

# Oregon Berry Bee *Osmia aglaia* (Oz-me-uh ah-gl-lay-uh)

## GENERAL NOTES:

- *Osmia aglaia* are native to western Oregon and northern California. *O. aglaia* are from regions of California and Oregon west of the crests of the Sierra Nevada and Cascade Mountain ranges (Cane et al. 2009).
- **Phenology** Adults are active for less than a month in spring, about the time when cultivated *Rubus* species flower. Development is completed in summer but adults do not emerge until spring.
- *O. aglaia*, informally known as the Oregon berry bee, is a small, metallic green or blue spring flying bee. *Osmia aglaia* is a small about 3/8-inch long.
- Is found in western Oregon and Northern California foraging on Himalayan Blackberry. Cane has shown that *O. aglaia* is an efficient pollinator of raspberries and blackberries. He believes it “could be a sustainably managed, economical bee for cultivated cane fruits.” (HortScience 40(6)1705-1708, 2005).
- *O. aglaia* is related to the blue orchard bee, *O. lignaria*, which has become a popular pollinator of tree fruit in the Northwest. Both species are solitary, meaning that each female makes her own nest, forages for pollen and nectar, and lays her own eggs; there are no queens or worker castes as in Honey bees. Both species make nests in tunnels in wood, so their populations can be managed by providing artificial tunnels near abundant flower sources. They have a docile temperament, and do not defend their nests as honey bees do, so managing their populations poses negligible risk of being stung.
- Their flight period is about July to Sept but they can be found on warm June and October days.
- Oregon berry bees are proving to be most useful for later blooming berry varieties. Most active at warmer temperatures, not very active during cool, rainy weather.
- The adult bees are active in the late spring just when the berries are blooming. The female lays her eggs in a wooden tunnel about 1/4-inch or 5/16 in diameter (the common size used for Mason Bees) and provisions the nest with pollen and nectar collected from the berry flowers.
- Cultivated red raspberries and blackberries are generally self-fertile plants, which means they can produce fruit without the aid of pollinators. But the fruits grow fuller and more robust in the presence of pollinators. In fact, James Cane of the USDA has found that red raspberries may be as much as 30% larger if they have been pollinated by bees—either wild bees or honey bees.
- Experiments are underway to see if *Osmia aglaia* will live further north in the berry-growing regions of western Washington.
- Although this species has a limited natural range along the US Pacific Coast, it is not rare, does not have particularly specialized nesting requirements or habitat needs as far as known. It can use a variety of flowers. It will use artificial nest substrates, as do many *Osmia*. It occurs naturally in agricultural areas where there are suitable nesting areas such as feral bramble thickets or other unplowed vegetation around fields. This species is easily reared and shows good potential as a sustainably reared pollinator of blackberry and raspberry (Cane, 2007, 2008, 2009). This species is not now imperiled and could become more common if it does become a commercially sustainable pollinator without seriously impacting wild sources. However, that is for now speculative.

## Hosts List Family/Scientific name

*Rubus* varieties

*Ericaceae*

*Arctostaphylos* sp

*Fabaceae*

*Acmispon nevadensis*

*Lathyrus* sp

*Lotus nevadensis*

*Lotus* sp

*Hydrophyllaceae*

*Eriodictyon* sp

*Nama rothrockii*

*Phacelia imbricata*

*Phacelia ramosissima*

*Phacelia* sp

*Pholistoma auritum*

*Lamiaceae*

*Salvia* sp

*Scrophulariaceae*

*Collinsia heterophylla*

*Penstemon bridgesii*

*Penstemon heterophyllus*

*Penstemon* sp