

# Backyard Guide to Common Bees in Denver

## Extra Large Bees (Around 1 inch long or more)



### Nevada Bumble Bee (*Bombus nevadensis*)

**Description**- One of the largest bumble bees in Colorado. The upper portion of the thorax is yellow with a black spot in the middle. On the abdomen, the first 3 segments have yellow bands.

**Size**- “Walnut” (Around 1 inch or more) **Season**- April - September, mostly May - July **Nesting**- Social bees; nest in rodent burrows, tree cavities, or leaf piles

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Did you know bumble bees are the only **warm-blooded** insect? Since they can regulate their own body temperature and generate heat, they are **endothermic**.

**Bumble bees** are social insects. Future queens overwinter by burrowing in the ground. In the spring, she begins laying eggs. These eggs hatch to become **female** workers that collect nectar and pollen for the colony. **Male** eggs hatch near the end of summer.

## Large Bees (Around 3/4 inch long)



### Hunt's Bumble Bee (*Bombus huntii*)

**Description**- This striking bumble bee has two distinctive red-orange stripes on the second and third segment of the abdomen.

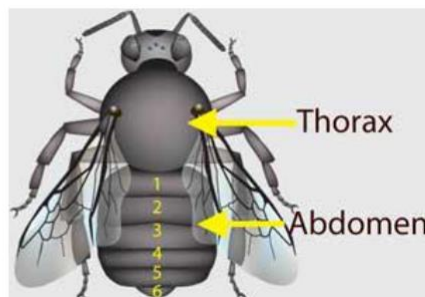
**Size**- “Popcorn” (3/4 inch)

**Season**- April – October, mostly May & June

**Nesting**- Social bees; nest in rodent burrows, tree cavities, or leaf piles

Image ©2017 Camia Lowman with Urban Harvest, Inc.

**Female** bees have an **even** number of antennae segments, while **male** bees have an **odd** number. Of course, you probably need a microscope to be able to count them! It is easier to look for **hairs** covered in **pollen** on the legs or underside of the abdomen. **Only females collect pollen.**



From Xerces Society's Bee Identification Guide

## Medium Bees (Around ½ inch long)

### European Honey Bee (*Apis mellifera*)



#### **NOT NATIVE**

**Description-** The most well-known bee. Honey bees have brown and black stripes on their abdomen. The abdomen tapers towards the thorax, and hair covering eyes suggest “long lashes”. Unlike other bees, honey bees often dangle their legs down as they fly.

**Size-** “Jelly Bean” (1/2 inch)

**Season-** Year-Round

**Nesting-** Social, living in hives

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**Honey bees** are not native to the western hemisphere, but their value for producing **honey** and **wax** led to their introduction by **European colonists** in the 1600’s.

The **European Honey Bee** is the only bee whose **stinger** comes **loose** when they sting.

### Leafcutter Bee (Genus *Megachile*)

**Description-** Very marked abdominal segments with scopae (*pollen-collecting hairs*) on the underside. In females, this hairy belly is often loaded with pollen for their nests.

**Size-** “Jelly Bean” (1/2 inch)

**Season-** May – Sept

**Nesting-** Cavity-dwelling, lining nests with leaf cuttings



The posture of leafcutter bees is unique - they bend their abdomen upward when they are resting.



Males often have large “**love mitts**” on their front legs, which the male uses to cover the eyes of the female during mating.

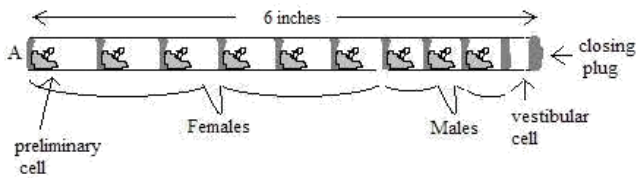


Female leafcutter bees have abdomens covered in pollen. Only female bees collect pollen.

Images ©2017 Camia Lowman with Urban Harvest, Inc.

**Leafcutter Bees** use their mandibles (*jaws*) to **snip** pieces of leaves and **carry** them back to their nests to use as wallpaper. Talk about an interior decorator! Leafcutters often prefer plants with **antimicrobial chemicals**, such as **rose plants**.

**Megachile** means “**big-lipped family**”, referring to the **enormous mandibles** (*jaws*) with heavy-duty teeth for **cutting leaves**.



