

Many bumble bees are in decline.



Bombus impatiens colony, T'ai Roulston

Bumble bees are invaluable pollinators. We rely on them to pollinate our fruits, vegetables, and thousands of native plant species.

Many of our North American bumble bees are experiencing steep population declines. For example, the once common *Bombus affinis*, the rusty-patched bumble bee, has declined by roughly 80% and is only found in isolated areas within its historic range. Threats to bumble bees include parasites, disease, habitat loss, climate change, pesticides, and invasive species, among others.

The bumble bees featured in this pamphlet are all found in Virginia. If you are interested in learning how to identify our local bumble bees, start by observing the markings of each species. Most *Bombus* species can be recognized by the pattern of the yellow and black bands on their thorax and abdomen.



Bombus griseocollis on butterflyweed, Charlotte Lorick

WHAT CAN YOU DO?

Plant native plants!

Bumble bees need a stable source of nectar and pollen throughout the growing season, so plant a suite of native flowers that bloom from early spring to fall. Native plants are recommended because they are beneficial to other insects and wildlife as well. For tips on gardening with native plants, visit the Virginia Native Plant Society's website at: www.vnps.org

Reduce or stop using pesticides!

If you use pesticides, visit www.xerces.org to learn which chemicals are the most toxic to bees and how and when to apply pesticides in order to minimize impacts to bees.

Protect the nest!

Bumble bees nest in the ground during the summer and queens overwinter just an inch or two below the soil's surface. If you see an area of your yard with a lot of bee activity, do not disturb it if possible. Postpone tilling and other soil disturbance practices in this area in the early spring to allow queens to emerge.

Become a volunteer!

Participating in citizen science-based projects is a great way to assist in the monitoring of long-term trends of native bee species. Bumble Bee Watch is an important national monitoring project that allows citizen scientists to submit online sightings and photographs at www.bumblebeewatch.org.

Virginia Working Landscapes is currently monitoring bee populations across 13 Virginia counties in an effort to understand the long-term trends of relative abundance and species composition. To become a VWL Citizen Scientist, visit us on the web at www.VAWorkinglandscapes.org!

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Bumble Bees of Virginia



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B u m b l e B e e s o f V i r g i n i a



Black and gold bumble bee
Bombus auricomus
Uncommon; visits bee balm
and nightshades.
Tongue length: long



Common eastern bumble bee
Bombus impatiens
Common; a commercial pollinator
of greenhouse tomatoes.
Tongue length: medium



Brown-belted bumble bee
Bombus griseocollis
Common; visits milkweeds,
thistles, sunflowers.
Tongue length: medium



Two-spotted bumble bee
Bombus bimaculatus
Common; Found on thistles
and clovers.
Tongue length: medium



American bumble bee
Bombus pennsylvanicus
Uncommon, possibly in decline,
species of conservation concern;
visits vetches, goldenrods, clovers.
Tongue length: long



Rusty-patched bumble bee
Bombus affinis
Rare, in decline,
species of conservation concern;
visits sunflowers, goldenrods.
Tongue length: short



Half-black bumble bee
Bombus vagans
Common; seen on milkweeds,
meadowsweet.
Tongue length: medium



Sanderson bumble bee
Bombus sandersoni
Uncommon; visits bee balms,
beard tongues, apple trees.
Tongue length: short



Yellow bumble bee
Bombus fervidus
Uncommon, possibly in decline;
seen on honeysuckles, thistles.
Tongue length: long



Confusing bumble bee
Bombus perplexus
Common; found on St. John's
Wort, honeysuckles.
Tongue length: medium



Lemon cuckoo bumble bee
Bombus citrinus
Widespread; parasitizes
B. impatiens, *B. vagans*.