









Key to the Bumblebees of Washington

The Methow Naturalist/www.methownaturalist.com/dana@methownet.com Images from www.bumblebee.com

- 1A.  Abdomen with some orange
- 2A.  Orange coloration fairly solid
- 5B.  Orange with thin yellow stripe
- 7A.  Distal orange band wider
- 8A.  Abdomen predominantly black
- 11B.  Head with some yellow
- 13B.  At least some black on thorax
- 16B.  Distal abdomen black & yellow

Notes: This key should be used with the color visual guide to Washington bumblebees, which is in the Spring 2011 issue of *The Methow Naturalist*. This key is fallible. Coloration and color patterns can vary within some species, making ID difficult. Having said that, it will work well most of the time. The information and images in the key only apply to females: queens and workers, which look similar, the queen being larger. Males have no pollen basket on their hind leg, they have 7 abdominal segments (tergites) instead of the 6 of queens and workers, and they have 13 antennae segments compared to 12 for queens and workers. Males will only be around in late summer and fall. They may have different coloration than females, and are not keyed here. Only queens will be present in the spring, until about June 1. These numbers: “Q21-23mm, W10-18mm” indicate bee lengths, as follows: “Queen 21-23 mm long, Worker 10-18 mm long.” If only one number is given no size range was available; for many species no size is offered. Three of the bumblebees in the key are “cuckoo bumblebees”: *B. fernaldae*, *B. insularis* and *B. suckleyi*. These species are “nest parasites,” they lay their eggs in the nests of other species. All three look similar; they lack pollen baskets on their hind legs. The cuckoo bumblebees are rather rare. In the key, the term ‘proximal’ means ‘closer to the head,’ ‘distal’ means ‘further from the head.’ The body is made up of the head, thorax, and abdomen, in that order (see drawing on page 2). The abdomen is made up of individual, visible segments called ‘tergites’ (singular ‘terga’). The six tergites in females are numbered from the proximal end as T1-T6.

- 1A. Abdomen with at least some orange.....2
- 1B. Abdomen all yellow and/or black, lacking orange.....8
- 2A. Orange coloration on abdomen fairly solid and dominant, not striped or alternating with yellow.....3
- 2B. Orange coloration on abdomen either alternating with yellow or concentrated at distal end.....4
- 3A. Black on thorax extends from wing to wing..... **B. lapponicus**—**Lapland BB** (aka sylvicola, head usually yellow, thorax yellow in front & black behind, T2 & T3 orange or red, T5 color mostly yellow)
- 3B. Black on thorax centrally located, surrounded by yellow..... **B. rufocinctus**—**Collared BB** (Q16-18mm, W11-12.5mm, T1 yellow)
- 4A. Orange on abdomen all at the distal end.....5
- 4B. Orange present at on both proximal and distal portions of abdomen, interspersed with yellow.....6
- 5A. Orange patch with little or no yellow stripe, black patch on thorax roundish.....**B. flavifrons flavifrons**—**Yellow-fronted BB** (facial hair yellow, T3 & T4 various but always with at least some black hairs, T6 black)
- 5B. Orange patch usually divided by a thin yellow stripe, black patch on thorax diamond shaped.....**B. centralis**—**Diamondspot BB** (facial hairs all or mostly yellow, T1 & T2 usually yellow, T3 yellow or orange, T4 bright orange, T5 usually light & dark hair mixed, some are all dark), **B. mixtus**—**Variable BB** (facial hair mostly yellow, T2 with yellow hair at least centrally bordered by black, T3 usually black, T4 usually with light hairs, T5 & T6 with reddish or brownish white hair)
- 6A. Abdomen with 3 fairly even bands of orange.....**B. appositus**—**Orange-banded BB** (Q22.5mm, W18mm, facial hair white to yellow, T1-5 orange & yellow, T6 black)
- 6B. Abdomen with 2 bands of orange.....7
- 7A. The 2 orange bands on the abdomen fairly even in width or the distal one wider..... **B. huntii**—**Hunter BB** (facial hair yellow, thorax yellow in front & black behind, T1 yellow with a few black hairs, T2 & T3 with red-orange hair, T4 yellow, T5 black)
- 7B. The proximal orange band wider than the distal one.....**B. melanopygus**—**Black-rumped BB** (head all or mostly yellow, T2 & T3 usually orange/red, T4 with black hair, T5 usually black)
- 8A. Abdomen predominantly black (may have minimal yellow striping).....9
- 8B. Abdomen a mix of black and yellow, or primarily yellow.....13
- 9A. At least a thin yellow strip at distal end of abdomen..... 10
- 9B. No yellow at distal end of abdomen.....12

