

Common Native Backyard Bees

by Danae Wolfe

IN OUR last article, we introduced the bee basics. In this issue, we're digging a bit deeper to cover some of the most common types of native bees you are likely to see.

While we often think of humid tropical regions as supporting the greatest insect biodiversity, native bee diversity is actually greatest in warm, temperate dry regions. You might be surprised to discover that the semi-arid and arid states of the southwestern United States boast some of the highest concentrations of bee diversity anywhere in world.

With mostly dry ground and little rain, the deserts of California, Nevada, Utah, Arizona, and New Mexico offer the ideal environmental conditions for ground-nesting bees to thrive. Since 70 percent of native bees in the U.S. are ground nesting, the desert is a great place to encounter them.

Whether you live in the arid west or the humid east, however, a wide variety of bees will visit your landscape, especially if you're actively gardening with them in mind. From the smallest sweat bees to our largest bumblebees, there's enough buzz for everyone to enjoy. Here are some of the bees you might discover in and around your yard this year.

MASON BEES

Mason bees (*Osmia* spp.) are most common in the western United States, with only 27 of North America's 150 species living east of the Mississippi. These solitary bees range in size from 0.2 to 0.8 inches and most have bright metallic green or metallic blue bodies. Unlike honey bees, which have a fertile queen bee, all female mason bees are fertile, building nests in cavities found in dead wood or hollow plant stems, though they will also construct nests in artificial sites like bundled bamboo or wood blocks



Above: Leafcutter bees use their strong jaws to cut pieces from leaves and flower petals for use as nesting material. **Right:** The perfectly rounded notches on the edges of these redbud leaves are evidence of their presence.



with drilled cavities. Some species—like the brilliant blue orchard bee—use mud to build walls between brood cells in nests, while others use chewed up leaves.

LEAFCUTTER BEES

Leafcutter bees (*Megachile* spp.) are medium to large bees that range in size from 0.4 to 0.8 inches long. They have stout black bodies with flattened abdomens that have bands of pale hairs on top and long hairs



Mason bees are small but efficient pollinators thanks to their hairy bodies.

called scopa underneath. Leafcutter bees carry pollen on the underside of their abdomen (rather than their legs like many other bees), making their abdomen appear bright yellow or gold after a day of visiting garden blooms. All species are solitary, constructing nests in existing cavities like hollow plant stems or abandoned beetle tunnels using pieces of leaves or flower petals they cut with their strong mandibles. The distinctive holes created by leafcutter bees are perfectly rounded, often similarly sized, and are restricted to the leaf or petal margins. Leafcutter bee damage is only cosmetic and should not be cause for concern, but rather a welcome sign of this pollinator's presence in your garden.

SWEAT BEES

Sweat bees (family Halictidae) are perhaps most well-known for their showy metallic colors, but, in fact, most species in this family are less conspicuous, being black or brown. They can be quite tiny, with the smallest species growing to only a few millimeters in length. These bees are so named



While many species of sweat bee are brown or black, some are brilliantly colored like this metallic green *Agapostemon* species.

for their attraction to perspiration—which you may have discovered when you’re out weeding the garden. Nesting behavior varies depending on the species, but most are ground nesters while others prefer rotting wood. As for social behavior, many sweat bees are solitary, while some are semi-social and others communal.

LONG-HORNED BEES

Long-horned bees (*Melissodes* spp.) are small to medium size, ranging from 0.3 to 0.7 inches. They have robust and hairy bodies, conspicuously hairy hind legs, and—in most species—long antennae. While many long-horned bees have a foraging preference for aster family spe-



Like honey bees, bumblebees moisten pollen before packing it into pollen baskets on their hindlegs.

cies—including sunflowers, asters, and daisies—others are considered generalists. All long-horned bees nest in the ground where they construct and provision individual brood cells for their offspring.

BUMBLEBEES

Bumblebees (*Bombus* spp.) are large and robust, with hairy bodies and bands of hairs that vary in color from yellow, orange, white, black, or brown depending on the species. Unlike most bees, which collect dry pollen, bumblebees (like honey bees) moisten pollen with nectar to make it sticky before packing it into the hairs on their hindlegs, which are called pollen baskets or corbicula. And unlike most other native bees, bumblebees are social insects, nesting in colonies underground. Each fall, most bumblebees die, leaving mated queen bees to hibernate over the winter months. In the spring, large queen bumblebees emerge from their underground slumber to begin foraging and building a new colony. Once she successfully rears her first brood, the new workers will take over foraging duties, leaving the queen to lay eggs as she continues to grow her colony.

HOW TO HELP BEES

Want to help protect bees? Plant more native flowering plants! But don’t stop

Resources

Attracting Native Pollinators: The Xerces Society Guide, Protecting North America’s Bees and Butterflies by The Xerces Society. Storey Publishing, LLC, 2011.

The Bees in Your Backyard: A Guide to North America’s Bees by Joseph S. Wilson and Olivia Messinger Carril. Princeton University Press, 2015.

IS IT A BUMBLEBEE OR CARPENTER BEE?

Bumblebees and carpenter bees are often mistaken for one another and for good reason. Depending on the species, both can be about the same size with similar coloration. Need a sure way



to tell the difference? Carpenter bees have a shiny abdomen and behind, as shown in this photo, whereas bumblebees are covered with hair. —D.W.

there. Planting native flowers, shrubs, and trees will certainly provide the needed forage to sustain our native bees, but we must also consider how to support them throughout their entire life cycles. One of the best ways to do this is leaving bare spots in the yard or letting dried, brown stems remain in your flower beds. These “lazy landscaper” gardening techniques provide the nesting sites the bees need to thrive—and they allow you more time to relax!

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