

Key to Female Bumble Bees

START For females, look at thorax and choose arrow A, B, or C

If the thorax is:
all yellow OR yellow with a black spot

A

...then look at abdominal segments 1 and 2

- 1** entirely yellow
- 2** segment 1 yellow; segment 2 brownish or yellow arch (common or less common)
- 3** segment 1 yellow; segment 2 yellow-lobed pattern
- 4** segment 1 yellow; segment 2 black
- 5** segments 1 and 2 black
- 6** segment 1 yellow; segment 2 brownish centrally

A1 **A2** **A3** **A4** **A5** **A6**

B. affinis (R) **B. vagans** (R) **B. griseocollis** (C) **B. bimaculatus** (C) **B. impatiens** (C) **B. citrinus** (R) **B. variabilis** (V)

Cuckoo Bumble Bees

- B. citrinus** (R): side of thorax yellow; abdomen often yellow on segment 3; thoracic spot small or absent.
- B. variabilis** (V): side of thorax black; abdomen usually all black; thoracic spot large.

If the thorax is:
yellow with a distinct black band between the wing bases

B

...then look at the whole abdomen

- 1** first 4 segments are yellow
- 2** 2nd segment with brown internally, otherwise yellow
- 3** segments 1 and 2 yellow, rest black
- 4** all black ... go to A5
- 5** 2nd and 3rd segments yellow, 1st segment yellow or black, rest black

B. fervidus (O) **B. affinis** (R) **B. fraternus** (V)

If the thorax has:
yellow collar (anterior thorax) and rest is all black or a mix of yellow and black nearest the abdomen (posterior thorax)

C

...then either

- a**
 - abdominal segment 1 usually all black
 - top of head with yellow stripe
 - posterior thorax often with yellow but varies from all black to all yellow
 - side view of head fatter at the middle
 - small eyes (ocelli; 3 circles) lower on face

B. auricomus (O)
- b**
 - abdominal segment 1 usually with some yellow, especially in the center
 - the top of the head all black
 - posterior thorax usually black but varies from all black to mostly yellow
 - side view of head fatter at the top
 - small eyes (ocelli) higher on face

B. pensylvanicus (O)

Key to Male Bumble Bees

START For males, start by looking at the abdomen and choose which purple arrow (A-E) best describes it.

If 1st segment is yellow, and the rest are black.....

A

B. impatiens (C)

If 1st 2 segments have some color, and the rest are black.....

B

...then look at the color of abdominal segments 1 and 2.

- 1** segment 1 yellow; segment 2 with yellow-lobed pattern
- 2** segment 1 yellow; segment 2 with brownish or yellow arch; large eyes
- 3** without any black
 - thorax yellow or with a small black spot; regular-sized eyes; shaggy hair; long face
 - black band or large spot on thorax; large eyes; short, coarse hair; very short face
 - black band or large spot on thorax; tan arch in 2nd segment; regular eyes; mid-length hair; shortish face;

B. bimaculatus (C) **B. griseocollis** (C) **B. vagans** (R) **B. fraternus** (V) **B. affinis** (R)

If 1st 3 abdominal segments are yellow, rest black

C

- large eyes; hair short and even; face yellow mixed with black
- regular-sized eyes; hair shaggier; face black

B. auricomus (O) **B. citrinus** (R)

If abdomen has repeated black and yellow striping or is all black

D

B. bimaculatus (C) **B. variabilis** (V) CUCKOO

- C** = common
- O** = occasional
- R** = rare
- V** = very rare

If mostly yellow, 4 to all segments yellow, rest black.....

E

...then look at thorax

posterior thorax has a mix of black and yellow hairs; sides of thorax black

B. pensylvanicus (O)

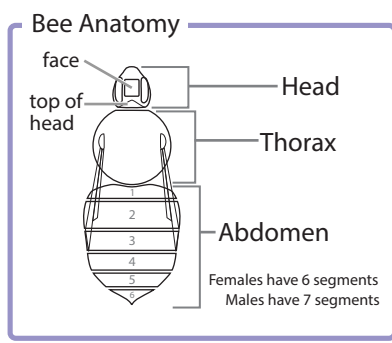
thorax yellow with a spot OR a black band and sides of thorax mostly yellow

- black on thorax a spot or band
- sides of thorax vary from black to yellow
- extent of yellow on abdomen is variable (4-all segments)
- space between eye and mandible is square, as long as wide or shorter

B. pensylvanicus (O)

- black on thorax a band
- sides of thorax usually all yellow
- usually first 5 segments yellow; rest black
- space between eye and mandible is rectangular, longer than broad

B. fervidus (O)



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