

In My Backyard Cow Killers Wingless Wasp of the Wilderness



Although I haven't seen many cow killers in my 27 years at Sanderson, they often ran riot in Marathon where I was raised. I was always fascinated by them but I soon learned to steer clear because they carry a wicked stinger under their tail and can inflict a painful sting. That's the story of my life in West Texas: everything bites, stings or pinches...cute, but definitely not cuddly.

Resembling an extra large ant covered with yellow bristles, in the Trans Pecos they are known as Yellow Velvet Ants (*Dasymutilla occidentalis*). In the eastern half of Texas their coloration is more reddish and they are called Red Velvet Ants. Cow killers, our common name for them, are not ants at



Photo: Bugguide.net: - Aaron Goodwin

Unspecified Male Cow Killer

all, but solitary wasps. The females are wingless, very hairy and scurry along the ground, almost in constant motion. The males have almost no bristles and sport wings, making them look like regular wasps with their black and yellow markings and clear wings.

Cow killers begin life when the males mate with the females, usually on the ground since the females don't fly, but in some species the male carries the female aloft and mating occurs in the air. The males do not carry stingers...only the female has a stinger, and it is quite a large weapon, kept curled under its tail. The female's stinger is actually an egg-laying structure (ovipositor) adapted to deliver an injection of paralyzing toxin into its intended prey. The female preys on bumblebees by digging into their nests, which are usually burrows in the ground, and laying an egg near the bumblebee's eggs or inside the pupa of a develop-



Photo: healthcure.org

Blue velvet ant



Photo: Dreamtime - Dcvision

Unspecified Cow Killer showing the stinger, unfurled, but normally curled under the abdomen.

ing bumblebee baby. When the cow killer baby hatches into a grub it feeds on the bumblebee babies, completely devouring them. Eventually they become pupae and metamorphose into adults who break out of the burrow and begin their surface life. Other species are parasitic of wasp, bee, fly and beetle grubs.

As with all insects, cow killers carry their skeleton on the outside of the body and it is extremely dense and tough. Insect researchers have a problem piercing the body with pins to mount the specimen in their collections because of that tough exterior. And as a kid, I learned quickly that you couldn't just stomp on one and get rid of it...they just merely mashed down into the earth and got up and walked away unscathed.

Another interesting thing about cow killers is that they have hardened structures on their bodies that when rubbed together produce a squeaking noise, similar to the way crickets and grasshoppers make sounds. But, they only do this when riled or provoked.

Although the immature grubs are carnivorous, the adult cow killers feed only on plant nectar. Females may be seen during the day but they are mainly active in the evening near and just after sunset and at night, leading one researcher to theorize that their activity depends on a certain temperature range during the day.

Cow killers have a world-wide distribution and about 3,000 species have been identified. Even though we are most familiar with the yellow and black cow killer, there are over 400 described species found in the greater South-



Photo: female Gray Velvet Ant - *Dasymutilla gloriosa* - a mimic of creosote seeds.

Photo: bugguide.net - Kevin Williams.



Close-up of creosote seeds.

Photo: Flickr - Hadley Paul Garland

west, with many color and body adaptations.

So where does that name, cow killer, come from? Texas Agrilife Extension says it was probably a folk tradition because cow killers inflict a terrible sting. They think that not many cows have ever been killed by the little beastie, if any, but I am not going to find out. Like a lot of other creatures in our habitat I give it a wide berth or occasionally perform a catch-and-release policy for closer observation.

And, what's in your backyard?