10A. Black color on thorax surrounded by yellow..... **B. bifarius2 nearticus**—**Double BB** (facial hair usually light or a mix of light & dark, usually a V-shaped black-hair notch on thorax), **B. insularis**—**Island BB** (a cuckoo bumblebee, no pollen basket on hind leg), **B. rufocinctus2**—**Collared BB**, **B. suckleyi**—**Cuckoo BB** (another cuckoo bumblebee, no pollen basket on hind leg)

10B. Black color on thorax not surrounded by yellow (yellow does generally appear at the proximal end).....11

11A. Head black..... **B. californicus**—**California BB** (facial hair black, T1-3 black, T4 yellow/orange)

11B. Head with some yellow.... **B. caliginosus**—**Dark BB** (coastal, not in the Methow, T1-T3 with black hair, T4 all yellow or with yellow border), **B. fernaldae**—**Cuckoo BB** (a cuckoo bumble, no pollen basket on hind leg), **B. insularis**—**Island BB** (a cuckoo bumblebee, no pollen basket on hind leg), **B. vandykei**—**Coast BB** (coastal, not in Methow, T3 with black hair basally and yellow border, T4 with black hair), **B. vosnesenski**—**Yellow-faced BB** (coastal, not in Methow, T1, T2 & T3 with black hair)

12A. Yellow stripe present at proximal end of abdomen (T1).....**B. griseocollis**—**Brownbelted BB** (Q21-23mm, W10-18mm, face dark, circular patch of black on thorax, T1 yellow, T3 & T4 with all black hair)

12B. Little or no yellow on abdomen, butt end usually light colored (white to gray).....**B. occidentalis**—**Western BB** (highly variable, image and key describes most WA bees; face hairs black, T1 always black, T2 all black or with a yellow border, T3 usually black, T5 & 6 usually with pale hairs)

13A. Abdomen predominantly yellow.....14

13B. Abdomen a clear mix of yellow and black.....15

14A. Thorax all yellow, black absent..... **B. morrisonii**—**Yellow BB** unlikely in the Methow, T1 & T2 yellow, T3 mostly yellow, T4 black)

14B. Some black on thorax, at least at center..... **B. fervidus**—**Golden BB** (Q22mm, W12.5mm, long-tongued, facial hair usually black, T1-4 yellow, T5 always black), **B. nevadensis** (facial hair dark or a mix of dark & light, T3 completely yellow)

15A. More black on the proximal end of the abdomen than on the distal end..... **B. bifarius1 bifarius**—**Double BB** (facial hair usually light or a mix of light & dark, usually a V-shaped black-hair notch on thorax)

15B. More black on the distal end of the abdomen than on the proximal end.....16

16A. Distal half of abdomen solid black..... **B. vegans**—**Wandering BB** (Q14.5-19mm, W6-15.5mm, long-tongued, T3 hair black, yellow coloration usually dull)

16B. Distal half of abdomen black and yellow.....**B. balteatus**—**Mountain BB** (a boreal & mountain species, may not be in the Methow, Q22mm, W14mm, facial hair black, T1 & T2 yellow, T3 black, T4 & T5 variable, rufescent to yellow to whitish), **B. flavifrons dimidiatus**—**Yellow-fronted BB** (facial hair yellow, T5 & T6 with predominantly black hair), **B. mixtus**—**Variable BB** (facial hair mostly yellow, T2 with yellow hair at least centrally bordered by black, T3 usually black, T4 usually with light hairs, T5 & T6 with reddish or brownish white hair), **B. sitkensis**—**Sitka BB** (face with a mixture of pale and black hairs, giving a clouded appearance, T2 predominately yellow, T3 & T4 black, T5 & T6 with predominantly pale hair)

