



The Dragons of Harrold-Odell Country Park

The tale of a ferocious predator

Article by Jaimie Barnes

Every year, starting in late April, a monster lurks in the depths of the water ready to transform. This alien-like insect (ironically named a damselfly) will soon come to resemble its namesake. Slowly, in the early hours of the morning, a trek up the stem of a reed begins. At a point just right, catching the rays of the sun, it begins its transformation.

CRACK! A small split in its thorax forms. Through the hole in the nymph's back, a new form of life is born. In colours of vibrant blue to deep red, the dainty damselfly emerges and pulls itself into adulthood. The only thing left behind from its childhood being the husk of the naiad (aquatic nymph) known as an exuvia. Exuvia can be collected on reeds where dragonflies and damselflies have emerged in the country park. They are a valuable resource for population surveys.

The damselfly emerges earlier than its cousin, the dragonfly, which will begin its emergence in the next month. This head start means it can hunt and breed before being out competed or even eaten by its fellow dragonflies. Hovering like a helicopter (which it was the inspiration for) the damselfly watches its prey. The small flies that dart around are a key food source that gives the damselfly much needed energy. A quick dart forward; a fly is caught and eaten on a perch.



Three dragonfly exuvia (left behind from the nymphs)

Fast forwarding a few weeks and out from the depths of the Harrold-Odell Country Park lakes come much larger, more menacing creatures. The black tailed skimmer is among the first of the dragons to show but unlike their hovering cousins, they are a much more dynamic animal. Zipping down the edge of their territory they scan for potential prey with anything small and slow enough being on the menu (including a damsel or two). It is now that the namesake of these creatures becomes obvious. Their fast paced hunting style topped with their focused and acute vision allow for these ferocious predators to have an accuracy of up to 95% and reach speeds of 30 mph or more. Their aerial acrobatics make them easily distinguishable from their daintier counter parts (hence the name damselfly).

As the skimmers rest on the edges of the lake or pond they have claimed their territory, they soak up the sun's rays thus increasing their metabolism and allowing them to gain access to their energy much faster. However, this means they have to constantly hunt to keep replacing the energy used.



A large red damselfly. They are common in the late spring and can be seen at the Harrold-Odell Country Park.

All of this work done by dragons and damsels may seem pointless but you would be wrong to think that. They do all of this hunting and flying with one goal in mind, pairing with another of their kind. Damselflies and dragonflies engage in the middle of flight. The males have special claspers at the end of their abdomen with which they grip the female. They form a wheel shape as the female arches her abdomen under the male. At this point they usually land and copulation takes place.

Afterwards, the pair will disengage and the female will lay her eggs. The male usually guards her avidly (it depends on the species); alternatively, the male places his claspers around her to prevent other males mating with her during the task. The life cycle for the dragonfly is now almost complete - its mission accomplished.

The eggs are where the journey for the dragonfly begins. After copulation the eggs are laid in reeds, dead wood or simply dropped into the water. In the park you can see female southern hawkers dipping their abdomen in decaying wood as they lay their eggs. Some eggs, such as those of the migrant hawker, hatch within a few weeks; others may take a couple of months or even up until the next year. After hatching, a small nymph will begin its life looking nothing like its parents. But, like their parents, they are solar powered. Furthermore, they are very hungry and will eat anything they can (from mosquito larvae as young nymphs to sticklebacks as adult nymphs). The larger the adult dragonfly the larger the nymph will grow and so the larger the prey can be. They hunt with a large limb that sits under their face and shoots outwards to catch the prey (not unlike the tongue from the xenomorphs in the Alien films). Once they have eaten enough and have fully developed they begin to emerge and the process goes around in a circle.

At the Country Park, the dragonfly species that can be spotted include the emperor dragonfly (*anax imperator*), the common darter (*sympetrum striolatum*), the black tailed skimmer (*orthetrum cancellatum*), migrant hawker (*aeshna mixta*), brown hawker (*aeshna grandis*), and southern hawker (*aeshna cyanea*). The damselfly include the azure damselfly (*coenagrion puella*), large red damselfly (*pyrrhosoma nymphula*) and banded demoiselle (*calopteryx splendens*). The brown, southern and migrant hawkers can be seen in the autumn - up to November for the migrant hawker. The common darter can be seen as late as December.



A brown hawker found at the Harrold-Odell Country Park

The most obvious differences between damselflies and dragonflies are:

- Dragonflies' eyes cover a large portion of their head and meet at the top (apart from the Common Clubtail whose eyes don't meet), damselflies' eyes don't meet and they are relatively smaller.
- Dragonflies are larger in every way.
- Dragonflies rest with their wings outspread, damselflies rest with their wings folded over their back.
- Dragonflies' hind wings are broader than their forewings whereas damselflies have similar shaped wings.

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