Adapted from Xerces Society

**Bee blocks** are a great way to create **nesting** homes for **leafcutter bees**. Make sure holes are drilled **6 inches** deep to encourage development of **female** bees. Mother leafcutters place female eggs **deep** and male eggs **closer** to the entrance.

## Medium Bees (Around ½ inch long) Continued



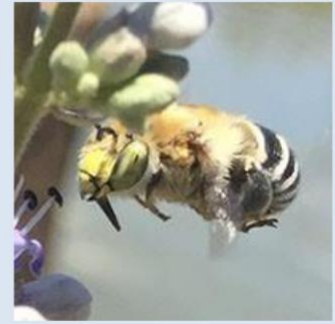
### Digger Bee (Genus *Anthophora*)

**Description**- Very **hirsute** (*hairy*), usually slate grey, with striking black and white banded abdomen.

**Size**- “Jelly Bean” (1/2 inch)

**Season**- April - August

**Nesting**- Ground-dwelling bees



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### Cuckoo Bee

**Description**- Abdomen is **cone-shaped** and **pointed**, ending in spines in males. There are **few hairs** on the body since this bee does not collect pollen, instead parasitizing solitary bee nests.

**Size**- “Jelly Bean” (1/2 inch) **Season**- June – Sept

**Nesting**- **Cleptoparasitic** (*parasitism by theft*) on solitary bees



This digger bee cuckoo (*Xeromelecta*)

**cleptoparasitizes** ground-dwelling digger bees

Image ©2017 Camia Lowman with Urban Harvest, Inc.



*Triepeolus* cuckoo bees have a signature “**smiley face**” on the back of their thorax.

Image © Lauren Simpson at St. Julian's Crossing - Wildlife Habitat



Cuckoo Leafcutter Bees (genus *Coelioxys*) **cleptoparasitize** leafcutter bee nests

Image ©2016 Camia Lowman with Urban Harvest, Inc.

**Coelioxys** is Greek for “**sharp-belly**”, a reference to this bee’s **pointed abdomen**.

**Cuckoo bees** use their **pointy abdomen** to break a hole into leaf nest walls of leafcutter bees. They lay an egg inside, and when it hatches, the baby **cuckoo bee** uses its sharp **mandibles** (*jaws*) to snip the host egg in half, so that it can eat the food the **leafcutter bee’s** mother stored for it.





**70%** of bees nest in the **ground**.



Julian's Crossing - Wildlife Habitat  
Image ©Lauren Simpson at St.  
*out from her nest Female  
Sweat Bee peeking*

Bees **cannot** nest if there is **mulch**.

## Small Bees (Around 1/3 inch long)



### **Metallic Green Sweat Bee** (Genus *Augochlorella* & *Agapostemon*)

**Description**- Most females are completely green, while some males have yellow and black stripes on the abdomen.

**Size**- "Pea" (1/3 inch)

**Season**- May - September

**Nesting**- Ground-dwelling

Image ©2016 Camia Lowman with Urban Harvest, Inc.



### **Long Horned Bee (Genus *Eucera*)**

**Description**- Pale brown hairs on thorax and banded abdomen. Females have scopae (*pollen-collecting hairs*) on their hind legs, while males have noticeably long antennae.

**Size**- "Pea" (1/3 inch)

**Season**- June - Sept

**Nesting**- Ground-dwelling (preferring sand or clay soils)

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## Tiny Bees (Around ¼ inch long or less)



### Sweat Bee (Genus *Lasioglossum*)

**Description**- Very small and ranging in color from all black to gray to brown. Females carry pollen on scopae (*pollen-collecting hairs*) on their hind legs. Often mistaken for gnats or flies.

**Size**- “Grain of Rice” (1/4 inch or less)

**Season**- May - Sept

**Nesting**- Ground-dwelling

Image ©Camia Lowman with Urban Harvest, Inc.

## Common Flower Visitors That Are

# NOT Bees



### Bee Fly (Family *Bombyliidae*)

Image © Lauren Simpson at St. Julian's Crossing - Wildlife Habitat



### Western Yellowjacket (*Vespula pensylvanica*)

Estimated to account for 90% of “bee stings” in Colorado

Image © Colorado State University – Extension.



### American Hover Fly (*Eupeodes americanus*)

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