowers that bloom from early spring through fall. Rusty patched bumble bees collect nectar and pollen from a variety of flowering plants including native plants, heirloom garden plants, trees, weeds and crops. In your yard, plant heirloom and native species, such as salvia, mint, lupines, asters, bee balm, native prairie plants and spring ephemerals. Don't forget spring blooming shrubs like ninebark and pussy willow and fall blooming plants, like asters, goldenrods, and Glossy Abelia. Bumble bees forage throughout the warm months from spring to fall. Without flowers throughout the season, bumble bee queens and colonies can die.

More information is available on the web:

[Plants Favored by Rusty Patched Bumble Bee, U.S. Fish and Wildlife](#)
[Attracting Pollinators to Your Garden, U.S. Fish and Wildlife](#)
[Pollinator Conservation, Xerces Society](#)



2. Habitat: Leave some areas undisturbed for nesting and overwintering. Bumble bees nest under bunch grasses, piled stones, brush and compost piles, in abandoned rodent holes, or other overgrown areas. Bumble bees queens need a safe place to overwinter or hibernate. Areas with bare soil and leaf litter (including evergreen needle duff) are likely to support overwintering queens.

3. Management. Pesticides should not be used in or around nesting and forage sites. Pesticides that enter nesting habitat and foraging areas can harm and even kill bees.

A number of pesticides and pesticide ingredients can harm bees

- Insecticides can be toxic and harm bees.
- Herbicides can kill the plants that bees use for food and shelter.
- Fungicides can be toxic to bees.
- Some additives used in pesticides can be toxic to bees.

By minimizing pesticide use, you can help conserve this once common bee.

To help conserve the rusty patched bumble bee consider the following ways to reduce the harmful impacts of pesticides:

1. Avoid the use of pesticides, especially insecticides, when there are flowers blooming.

Remember, that bumble bee queens could be nesting or overwintering undetected in urban landscapes throughout the year, and could be exposed at any time. Healthy urban landscapes can be maintained with little or no pesticide use.

2. Follow the principles of IPM, Integrated Pest Management, and/or hire professionals who use IPM. IPM addresses the source of pest problems, whereas pesticides simply respond to the pest. The first step is to accept that plants can handle some pest pressure. If pests threaten the health of your plants, help make the plants more resistant to pest and disease by managing them with the proper amount of nutrients, sunlight and water. Improve the health of lawns and decrease insect and disease problems by aerating, top dressing, and providing nutrients.

3. If you feel the need to use a pesticide, only spot treat with pesticides. Use the principles of IPM and confirm that the pest is in sufficient numbers to cause long-term harm the host plant. All insecticides are toxic to pollinators, but some are less risky. If you decide an insecticide is needed consider products made with spinosad, azadirachtin, neem oil, horticultural oils, or insecticidal soaps. No insecticide is completely safe, but these can break down quickly.

More information is available on the web:

[Pollinator Conservation, UMinnesota](#)

4. Strongly consider not using herbicides and permitting flowering plants to grow in the lawn. A pollinator-friendly lawn contains small flowering plants like dandelions, clover, self-heal, blanket flower, and creeping thyme.

5. Avoid the use of highly toxic systemic, neonicotinoid insecticides, such as imidacloprid, clothianidin, thiamethoxam, and dinotefuran. These insecticides are translocated to pollen and nectar and can remain in the plant months to years after a single application.

6. In turf for beetle grubs in the soil use consumer available products that contains insecticides, like chlorantraniliprole, that are less toxic than other turf products, which contain systemic neonicotinoids. Ask you lawn service to use this insecticide for grubs in soil and adults on leaves. Before using any insecticide, confirm that the insects are in sufficient numbers to harm the grass.

7. Read the EPA approved label that will be attached to the pesticide package, with safety and application information. Read the label to locate information on hazards to pollinators and application methods to protect pollinators. Remember that product labels are legally binding and must be followed exactly, including specific pollinator protection language.

8. When purchasing pollinator-friendly plants ask if the plants were treated with neonicotinoids. Avoid buying or planting plants that have been treated with neonicotinoids. Also, many garden annuals have been bred for longevity, not to provide nectar or pollen, so consult a pollinator-friendly plant list before purchasing.

More information is available on the web:

[Pollinator Conservation, Xerces Society](#)

The sum of your year round land management practices will make a difference. Avoid the use of pesticides, manage with IPM, and retrofit the landscape with plants that provide pollen and nectar for bees and other pollinators.

You can make a difference.

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