Guide to Minnesota Bumble Bees: Females

This guide is only for females (12 antennal segments, 6 abdominal segments, most bumble bees, most have pollen baskets, no beards on their mandibles). First determine which section your bee is in, then go through numbered characters to find a match. See if your bee matches the description in the text as well as the color pattern. Color patterns can vary. Bumble bees are depicted in relative size. Search for bumble bees with www.bumblebeewatch.org

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
   - Bombus bimaculatus (two-spotted bumble bee)
   - Bombus griseocollis (brown-belted bumble bee)

2. All other Ab black
   - Bombus impatiens (common eastern bumble bee)
   - Bombus rufocinctus (red-belted bumblebee)

3. Ab 2 brownish centrally surrounded by yellow
   - Light yellow hairs on top of head and thorax.
   - Bombus impatiens (common eastern bumble bee)

4. No obvious spot on thorax
   - Worker. Center spot on thorax with sometimes faint V shaped extension back from middle.
   - Bombus variabilis (variable cuckoo bumble bee)

5. Ab 2 entirely yellow and ab 3-6 black
   - Bombus vagans (half-black bumble bee)
   - Bombus sandersoni (Sanderson’s bumble bee)

6. Yellow on front edge of Ab 2. Dark hairs near wing bases
   - Bombus rufocinctus (red-belted bumblebee)

Black stripe between wings. No yellow hairs at wing base.

1. Yellow on Ab 1-4
   - Bombus fervidus (yellow unbumble bee)
   - Bombus borealis (boreal bumble bee)

2. Orange/red on Ab 2-3
   - Bombus ternarius (tricolored bumble bee)
   - Bombus huntii (Hunt’s bumble bee)

3. Orange/red on Ab 4-5
   - Bombus frigidus (frigid bumblebee)

Back half of thorax is predominantly black. Hairy abdomen.

1. Large size, long face
   - Bombus auricomus (black and gold bumble bee)
   - Bombus pensylvanicus (American bumble bee)

2. Small size, round face
   - Bombus terricola (yellow-banded bumble bee)

Much of abdomen lacking hair, no pollen baskets, wide head (uncommon)

1. Black top of head
   - Bombus ashtoni (Ashton’s cuckoo bumble bee)

2. Yellow top of head and top of thorax yellow
   - Bombus variabilis (Variable cuckoo bumble bee)

3. Yellow top of head and rear thorax black
   - Bombus insularis (indiscriminate cuckoo bumble bee)
   - Bombus flaviviridis (Fernald 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). First determine which section your bee is in, then go through numbered characters to find a match. See if your bee matches the description in the text as well as the color pattern. Color patterns can vary.

Bumble bees are depicted in relative size. Join the search for bumble bees with www.bumblebeewatch.org to find a match. See if your bee matches the description in the text as well as the color pattern. Color patterns can vary.

Abdominal segments 1-3 yellow, 4-7 black

1. Black spot in center of thorax
   - Not large eyes. Wide head.
   - Abdominal segments 1-3 yellow, 4-7 black
   - **Bombus** citrinus
     - Lemon cuckoo bumble bee

2. No obvious spot on thorax
   - Large eyes.
   - **Bombus** auricomus
     - Black and gold bumble bee
   - **Bombus** perplexus
     - Confusing bumble bee

Thorax with some yellow near wing base AND 3rd abdominal segment black or orange

1. Black on sides of 2nd Ab, yellow or rusty in center
   - Ab 2 with yellow in middle, black on sides. Yellow often in a “W” shape. Eyes not large.
   - **Bombus** bimaculatus
     - Two-spotted bumble bee
   - **Bombus** griseoceollis
     - Brown-belted bumble bee

2. 2nd Ab black
   - Light lemon yellow hairs on top of head and on thorax.
   - **Bombus** impatiens
     - Common eastern bumble bee
   - **Bombus** rufocinctus
     - Red-belted bumble bee

3. 3rd Ab orange
   - Eyes slightly enlarged. Color pattern variable.
   - **Bombus** affinis
     - Varied bumble bee
   - **Bombus** variabilis
     - Variable cuckoo bumble bee

Thorax with black stripe between wings. Nearly all hairs near wing base are black.

1. Ab 1-4 yellow
   - **Bombus** fervidus
     - Yellow bumble bee
   - **Bombus** borealis
     - Boreal bumble bee
   - **Bombus** pensylvanicus
     - American bumble bee

2. Ab 2-3 orange
   - Common in northern MN.
   - **Bombus** ternarius
     - Tricolored bumble bee
   - **Bombus** huntii
     - Hunt’s bumble bee
   - **Bombus** frigidus
     - Frigid bumble bee

3. Ab 3 black
   - **Bombus** impatiens
     - Common eastern bumble bee
   - **Bombus** rufocinctus
     - Red-belted bumble bee
   - **Bombus** variabilis
     - Variable cuckoo bumble bee

Rear half thorax is black

1. Ab 1 black
   - Smaller and stouter than many other bumble bees. Fringe of yellow hairs near end of abdomen.
   - **Bombus** terricola
     - Yellowbanded bumble bee
   - **Bombus** insularis
     - Indiscriminate cuckoo bumble bee

2. Ab 1 yellow
   - Ab seg 1 yellow. Wide head. Rare.
   - **Bombus** bohemicus
     - Gypsy’s cuckoo bumble bee
   - **Bombus** flavidus
     - Fernalde’s cuckoo bumble bee

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