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The Life and Times of a Dragonfly

Why Are Dragonflies Important?

Dragonflies play an important role in many ecosystems. Their larvae predate other aquatic invertebrates, and are an important food source for animals, like amphibians. As adults, Dragonflies eat other flying insects, but are prey for birds, such as Hobby.

Dragonflies have a significant place in many cultures across the world, particularly in Asia. Many people take pleasure in watching the brightly coloured adults skimming around wetlands on sunny days, and they are often featured in artwork and literature. Their unique biology and behaviour also make them fascinating subjects in scientific research.

Threats and Conservation

Over the last 60 years we have witnessed the extinction of two species of Dragonfly in the British Isles. At least a third of the remainder are considered to be rare and localised.
The greatest threats come from habitat destruction and fragmentation, pollution, inappropriate habitat management, alteration of site hydrology, and the impacts of climate change.


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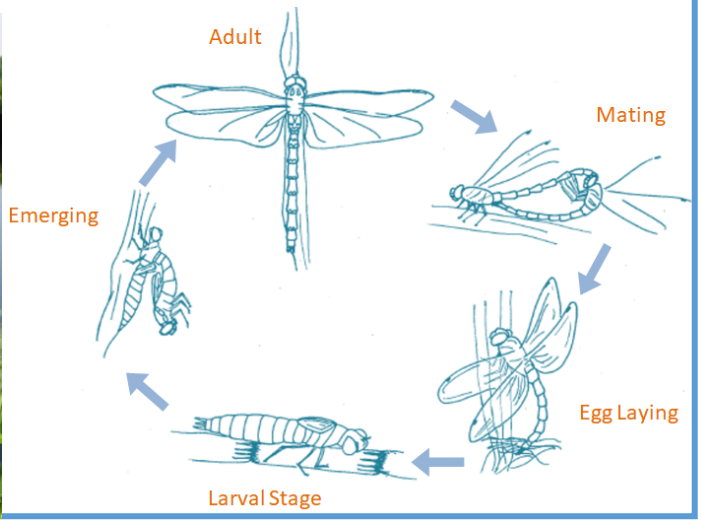
Dragonflies are amazing insects with fascinating behaviours, majestic flight and beautiful colours.

History

Dragonflies are ancient creatures, whose ancestors flew above the carboniferous forests 300 million years ago, before the dinosaurs roamed the earth. These ancestors included Meganuera, also called ‘Griffinflies’, some of which had wingspans over 70cm!

Life Cycle

Dragonflies are hemimetabolous, which means they don’t have a pupal stage like some other insects, such as Butterflies. Instead they have a long larval phase underwater (ranging from 8 weeks to 5 years) followed by a short adult phase.



Dragonfly or Damselfly?

Dragonflies (Anisoptera) and Damselflies (Zygoptera) belong to the Order of insects know as Odonata (meaning 'toothed jaws').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Damselflies are delicate, slender insects with a weak, fluttering flight. The head is rectangular, with the eyes on either end. The front and back wings are the same shape and these are normally held closed along the abdomen when the Damselfly is at rest.


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Dragonflies are larger, more robust and more powerful fliers. The head is more spherical and consists almost entirely of a huge pair of eyes. The front and back wings are dissimilar in shape and these are normally held open whilst the dragonfly is at rest.

Where do you find them?

In Britain, Dragonflies all require permanent water. They can be found in almost any wetland habitat, from ponds and lakes to canals, rivers, ditches, and even bogs.

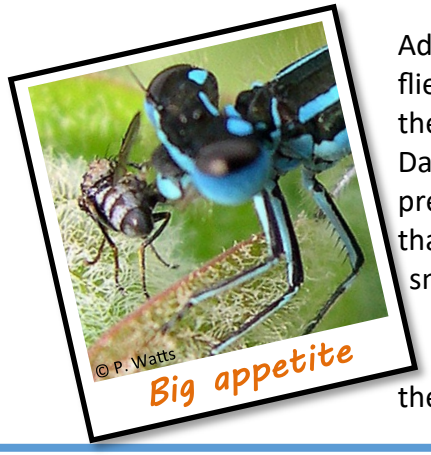
Dragonflies thrive in unpolluted waters that support plenty of aquatic plants. These plants provide egg-laying and emergence sites, as well as shelter. Many species also require open water. Dragonflies tend to prefer places which are open to sunlight with some shelter from strong winds.

You may also encountered adult Dragonflies in woodland glades and rides, hedgerows and grassy meadows. These are important places for hunting, and provide shelter where immature Dragonflies can develop in relative safety, away from aggressive territorial males who patrol the wetland breeding grounds.

Top Facts!

Dragonflies are visual hunters and have impressive vision. They are able to see colours humans can't, including ultraviolet light. Their large compound eyes are made up of as many as 30, 000 lenses (ommatidia). Those in the upper part of the eye are usually larger and more numerous. This provides an area of superior visual acuity and is why Dragonflies usually ambush prey from behind and below.

Dragonflies can fly at a top speed of 36km/hour, and Damselflies at a top speed of 10km/hour. They have powerful flight muscles and wings that move independently, which makes them incredibly agile. They are able to hover, fly forwards, backwards and sideways, and they can change the direction and speed of their flight rapidly.



Adults feed on flying insects, especially small flies, such as midges and mosquitoes. Some of the larger species will take Butterflies and Damselflies. The larvae are mostly ambush predators, feeding on anything that is smaller than themselves, such as other insect larvae, small fish and tadpoles. Larvae catch prey by extending their modified lower lip (labium) at lightning speed and impaling prey on their sharp mandibles.