

Megachild Bee visiting Milkweed

Photo and story by Lesley Hamamoto

In spring of 2020 when we were in Covid lockdown, I was spending a lot of time de-stressing in my Sacramento garden by looking at plants, birds, and insects. This photograph of a megachilid bee visiting showy milkweed was taken during that time. Megachilidae is the family of bees that includes leaf cutters and mason bees. They can be distinguished from other types of bees by the fact that they collect pollen on a hairy patch on their abdomen, called a scopa. This is distinct from other bees you may have noticed, like honeybees and bumble bees that collect pollen in pollen baskets, called corbicula, on their hind legs. Despite this bee's scopa being full of pollen, it is actually visiting the showy milkweed for nectar, not pollen.



Unlike most flowers, milkweeds (as well as other plants in the family Apocynacea) don't shed loose pollen that can be collected for feeding to young bee larvae, but rather have pollen packed in two waxy sacs that are attached on a special structure called a pollinarium, that looks a bit like a tiny wishbone. If a visiting insect accidentally bumps the pollinarium, there is a sticky pad on the structure that can attach to the insect's leg or other part of its body. The entire pollinarium is then carried off by the insect until it hopefully forages on another flower of the same species. The pollinarium is transferred, resulting in pollination, if the pollen sac gets trapped in another specialized structure on the flower called a stigmatic slit. If this happens, the unlucky bee must break free from the sticky pollinarium or risk being trapped itself. It's a high price to pay for a little sip of sweet nectar!



<https://en.wikipedia.org/wiki/Megachilidae>