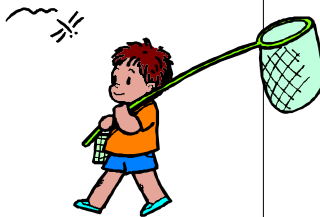


# Field Notes

Oak Hammock Marsh Interpretive Centre

May 2003

## Dragonfly Survey



The dragonfly survey is part of our daily public program and occurs Thursday afternoons during our Marshwalk. The survey is part of a program conducted by the Conservation Data Centre, and is being established across Manitoba. The surveys are done annually and the results are then compiled. Our weekly survey will run when dragonflies are active from mid-May to mid-September.

The survey is designed to inventory Manitoba's dragonflies and to identify habitats they use, as very little is known about them. Dragonflies are used as indicator species to assess habitat and water quality in a variety of wetlands around the world.

We have 5 different families of dragonflies here in Manitoba.

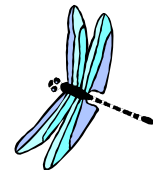
- Darners
- Clubtails
- Cruisers
- Emeralds
- Skimmers



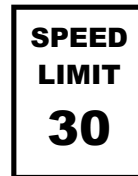
Come and join us on Thursday afternoons as we track down some dragonflies and help us identify what is around!

## Did you know?

That dragonflies were flying 300 millions years ago!



That dragonflies can fly at speeds of 25 to 35 km/hr.



That the nymphs use "jet propulsion" by contracting water out of the rectum to move through the water.



That they have huge eyes; each made up of thousands of tiny eyes packed together. They are capable of detecting movement up to 15m away.



# Field Notes

Oak Hammock Marsh Interpretive Centre

May 2003

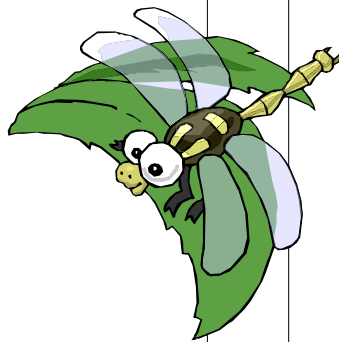


# D

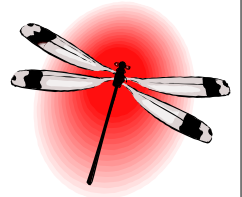
ragonflies and damselflies belong to the order Odonata ('odon' – meaning tooth, presence of sharp teeth and jaws). This is a very old order; fossils resembling current day dragonflies and damselflies date back 300 million years. There are presently 450 species in North America, of which, 89 species are known to occur in Manitoba (representing 6 families).

Dragonflies and damselflies are highly adapted predators. These large, slender insects are well equipped for hunting. They have large bulging compound eyes that cover a large portion of their heads. As well, their heads are highly moveable, they have powerful, biting mouthparts and 4 powerful wings that allow them to fly forwards and backwards. They are carnivores that eat almost any flying insect (moths, butterflies, midges, flies and mosquitoes).

They mate on the wing and the female lays her eggs in the water or on submerged substrates such as vegetation, rocks, and logs. The eggs hatch within a month and a nymph starts to develop. This stage may last up to 4 years and is completely aquatic. The nymphs are also voracious carnivores. When they are ready to transform into adults they crawl up onto some vegetation or onto the shore and their skins split open and the adults crawl out. The adults must dry out and pump blood into their wings. While this is happening they are very vulnerable to predators, mostly birds and this stage is often completed early in the morning before the birds are active. The adults leave behind this skin (exuvia). Adults normally survive for 2 to 8 weeks.



Dragonflies and damselflies overwinter as nymphs or eggs at the bottom of wetlands. In some species the adults survive the winter by migrating to warmer climates.



Dragonflies and damselflies are different in many ways.

### Dragonflies

- Their thorax is larger than their abdomen.
- Eyes nearly cover their head.
- The base of the hind wings is broader than the forewing.
- When at rest, the wings are held outspread.
- Generally larger than damselflies.
- Usually takes more than 1 year to complete lifecycle.

### Damselflies

- Their thorax is just as thick as the abdomen.
- Eyes project from the side of their heads.
- The base of the hind wings is the same size as the forewing.
- When at rest the wings are held parallel to the body or tilted upward.
- Generally smaller than dragonflies.
- Most complete their lifecycle in one year.

### **Are dragonflies beneficial to humans?**

You bet they are! In fact, dragonflies are sometimes called "mosquito hawks" because they catch and eat so many mosquitoes. Always on the hunt, dragonflies consume gnats, flies, and mosquitoes — all of which humans consider pests.

