

Guide to Minnesota Bumble Bees: Females



UNIVERSITY OF MINNESOTA EXTENSION

This guide is only for females (12 antennal segments, 6 abdominal segments, most have pollen baskets, no beards on their mandibles). Color patterns can vary. Bumble bees are depicted in relative size. Ab = abdominal segment

E Endangered: at risk of extinction **U** Uncommon: few records in MN **C** Common **D** Declining: populations dropping
Population status from IUCN and MN records as of 2022

Many yellow hairs between wings, 1st abdominal band yellow (may have black spot in center of thorax)

1. Black on sides of Ab 2, yellow or rusty in center



Ab 2 with yellow in middle, black on sides. Yellow often in a "W" shape. Top of head yellow.

Bombus bimaculatus
two-spotted bumble bee

C

2. All other Ab black



Ab 2 yellow in center bordered by rusty brown swoop. Top of head black.

Bombus griseocollis
brown-belted bumble bee

C

3. Ab 2 brown center surrounded by yellow



Light lemon yellow hairs on top of head and on thorax.

Bombus impatiens
common eastern bumble bee

C

4. No obvious spot on thorax



Worker. Center spot on thorax with faint V shaped extension back from middle.

Bombus affinis
rusty patched b b

E

Variable color. Often Ab 3 yellow, side of thorax dark.

Bombus perplexus
confusing bumble bee

5. Ab 1-3 yellow



Sides of thorax black.

Bombus nevadensis
Nevada bumble bee

U

Many yellow hairs between wings contd.

6. Ab 2 entirely yellow and ab 3-6 black



Top of head yellow. Few black hairs on thorax. Elongate cheek (see inset).

Bombus vagans
half-black bumble bee



Sometimes black hairs near wing base. More square cheek than vagans (see inset).

Bombus sandersoni
Sanderson's bumble bee



Queen. Black on top of head. Round face.

Bombus affinis
rusty patched bumble bee

E

Rear of thorax predominantly black. Hairy abdomen.

1. Large size, long face



Often black on Ab 2. Short spine on hind basitarsus.

Bombus auricomus
black and gold bumble bee



Yellow on middle edge of Ab 1. Long spine on hind basitarsus.

Bombus pensylvanicus
American bumble bee

D

2. Small size, round face



Fringe of yellow hairs near end of abdomen. Round face.

Bombus terricola
yellowbanded b b

D

Black stripe between wings. Few if any yellow hairs at wing base.

1. Yellow on Ab 1-4



Black on top & front of head. Sides of thorax yellow.

Bombus fervidus
yellow bumble bee



Yellow on top & front of head. Sides of thorax with brown.

Bombus borealis
boreal bumble bee

2. Orange/red on all of Ab 2-3



Black extending back from center stripe on thorax. Black hairs on face & top of head.

Bombus ternarius
tricolored bumble bee

C



Yellow hairs on face & top of head. Far west MN.

Bombus huntii
Hunt's bumble bee

U

3. Ab 1 & front edge of Ab 2 yellow. Ab 3 red or black. Ab 4-5 red, black, or yellow.



Variable. Cheek shorter. Always dark band on thorax with few yellow hairs near wing base. Can have intermixed red, yellow, & black hairs.

Bombus rufocinctus
red-belted bumblebee

Black stripe between wings contd.

4. Orange/red on Ab 4-5



North MN.

Bombus frigidus
frigid bumble bee

U

5. Yellow on Ab 1-2



Black on side of thorax. Southern MN.

Bombus fraterus
southern plains bumble bee

D

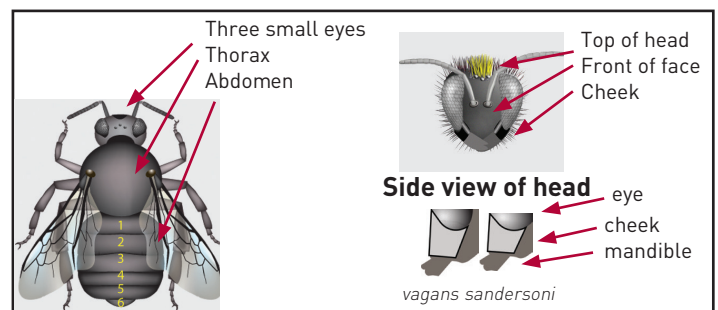
6. Ab 1 yellow. Ab 2-3 red/black



Head length medium. Dark hairs mixed with light on front of thorax.

