



Giant Resin Bee

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Description

Giant resin bees (*Megachile sculpturalis* Smith, Hymenoptera: Megachilidae) are large insects (about 19 mm or 0.75") with a cylindrical body and stout jaws (Fig. 1). They have a dark head and abdomen with yellow-brown hair on the face, thorax, and the first segment of the abdomen behind the "waist." The wings are a transparent brown color that darkens toward the tips. Male giant resin bees have a truncated, squared abdomen while the females have a more tapered, pointed abdomen. Giant resin bees can be distinguished from bumblebees and carpenter bees by their cylindrical bodies and the appearance of their abdomens. Their abdomens have ridged bands with a textured surface (Fig. 1), but giant resin bees do not have hairy abdomens like bumblebees or shiny abdomens like carpenter bees.



Figure 1. Giant resin bee (Dave Cappaert, Bugwood.org).

Habitat

Giant resin bees nest in standing dead wood, but they also can be found around decks, porches, and other wooden structures where the females make their nests in and between wooden boards. They are also seen foraging for pollen on flowering plants (Figs. 1 & 2). Female giant resin bees use their large jaws to collect resin from trees; thus, their common

name "giant resin bee." These are solitary bees that do not form colonies, although several females may build their nests together in the same area.

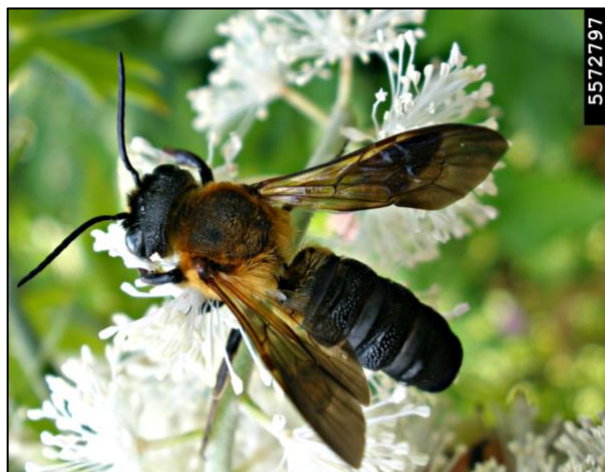


Figure 2. Giant resin bee (Ansel Oommen, Bugwood.org).

Life Cycle

During the summer, females construct individual brood cells in an existing tube or cavity using wood particles, mud, and tree resin. The female provisions each brood cell with pollen that she collects and carries on the underside of her abdomen. She forms the pollen into a ball and lays a single egg on it inside the cell before closing the cell. Brood cells are often capped with resin, mud, and wood fibers. The female will continue to construct other brood cells, often completing as many as eight or ten. The larva hatches from the egg and spends the winter inside the cell. After consuming the pollen ball, the larva pupates in the spring and emerges from the cell as an adult in early summer.

Damage

Despite their large jaws, giant resin bees do not bore holes into wood. They use available holes made by carpenter bees or other insects and do not enlarge existing holes or further damage the wood. Females

will also build their nests in small crevices between wooden boards or use tunnels in woody debris.

Control

Chemical control is usually not recommended for giant resin bees, but if desired, locating and destroying each nesting hole will limit their population. Because giant resin bees cannot make their own nesting holes, control is based on discouraging carpenter bees from nesting in wood by painting the surface of the wood. Existing carpenter bee holes can be filled with wood putty, which makes them unattractive to giant resin bees. If there are no nesting holes in the area, female giant resin bees should relocate to a different area where nesting holes are more accessible.

Interesting Facts

Giant resin bees are native to Asia. They probably arrived in the United States through commercial trade using wood packaging that contained their nests. They were first identified in North Carolina in 1994 and have since spread throughout the southeastern United States. Given their large size and dark coloration, giant resin bees may appear threatening, but they are actually quite harmless. The females are capable of stinging, but they seem to prefer flying away rather than attacking humans. Giant resin bees are a different species than the Africanized "killer" bee, so there is no chance that the two species will interbreed.

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