



GROUPS

Examples from left to right: Four-spotted chaser dragonfly (*Libellula quadrimaculata*) David Chandler, Southern hawker dragonfly (*Aeshna cyanea*) Ann Stuart, Common blue damselfly (*Enallagma cyathigerum*) David Chandler, Large red damselfly (*Pyrrhosoma nymphula*) David Chandler

Dragonflies & damselflies

Information: David Chandler

All about dragonflies & damselflies

- True dragonflies and damselflies are in the Order Odonata, which means 'toothed ones' – a name with its roots in the powerful jaws of these predatory insects.
- Over a million insect species have been named so far. About 6000 are true dragonflies or damselflies. 46 species breed in, or are regular migrants to, the UK.
- Dragonfly-like insects have been around for 325 million years.
- True dragonflies have stout bodies and most have eyes that touch (the one UK exception is the common clubtail). They are strong fliers and settle with their wings more or less at right angles to the body.
- Damselflies have long, thin bodies and a gap between their eyes. Their flight is weak and fluttery and they settle with their wings held along their back (except emerald damselflies – their wings stick out at 30–45°).
- Depending on the species adults can be seen from April/May to late autumn. Warm days that are not too cloudy or windy, are when they are likely to be most active.
- They need water to breed and can be seen around ponds, lakes, ditches, canals, streams, rivers, bogs and marshes. You can also see them elsewhere for example, immature dragonflies and damselflies head away from the water and return when they are ready to breed.
- Their compound eyes, as a proportion of body size, are the biggest of any animal. Each eye is made up of a large number of facets – each of which has its own lens and forms its own image. They can see forwards, sideways, up, down and, by moving the head a little, backwards.
- They are voracious predators that eat a wide range of insects. Midges and mosquitoes are favourites. Bigger prey includes butterflies, damselflies and even true dragonflies. Some eat other members of the same species!

- Some dragonflies and damselflies lay eggs into plants, others onto the water's surface (they then sink). Most of their life is spent underwater as a larva – typically a year or two. Larvae repeatedly moult to grow and when the time is right most climb out of the water on something upright – e.g. a plant stem, to emerge. The adult pulls itself out of its last larval skin (the exuvia) and pumps itself up – emergence can take up to four hours. Adults are short-lived; one to three weeks for a damselfly, and four to eight weeks, for a true dragonfly. Unlike other insects males have two sets of genitalia which makes it possible for them to mate in the heart-shaped wheel position.

Why do dragonflies & damselflies need our help?

The biggest challenges facing dragonflies and damselflies are climate change and loss of habitat. There is a general lack of fresh water in the UK. More ponds are destroyed than created in a typical year. As the climate changes we need to create new habitats that will enable dragonflies and damselflies to move more easily between sites. As new species arrive in the UK, we need to help them to be able to move through the landscape and colonise new areas. In addition, intensive farming systems and high density housing developments can rapidly destroy or damage dragonfly and damselfly habitats. Many British waterways are heavily polluted with sewage, industrial run-off, slurry from farmland and pollution from domestic homes (dishwashers, body products). Sources of unclean water reduce oxygen levels and in the long term prevent many species from thriving.

DID YOU KNOW? No insects fly better than dragonflies! They can fly forwards, backwards, sideways, up and down, and can glide and hover. They have two pairs of wings and all four of them can move independently of each other!

How can we help?

- Dig a pond – even a small pond can make a difference. Remember, never refill a pond using mains water supply. Chlorinated water is bad news for dragonflies and damselflies.
- Create pond dipping platforms where you can safely observe your dragonflies and damselflies
- Plant oxygenating aquatic and semiaquatic plants. These will help improve water quality and provide a place for odonata to mate and lay their eggs.
- Share your enthusiasm for these remarkable insects with other people.

Learn more

- british-dragonflies.org.uk
- Book: A Beginner's Guide to Dragonflies & Damselflies of Britain & Ireland, David Chandler, Pisces Publications, 2020.
- Book: The Dragonfly-Friendly Gardener, Ruary Mackenzie Dodds, Saraband, 2016.
- Contact an A Rocha UK naturalist at naturalist@arocha.org