Bombus melanopygus
black tail bumble bee

U



Much of abdomen lacking hair, no pollen baskets, wide head. Uncommon at flowers.

1. Black top of head



Side of thorax mostly dark.

Bombus ashtoni
Ashton's cuckoo bumble bee

E

2. Yellow top of head and top of thorax yellow



Side of thorax mostly yellow.

Bombus citrinus
lemon cuckoo bumble bee



Side of thorax mostly dark.

Bombus variabilis
Variable cuckoo bumble bee

E

3. Yellow top of head and rear thorax black



Ab 4 yellow.

Bombus insularis
indiscriminate cuckoo bumble bee



Ab 6 strongly curled under abdomen. Ab 1 sometimes black.

Bombus flavidus
Golden cuckoo bumble bee

Guide to Minnesota Bumble Bees: Males

This guide is only for males (13 antennal segments, 7 abdominal segments, mostly seen in late season, no pollen baskets, beards on their mandibles). Color patterns can vary. Bumble bees are depicted in relative size.

Ab = Abdominal segment Ant = Antennal segment



Common



Endangered



Declining

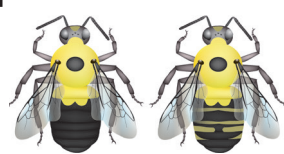


Uncommon

Population status from IUCN and MN records as of 2022

3rd abdominal segment black AND thorax with some yellow near wing base

1. Black on sides of 2nd Ab, yellow or rusty in center



Ab 2 with yellow "W" shape in middle, black on sides. Eyes not large. Sometimes yellow intermixed with black on Ab.

Bombus bimaculatus
two-spotted bumble bee



Ab 2 with yellow in middle, bordered by rusty brown in a swooping shape. Large eyes.

Bombus griseocollis
brown-belted bumble bee



Light lemon-yellow hairs on top of head & thorax.

Bombus impatiens
common eastern bumble bee



Center spot on thorax with sometimes faint V shaped extension back from middle.

Bombus affinis
rusty patched bumble bee



4. 2nd Ab entirely yellow and Ab 3-6 black



Ant 3 is long. Black hair on thorax limited to central spot.

Bombus vagans
half-black bumble bee



Ant 3 is short. Short hairs on back of Ant 2 & 3. Sometimes many black hairs on thorax.

Bombus sandersoni
Sanderson's bumble bee



Large eyes.

Bombus fraterculus
southern plains bumble bee



Bombus variabilis
variable cuckoo bumble bee



5. Sides of thorax brown. Wide head.

Abdominal segments 1-3 yellow, 4-7 with black or orange

1. Black spot in center of thorax



Wide head. Thorax with black extension back from center.

Bombus citrinus
lemon cuckoo bumble bee



Bombus auricomus
black and gold bumble bee

Large eyes. Ab 4-7 black. Hair on thorax varies, black in center or all yellow. Sometimes yellow on Ab 4.



Bombus nevadensis
Nevada bumble bee



2. No obvious spot on thorax



Variable color patterns.

Bombus perplexus
confusing bumble bee

Black stripe between wings. Few if any yellow hairs at wing base.

1. Ab 1-4 yellow



Black top & front of head. Sides of thorax yellow.

Bombus fervidus
yellow bumble bee



Bombus borealis
boreal bumble bee

Yellow top & front of head. Sides of thorax with brown.



Bombus pennsylvanicus
American bumble bee



Bombus insularis
indiscriminate cuckoo b.b.

Ab 1-4 yellow. Wide head.

2. Orange/red on all of Ab 2-3



Bombus ternarius
tricolored bumble bee

North MN



Bombus huntii
Hunt's bumble bee

Far western MN



Bombus frigidus
frigid bumble bee

North MN

Black stripe between wings contd.

4. Ab 1 yellow. Ab 2-3 red/black



Head length medium. Dark hairs mixed with light on front of thorax.

Bombus melanopygus
black tail bumble bee



Bombus flavidus
Golden cuckoo bumble bee

Variable color. Sometimes more black on Ab, orange at tip. Wide head.



Bombus rufocinctus
red-belted bumble bee

5. Ab 1 & front edge of Ab 2 yellow. Ab 3 red/black. Ab 4-5 red, black, or yellow.



Eyes slightly enlarged. Few yellow hairs between wing bases. Few black or red hairs at edge of Ab 2. Color variable.



Bombus terricola
yellowbanded bumble bee



2. Ab 1 yellow



Bombus ashtoni
Ashtons cuckoo b.b.

