

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 occidentalis*, please contact [bumblebees@xerces.org](mailto:bumblebees@xerces.org). Visit [www.xerces.org/bumblebees](http://www.xerces.org/bumblebees) for more information.

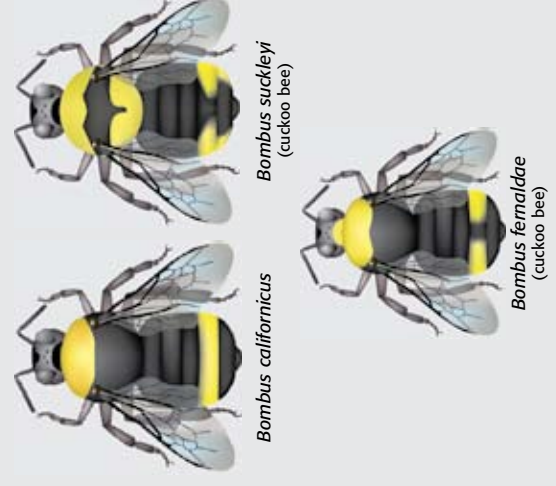
The western bumble bee was once commonly found in the western United States and Canada. They can still be found in northern and eastern parts of their historic range, but populations from southern British Columbia to central California have nearly disappeared in recent years. Your efforts to search for this bee will help document their current range. The Xerces Society and scientists studying bumble bee decline will use this information to promote conservation of remaining *B. occidentalis* populations.



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

**Historic range of *Bombus occidentalis***

**Similar female bees with yellow on the 4th abdominal segment**

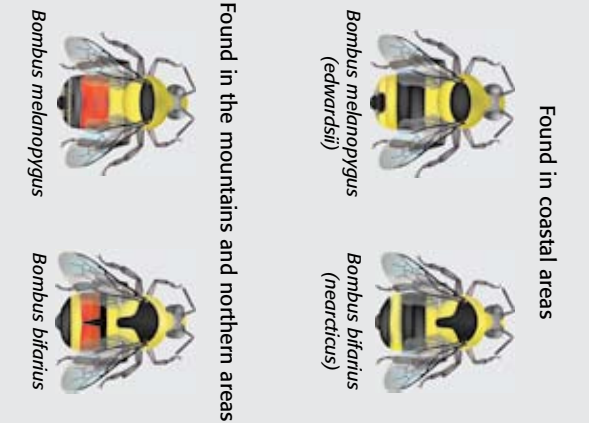
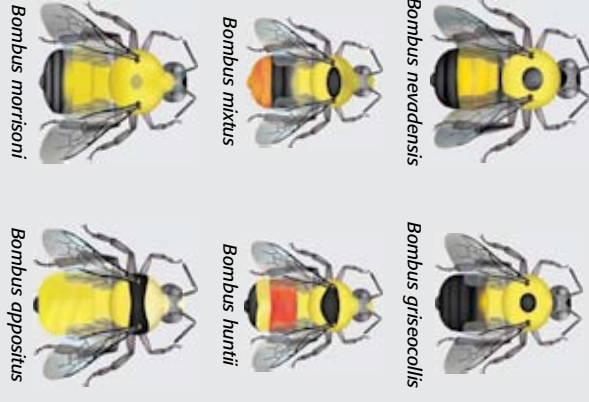


These look-a-like bees have yellow hair on the 4th abdominal segment, as opposed to *B. occidentalis* with black or white hair on the 4th abdominal segment.

**Other common bumble bees of western North America**

There are around 30 bumble bee species present in western North America. Females of some of the most commonly found bees are pictured here. Some species pictured have varieties with different coloration.

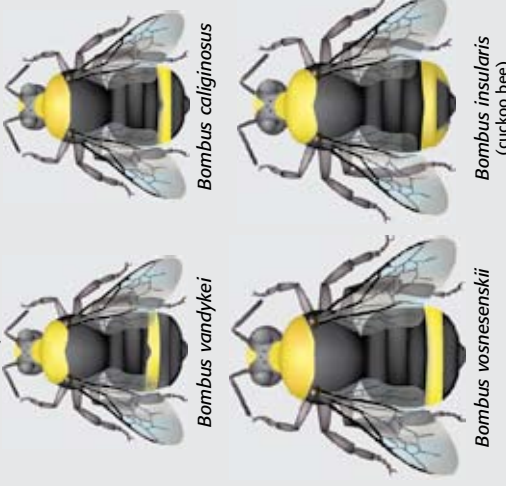
For more identification information, visit [www.discoverlife.org](http://www.discoverlife.org) and [www.bugguide.net](http://www.bugguide.net)



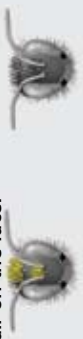
Found in the mountains and northern areas

