

Funding for bumble bee conservation provided by the CS Fund. Guide developed and illustrated by Elaine Evans, The Xerces Society. Thanks to Dr. Robbin Thorp, UC Davis.

If you find *Bombus affinis*, please contact bumblebees@xerces.org. Visit www.xerces.org/bumblebees for more information.

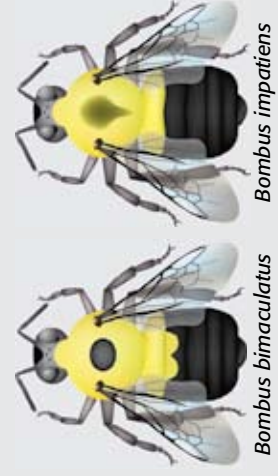
The rusty patched bumble bee was once common in the eastern United States and the upper Midwest. They can still occasionally be found in isolated patches, but *B. affinis* has disappeared from most of its former range in recent years. Your efforts to search for this bee will help document their current range. The Xerces Society and scientists studying declining bumble bees will use this information to promote conservation of remaining *B. affinis* populations.



Map based on Milliron 1971, *A Monograph of the Western Hemisphere Bumblebees*.

Historic range of *Bombus affinis*

Similar bees without yellow at the rear of the second abdominal segment



Bombus bimaculatus *Bombus impatiens*



Bombus griseocollis

Similar bees with yellow at the rear of the second abdominal segment



Bombus vagans worker *Bombus citrinus* male (cuckoo bee)

B. affinis and *B. vagans* females, and *B. citrinus* males have yellow hair covering most of the first two abdominal segments. However, *B. affinis* workers have a rusty patch on the second abdominal segment.

B. vagans workers and *B. citrinus* males have yellow hair on the top of their heads while *B. affinis* have black hair on the top of their heads. In addition, *B. vagans* have a longer face than do *B. affinis*.



Black-headed short-faced bee



Yellow-headed long-faced bee

Other common bumblebees of eastern North America

There are around 20 bumble bee species present in eastern North America. Females of some of the most commonly found bees are pictured here. Some species pictured have varieties with different coloration.

For more identification information, visit www.discoverlife.org and www.bugguide.net



Bombus auricomus



Bombus pensylvanicus



Bombus fervidus



Bombus fraternus



Bombus rufocinctus



Bombus rufocinctus

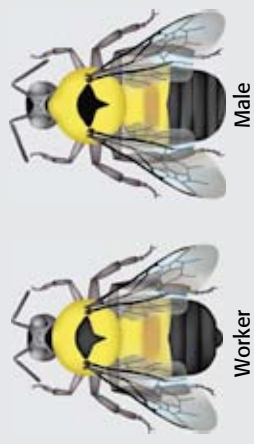


Bombus terrarius



Bombus citrinus (cuckoo bee)

Identifying *Bombus affinis*



Male Worker

Workers and males have a distinctive rusty brown patch on the front half of their second abdominal segment. The hair on their heads is mostly black. On the thorax, black hairs extend from a central patch in the middle of the thorax out towards the wings and centrally in a narrow V towards the rear.

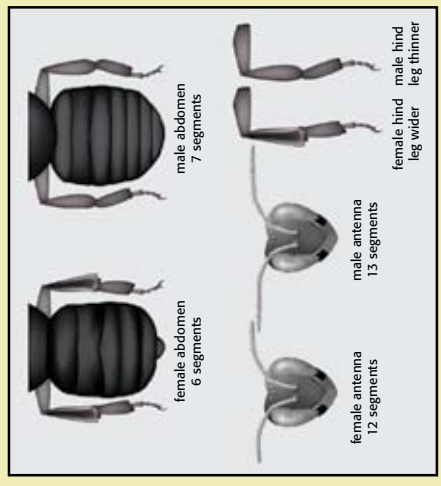
Queens are similar to workers except they are larger in size and do not have the rusty patch on the abdomen.



Queen

Male or female ?

Females have 6 abdominal segments versus 7 in males. Females have 12 antennal segments versus 13 in males. Female hind legs are wider than male hind legs.



Females are found through spring, summer, and early fall. Workers and queens are both female. Males can be common in late summer and early fall. Females have pollen baskets (an indentation onto which they sometimes pack pollen) on their hind legs, and shorter antennae and abdomens. Males sometimes have larger eyes and longer hair.



Photo by Yohanna James-Heinz

POCKET GUIDE TO IDENTIFYING THE RUSTY PATCHED BUMBLE BEE *BOMBUS AFFINIS*

www.xerces.org/bumblebees
THE XERCES SOCIETY
FOR INVERTEBRATE CONSERVATION