

Montana  Pollinator
Education Project

Alkali Bee



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solitary nester

Alkali Bees - *Nomia* spp.

Genus: *Nomia* Family: Halictidae

Hairless, with opalescent bands on abdomen

7-15 mm long

9 species of *Nomia*,

mainly in the western U.S.



Alkali bees get their name from the alkaline soils they nest in. Alkali bees are workhorses when it comes to pollinating.

These little bees are highly in demand by farmers who grow alfalfa, alfalfa growers actually create suitable nesting areas for alkali bees just to encourage them to nest in the alfalfa field area. This is done by excavating the soil and preparing the new bed with the right saltiness and moisture for the alkali bee.

Female alkali bees can pollinate up to 2000 alfalfa flowers per day. This workhorse of a bee makes a big impact upon the economic value of alfalfa seed. The bee pollinates alfalfa flowers for an estimated 4 million pounds of alfalfa seed annually which makes a 5 billion dollar impact in alfalfa seed production.

Alkali bees pollinate legumes; alfalfa is part of the legume family and so are peas, beans, lentils, peanuts, sweet clover, and licorice. One legume flower part on the lower section of the flower is called the keel. The keel snaps up and slaps bees when they try to gather the pollen from alfalfa flowers; flowers must snap in order for the pollen to be released. Alkali bees are able to divert the snap (sometimes called tripping) and gather the pollen.



Honey bees avoid alfalfa as they do not like the slap, they do however visit alfalfa flowers for their nectar and have found a way to get the nectar without tripping the flower. This results in only about 1 percent of the alfalfa flowers being pollinated by honeybees.