Found in coastal areas

**Similar female bees with yellow on the head**

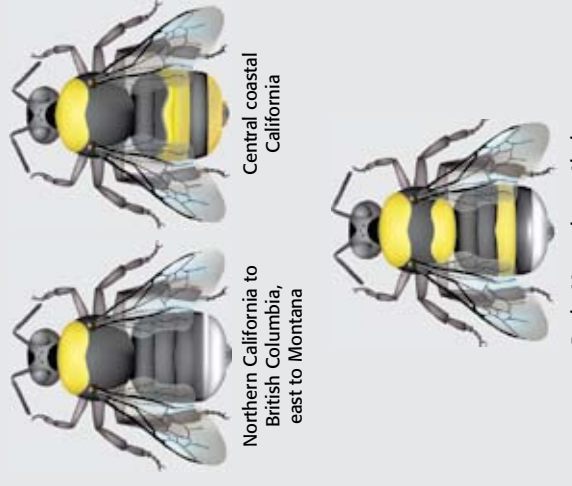


These look-a-like bees have prominent yellow hair on the face, as opposed to *B. occidentalis* with all black hair on the face.



Black-headed bee      Yellow-headed bee

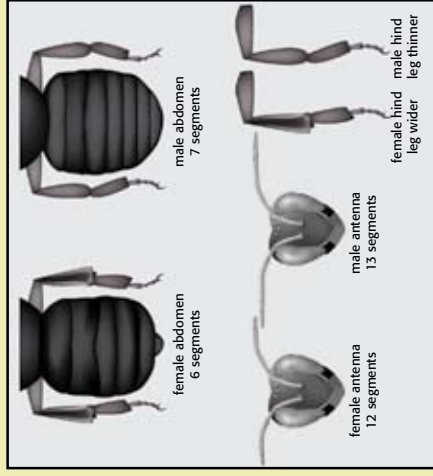
**Common female *Bombus occidentalis* varieties**



These three varieties of *B. occidentalis* represent the most commonly found color patterns. Some bees are intermediate between these varieties.

**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. Bumble bees pictured and described in this guide are all female bees.



Photo by Derrick Ditchburn

**POCKET GUIDE TO IDENTIFYING THE WESTERN BUMBLE BEE *BOMBUS OCCIDENTALIS***

[www.xerces.org/bumblebees](http://www.xerces.org/bumblebees)  
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If you find *Bombus affinis*, please contact [bumblebees@xerces.org](mailto:bumblebees@xerces.org). Visit [www.xerces.org/bumblebees](http://www.xerces.org/bumblebees) for more information.

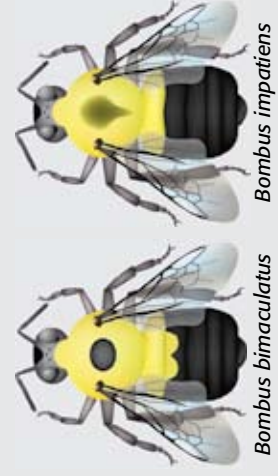
The rusty patched bumble bee was once common in the eastern United States and the upper Midwest. They can still occasionally be found in isolated patches, but *B. affinis* has disappeared from most of its former range in recent years. Your efforts to search for this bee will help document their current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

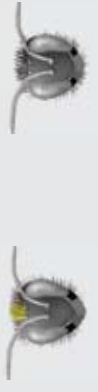
**Similar bees with yellow at the rear of the second abdominal segment**



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

*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*.

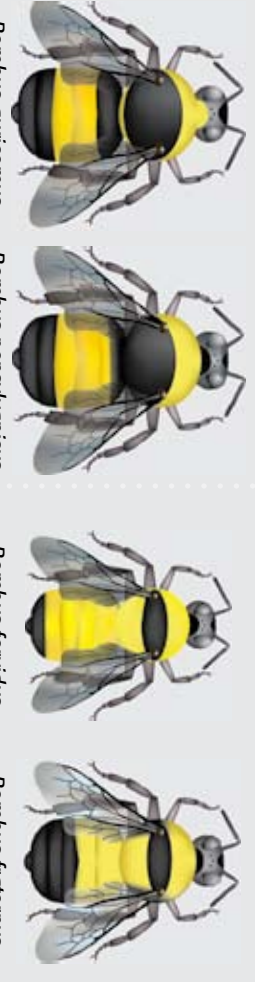


Black-headed short-faced bee Yellow-headed long-faced bee

**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](http://www.discoverlife.org) and [www.bugguide.net](http://www.bugguide.net)



*Bombus auricomus* *Bombus pensylvanicus* *Bombus fervidus* *Bombus fraternus*

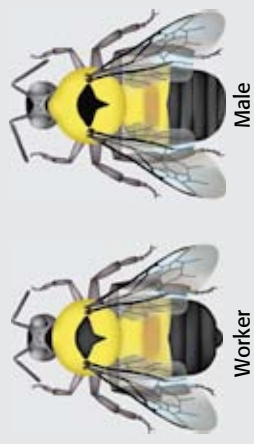


*Bombus rufocinctus* *Bombus rufocinctus* *Bombus terrarius*



*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.

