

# Life in the Air

## Dragonfly Adults

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Out of the water, the dragonfly begins its final moult. The top of the larval skin splits open and the adult insect squeezes out. It pumps blood into its expanding wings and abdomen. Gradually, the body hardens. After an hour or two the dragonfly can fly, weakly at first, on fragile wings. An immature adult is pale in colour but gets darker and often brighter as they age. An adult dragonfly will not grow larger, even though it eats a lot.

Dragonflies are powerful predators that hunt by sight, capturing other insects by grabbing them with their long, spiny legs and then chewing the food with powerful jaws.

When they are old enough, dragonflies return to the water to breed. Most that you see near water are males aggressively searching for mates. In many species, males defend a territory against others of the same species, patrolling the habitat or flying out from perches. This behaviour reduces aggression by spacing males along the shore and decreases disturbance of egg-laying females.

Females fly to the water and quickly attract mates. With claspers at the tip of the abdomen, a male grasps a female by the front of the thorax (damselflies) or by the top of the head (true dragonflies). The female then loops the end of her abdomen up to the base of his, where sperm is transferred. The Odonata are the only insects that mate in this circular formation.



Pair of Striped Meadowhawk (*Sympetrum pallipes*) dragonflies mating (male left, female right). Photo: RBCM, G. Doerksen



Pair of Northern Spreadwing (*Lestes disjunctus*) damselflies. Male (above) is guarding female from other males. Female (below) is laying eggs in plant stem. Photo: RBCM, G. Doerksen

The female lays fertilized eggs by the hundreds. All damselflies and some true dragonflies have a knifelike egg-laying structure (ovipositor) at the tip of the abdomen. The eggs are usually inserted into plant material. Other species lacking ovipositors drop eggs into the water or tap them into mud and moss. BC dragonflies live only a short time as adults – about one to two months.