

Cardinal Meadowhawk (*Sympetrum illotum*)

Description

The Cardinal Meadowhawk (*Sympetrum illotum*) is a common dragonfly seen perching on the ground or plant stems, especially near water. The male (Figure 1) has a bright red body and head, reminiscent of a cardinal's robe – hence its common name. Its wings also have a red blush. The thorax (middle section) is brownish with two white or yellow spots. The female (Figure 2), may also be red but she is a much drabber shade or may be orange.



Figure 1: The male Cardinal Meadowhawk has a bright red head and abdomen.

Keep in mind that most species of Meadowhawk are some shade of red, though not the brilliant red of the Cardinal. Other species have stripes on the thorax or no spots. The Cardinal will drop its wings below the thorax while perching, which can help in identification.

Feeding Behavior

Many dragonflies are “perchers”; their strategy is to find a perch and wait for prey. The Cardinal Meadowhawk is no exception. It will find a plant, twig, or other perch overhanging the water and watch for an insect to fly by. Then the Cardinal Meadowhawk flies up to catch the insect, with better than a 95% success rate. The Cardinal Meadowhawk will usually return to that perch or another one nearby. Contrast this feeding behavior with dragonfly “fliers”, like the Common Green Darner, which fly back and forth capturing prey, only rarely perching to deal with a captured large insect.



Figure 2: Females are a drabber red or orange.

Males feed mostly near water. Females tend to feed away from the water, but will usually come to the water source when ready to mate.

Reproduction

As with other dragonflies, mating is a rather dramatic affair. The male transfers his sperm to the base of his abdomen (rear section). Then he grasps a female by the neck with structures at the end of the abdomen. She swings her abdomen forward to collect his sperm and grasps his abdomen in the process. This position is known as a “mating wheel” with the female upside down. Surprisingly, this position does hinder their flight much.

After she has gathered sperm from the male, the female usually detaches to fly over the water to lay her eggs. She taps the water to release her eggs. The male may hover above the female to fend off other males while she deposits the eggs. Sometimes the male will keep hold of female while she lays her eggs.

After about a week, an aquatic nymph hatches from the egg. This voracious predator stalks insects, tadpoles, and small fish in the pond. To grow a nymph molts (sheds) its exoskeleton (hard skin) several times before reaching maturity.

Finally the nymph climbs out of the water on vegetation and molts one last time. The nymph pumps fluids into its wings to make them expand and stiffen. The emerging dragonfly must remain perched until its wings have dried, so it is vulnerable during this time.

Distribution

The Cardinal Meadowhawk lives from southern British Columbia down the west coast all the way to Chile and Argentina in South America. To the east it ranges into Idaho, Nevada, New Mexico, and Texas.

On the Refuge, look for the Cardinal Meadowhawk during the summer in wet areas, particularly along the ditch bordering the gravel road that parallels highway 99W. Even without binoculars you can usually pick out the male of this species by its distinctive bright red color.

Dennis Deck

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Fun Facts

- On hot days, the Cardinal becomes an acrobat—pointing its abdomen towards the sun to lower its body temperature by reducing its exposed surface area.
- The Cardinal often returns to the same perch over and over again.
- It is hard to sneak up on the Cardinal, like all dragonflies it can see almost 360 degrees.

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Dragonfly Resources

- Kerst, C. and Gordon, S. (2011). *Dragonflies and Damselflies of Oregon: A Field Guide*. Corvallis, Oregon: OSU Press
- Michel, F.L. and Lasswell, J.L. (2005). *A Dazzle of Dragonflies*. College Station, Texas: Texas A&M University Press
- Dragonflies and Damselflies of the Northwest and Beyond website: <http://odonata.bogfoot.net>
- Dragonflies of Oregon and Washington website: <http://dirttime.ws/Dragonfly/Dragonflies.htm>
- <http://thedragonflywhisperer.blogspot.com/2012/06/cardinal-meadowhawks-early-dragonfly.html>