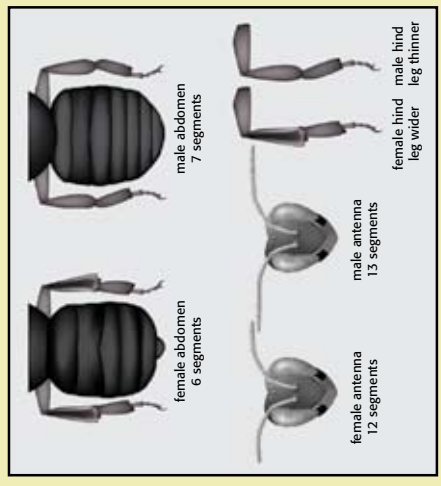
Queens are similar to workers except they are larger in size and do not have the rusty patch on the abdomen.



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**

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The yellowbanded bumble bee was once commonly found throughout much of eastern North America. They can still be found occasionally in isolated patches, but *B. terricola* 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 bumble bee decline will use this information to promote conservation of remaining yellowbanded bumble bee populations.



**Historic range of *Bombus terricola***

*Bombus terrarius*



*Bombus vagans*



*Bombus citrinus* (cuckoo bee)



*Bombus griseocollis*



*Bombus bimaculatus*



*Bombus impatiens*



*Bombus fervidus*



*Bombus fraternalis*

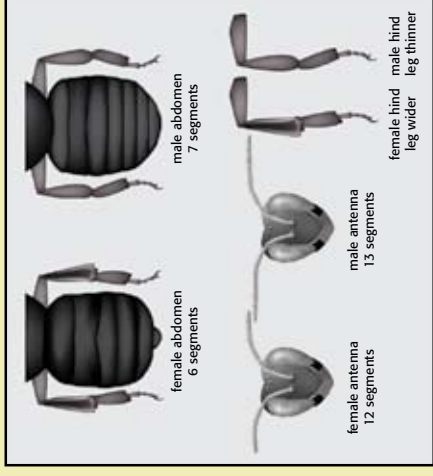


There are around 20 bumble bee species present in eastern North America. Females of some of the most commonly found bees are pictured here. Some species pictured have varieties with different coloration. For more identification information, visit [www.discoverlife.org](http://www.discoverlife.org) and [www.bugguide.net](http://www.bugguide.net)

**Other common bumble bees of eastern North America**

**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.

**Similar bumble bees**

Females



*Bombus auricomus* *Bombus pennsylvanicus*

*B. auricomus* have yellow hair on top of their head. *B. pennsylvanicus* have yellow at the rear edge of their first abdominal segment. *B. auricomus* and *B. pennsylvanicus* lack the fringe of brown hair on the fifth abdominal segment present on *B. terricola*.

Males



*Bombus auricomus* *Bombus pennsylvanicus*

Male *B. auricomus* and *B. pennsylvanicus* have yellow hair along the rear of the thorax while *B. terricola* males have black hair.

**Identifying *Bombus terricola***



Queen  
Worker

Workers and queens have yellow on the front of the thorax as well as on abdominal segments two and three. The head and other abdominal segments are black with the exception of a fringe of brownish yellow hair on the far edge of the fifth abdominal segment. Queens are similar to workers except they are larger in size. There is variation in coloration across its range.

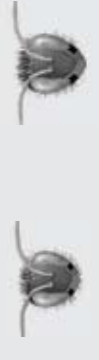


Male

Male coloration is similar to females, except for patches of long pale yellow hair on the top of their heads and the front of their faces.

**Heads of similar bumble bees**

Females



*B. auricomus* and *B. pennsylvanicus*

Female *B. terricola* have short faces whereas *B. auricomus* and *B. pennsylvanicus* have long faces.

Males



*B. terricola* *B. auricomus* *B. pennsylvanicus*

Male *B. terricola* have a prominent patch of yellow hair on the front of their faces, while *B. pennsylvanicus* have mostly black hair on the front of their faces. *B. auricomus* males have much larger eyes than *B. terricola* males.



**POCKET GUIDE TO IDENTIFYING THE YELLOWBANDED BUMBLE BEE *BOMBUS TERRICOLA***

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# Folding instructions for Xerces Society bumble bee guides

Use borderless printing for best results.



Fold in half along horizontal dotted line.



Fold accordion-style along three vertical dotted lines.