A Breath of Fresh Air



The newsletter for schools from the **Horsell Common Preservation Society**

No. 15

Dragonflies and Damselflies

During the summer Horsell Common is an ideal place to look for dragonflies and damselflies. The many ponds, Basingstoke Canal and River Bourne are all places where these colourful insects can be easily seen. In the following article Dr. John Pontin explains a little about them.

The large day-flying dragonflies can be seen near water and sometimes away from it when maturing or looking for a new site. The much smaller and weaker-flying damselflies, which also live near water, have many of the same peculiar features which result in biologists classifying them in the same order of insects - the Odonata.

Members of this order all fly with the hind-wings out of step with the fore-wings and powered by a different muscular arrangement from other insects. They have aquatic larvae (often called nymphs) which catch living prey by means of an extensible lower "lip" with grasping jaws on the end of it. The large dragonfly larvae may eat tadpoles and fish-fry, but the others confine themselves to smaller moving prey. The adults also hunt by sight and catch flying insects using their legs as a net but eat them using typical insect jaws.

Dragonflies differ from damselflies in holding their wings extended horizontally when at rest while damsels usually fold their wings butterfly-fashion over their backs. The nymphs are also different. They both have typical insect airtubes to distribute oxygen through the body, but these are not opened to the air until near hatching age so they need gills to extract dissolved oxygen from the water. Damselfly gills are three flat plates on the tail end of the nymphs, but dragonfly nymphs have gills in the rectum which can pump water in and out over them.

The larval stage may last more than a year - especially in habitats such as moorland streams and ponds where prey is not numerous. When the adults are ready to hatch the larvae walk up the stems of reeds or other vertical objects and split their hard outer layer forcing themselves



out. The wings are small at first but are expanded by pumping them with blood and allowing them to harden in the air. They cannot fly at first and it may take more than one day before they can fly with maximum speed and manoeuvrability.

Large dragonflies can reach 25mph or more and may migrate 1000 miles - several species occur in Britain solely as rare immigrants while many commoner ones are supplemented by immigrant swarms as well as breeding here. They can turn extremely rapidly in flight (and are difficult to capture) and many species can hover - on the other hand walking rarely occurs!

Their fossil record goes back 300 million years, in old coal deposits very large (3ft wingspan) dragonflies have been found well preserved. This great age probably accounts for their unique difference from other insects.

For those who wish to extend their knowledge I suggest the "Field Guide to the Dragonflies and Damselflies of Great Britain and Ireland" by Steve Brooks; British Wildlife Publishing £18.95. There are several other splendid books available if you cannot find this one including the "Dragonflies of Surrey" by Peter Follett obtainable from the Surrey Wildlife Trust.

John Pontin 22.4.02

Common Fires

The recent large fire on Chobham Common has highlighted the danger and consequences of lighting fires on common land. The Chobham fire which destroyed 50 acres of heathland and killed many birds, reptiles and small animals was believed to have been started deliberately. The smoke caused the M3 to be closed for five hours, causing 25 mile tailbacks. There have been a series of similar incidents on Horsell Common during the recent dry spell in April.

The Ray Mears' Extreme Survival programme on BBC2 has encouraged many people to try out their survival techniques on the Common. This can be very dangerous particularly during the dry summer months. Under dry conditions fires can soon get out of hand and very quickly spread. In recent times the long hot summer of 1976 caused the most damage to the Common. There

were 38 days without any rain, and Heathrow Airport recorded 21 days when the temperature was above 86F (30C). During this time the fires on the Common were never really extinguished and continued smouldering for weeks. The damage was extensive and may of the older pines still carry the scars. The village experienced a constant smell of fire on the air.

Again in 1990 a long spell of dry weather had fires raging out of control. On Ash Ranges 250 acres were swept by fire and 20 people had to be evacuated from their homes. On Horsell Common the Fire Brigade was so stretched that Alan Greenwood from Mimbridge who collects vintage fire engines loaned them his old Dennis fire appliance (see the photo below).

Please always remember to observe the Common Code (see the panel below).



Firemen had to resort to borrowing Mr. Alan Green-woods vintage 1960 Dennis fire appliance to tackle a heathland fire just off Littlewick Road in August 1990.

On 4th August 1990 Surrey Fire Brigade tackled 103 separate heath and grass fires in one day. Chobham's parttime fire fighters worked for nearly 19 hours non-stop.

Bee update

My solitary bees and wasps have emerged from their foam blocks. You will be able to see the empty blocks on the Hosell Common stand at the Horsell Village Show in July. One of my nest boxes which is normally used by Blue Tits has a nest of Bumble Bees in it this year.



Nightjars will be returning to Horsell Common. Late June about half an hour before dusk is the best time to hear them. These rare birds fly to us from Africa for a few short months to lay their eggs and raise young.

The Common Code

Please don't:

Camp or light fires
Do any damage
Feed or disturb wildlife or livestock
Operate firearms or expolsive devices
Hunt or collect fauna or flora or use
metal detectors

Please do:

Take litter or rubbish home
Close gates (unless they are fastened open)
Follow guidance notices for your own
safety or to protect wildlife
Use the Common responsibly and with
consideration for others