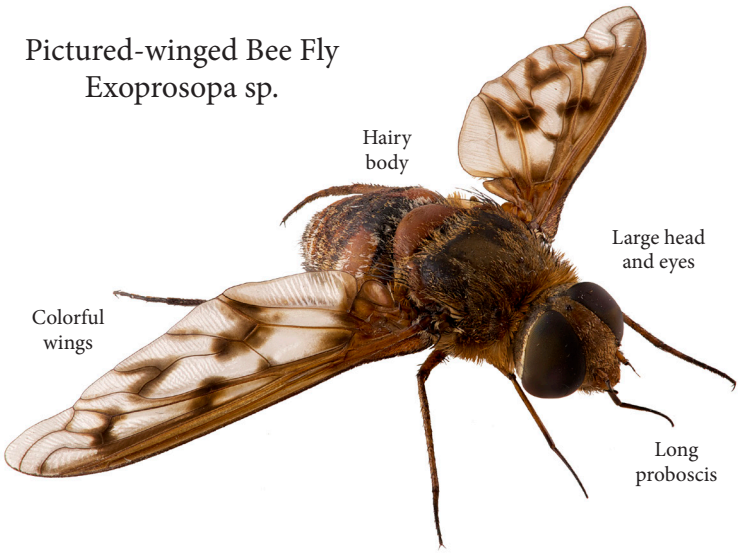
Bee Flies

Status
☑ Beneficial pollinator
☑ No health threat

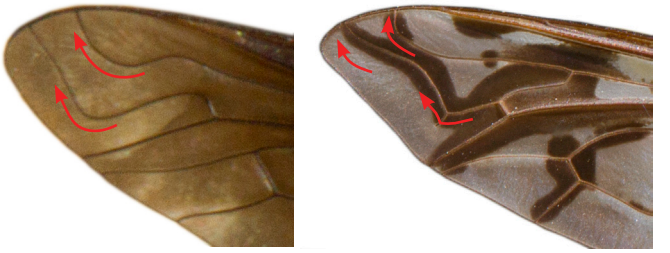
Pictured-winged Bee Fly
Exoprosopa sp.



Bee Flies

One of the largest fly families, the bee fly family has more than 5,000 species in the world, about 900 from North America, over 200 from California. They range in size from very small and slender to very large and stout flies (body length 1-20 mm, wingspan 3-40 mm). Bee flies are easily identified by their very hairy body and bold patterns on their wings; the two veins that touch the wing tips have a sharp upward bend. They often perch with their wings held out and back at an angle like the letter "V", a good opportunity to observe and photograph them.

Wing-tip veins bend sharply upward



Photos by Bob Allen

Are They Bees?

Because of their bee-like body, buzzing sound, and habit of visiting flowers, bee flies are often mistaken for bees. As with all flies, bee flies have only two wings; bees have four wings. Bee fly mouthparts are modified into a tube through which they sip nectar; bees have a pair of biting mandibles and a tongue for lapping nectar. Bee flies have very short bristle-like antennae; bees have long stout segmented antennae. Bee flies cannot bite, nor do they have a stinger; bees can bite and female bees have a stinger. Adult bee flies and bees feed on nectar and pollen, incidentally transferring pollen (pollinating) making them important in the reproduction of many types of plants.

Life Cycle

Bee flies have four stages in their life cycle: egg, larva, pupa, and adult. Adult females lay eggs in or near burrows of host insects such as beetles, wasps, and bees. A few days later, larvae hatch from the eggs and feed on the food left for larvae of the host insect and on the host insects themselves. As bee fly larvae eat and mature, they outgrow their skin, grow a new skin layer beneath it, and shed the old one, a process called molting. Following each molt, the larvae are a little larger. After several growth-molt cycles, the larva forms a special skin (pupal skin) beneath and sheds the old one, revealing the pupal skin (pupal stage). After weeks or months of development, the adult bee fly emerges from the pupal case. The process of changing body forms while maturing is called metamorphosis.

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