

# Backyard Guide to Common Bees in Houston

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



### American Bumble Bee (*Bombus pensylvanicus*)

**Description**- The main bumble bee living in this area. The upper portion of the thorax has a yellow band and the remainder is black. On the abdomen, the first 2-4 segments have yellow bands. Males tend to have more yellow bands on the abdomen.

**Size**- “Walnut” (Around 1 inch or more)

**Season** - Late emerging, mostly May - Oct

**Nesting** - Ground-dwelling, social bees

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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**.

Having trouble distinguishing bumble bees and carpenter bees? **Bumble bees** have a hairy thorax AND abdomen. **Carpenter bees** have a hairy thorax, but shiny abdomen. So “**if it’s shiny on the hiney, it’s a carpenter**”.



*Female (top) and male (right)*



### Southern Carpenter Bee (*Xylocopa micans*)

**Description**- Southern carpenters have a large, black hairless abdomen with a yellow ring of hair on the thorax. Their abdomen is deep purple (In contrast to Eastern carpenters which have a black abdomen). Males have distinctive large, greenish yellow eyes.

**Size**- “Walnut” (Around 1 inch or more)

**Season** - Mar - Sept

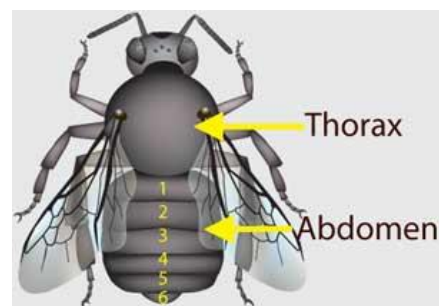
**Nesting** - Cavity-dwelling, usually in wood

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## Large Bees (Around ¾ inch long)

**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



### Horsefly-like Carpenter Bee (*Xylocopa tabaniformis parkinsoniae*)

**Description**- This fast-moving carpenter bee has four distinctive “racing stripes” on the lateral portions of the abdomen.

**Size**- “Popcorn” (¾ inch)

**Season** - Mar - Aug

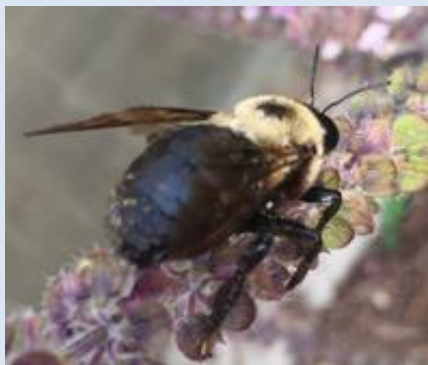
**Nesting** - Cavity-dwelling, usually in wood

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**Carpenter bees** get their name because they often nest in **wood**. Females use their strong **mandibles** to chew a round hole in wood. They do not eat the wood, but shove it out or use it to make walls between nest cells.

**Xylocopa** is Greek for “**wood-worker**”, referring to this bee’s ability to make homes in wood



### Eastern Carpenter Bee (*Xylocopa virginica*)

**Description**- Eastern carpenters have a large, black shiny abdomen with a yellow ring of hair on the thorax. Males have a yellow/white face.

**Size**- “Popcorn” (¾ inch or more)

**Season** - Mar - Aug

**Nesting** - Cavity-dwelling, usually in wood (conifers are preferred)

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## Medium Bees (Around ½ inch long)



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

#### NOT NATIVE

**Description**- The most well-known bee with brown and black stripes on abdomen. The abdomen tapers towards 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** aren't native to the western hemisphere, but their value for producing **honey** and **wax** led to their introduction by early **European colonists** in the 1600's.

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



### Leafcutter Bee (Genus *Megachile*)

**Description**- Very marked abdominal segments with a very hairy underside. In females, this hairy belly is often loaded with pollen. The posture of leafcutter bees is very unique - they bend their abdomen upward when they are resting.

**Size**- “Jelly Bean” (1/2 inch)

**Season** - May - Sept

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

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**Leafcutter Bees** use their mandibles 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**.

## Medium Bees (Around ½ inch long) Continued



### Carpenter Mimic Leafcutter Bee (*Megachile xylocopoides*)

**Description**- A very dark leafcutter resembling a carpenter bee, especially the purplish Southern Carpenter Bee.

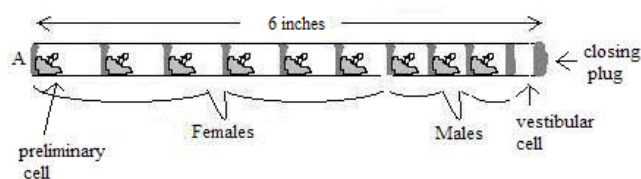
**Size**- “Jelly Bean” (1/2 inch)

**Season** - Mar - Nov

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

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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.



### Cuckoo Leafcutter Bee (Genus *Coelioxys*)

**Description**- Abdomen is cone-shaped and pointed, ending in spines in males. There are no hairs since this bee does not collect pollen, instead parasitizing leafcutter bee nests.

**Size**- “Jelly Bean” (1/2 inch)

**Season** - June - Sept

**Nesting** - Cleptoparasitic on leafcutter bees

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**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 it uses sharp **mandibles** to snip the host egg in half and eats the food its mother stored for it.

**Cleptoparasite** - “parasitism by theft”.

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



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

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

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

**Season** - Mar - Nov

**Nesting** - Ground-dwelling

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

**Description**- Pale brown hairs on thorax and banded abdomen. Females have scopa (pollen-collecting hairs) on its 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 1/4 inch long or less)



### Sweat Bee (Genus *Lasioglossum*)

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

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

**Season** - Mar - Sept

**Nesting** - Ground-dwelling

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