

Discovery in Discovery Garden by Lloyd Eighme, retired entomologist

It was a warm sunny day in August when I was wandering through the MG Discovery Garden observing insect activity. A small plot of clean, dry sand appeared to be an attractive spot for insect activity. What were they finding there? They were too small for me to identify without seeing them through the microscope, so I collected a few specimens to study at my desk. There were several different kinds of flies, but I was delighted to discover that a small wasp was also using the sandy area for its nesting site. This was my first contact with this little one quarter inch long wasp Oxybelus ventralis in Skagit County. I doubt that it is rare here, but I had previously not happened to be at the right place at the right time to see it. My insect research for many years was focused on relatives of this little wasp and I had collected this same species in other places. It is a beneficial insect for the garden and adds one more aspect of integrated pest control.

No common name has been given to this little wasp. Maybe you can come up with one after I tell you what it is doing in the Discovery Garden. It is often seen flying around the blossoms of wild carrots, parsnips and other umbelliferous plants. It could be sipping a bit of nectar there to provide energy for its activities, but it is also there to capture its prey, small flies. It frequently captures root maggot flies, the adults of the worm-like larvae that chew holes in radishes and turnips. It has also been observed capturing mosquitoes and black flies, both of which bite people. The method by which it carries the captured fly to its nesting burrow in the sand has fascinated many entomologists. It grabs the unsuspecting fly either out of the air or from the surface of a leaf and immediately thrusts its stinger into the neck of the fly to paralyze it. Instead of carrying the fly in its legs, which would interfere with its rapid flight, the little wasp impales the fly on its stinger and tows it behind as it flies back to the sand plot.

Take a break from your work in the garden some day and sit by the sandy area to observe what is going on there. If you are fortunate enough to see this little wasp there before it goes after a fly, you will see it energetically digging a tunnel in the sand. It will stand on its head and make the sand fly with its feet. It will construct a burrow vertically into the sand about 3 inches deep. A small chamber at the bottom will be excavated to hold 5 or 6 flies. The first fly captured is dragged down to the chamber and one egg is fastened to it. The other flies are tucked in around it until the chamber is full. Sometimes another chamber will be dug adjacent to the first one or a new tunnel will be dug from the surface. Frequently several wasps will be nesting in the same spot of sand, but they neither assist or hinder each other. It is peaceful co-existence.

The egg hatches into a tiny grub which feeds on the flies in the room in the sand and then pupates in a cocoon where it will remain through the winter. It will emerge as an adult Oxybelus wasp next August and repeat the life cycle. You may see a pair of wasps, male and female, working together to construct the nest. Only the female is equipped with the sting that enables her to paralyze and transport the flies that are needed to provision the nest. These little wasps never occur in large numbers, but they are widespread and play an important role in the gardens and fields. I am pleased that they have chosen the Discovery Garden as a place to nest. Now, don't you dare hurt these little friends of mine.



Oxybelus ventralis discovered in the
Discovery Garden