

## Worcestershire Dragonfly Roundup – 2018

Entomologists are usually also keen weather watchers, checking the forecasts closely for an indication as to when certain insects will be emerging as adults and 2018 kept us all waiting because the months to April were cool wet and sometimes snowy. The first sightings of the scouts of the dragonfly world, the Large Red Damselflies *Pyrrhosoma nymphula*, were over a week late and this pattern continued with some of the regular species, such as the Demoiselles and other early damselflies. What we didn't know at that time was that we were to experience a drought lasting nearly three months with a period from mid June to mid July having no appreciable rain for 35 days. Normally we can stand a dry period especially when the previous years have been reasonably wet but this time groundwater levels took a dramatic drop threatening many shallow water bodies in the County. This can obviously be disastrous to creatures whose life cycle relies on permanent water and many aquatic creatures must have perished. It poses the question how did dragonflies do in the drought? Whilst it is concerning when pools go dry like they did at Hartlebury Common and elsewhere, there are so many opportunities for a mobile group like dragonflies to complete their life cycle with long sunny days that it is hoped that they will have had a good year. It was noticeable that by August some species were already getting hard to find and it could well be that the adults had succeeded in laying all their eggs well before normal. A female's lifetime production of eggs is directly related to the number of eggs laid in each clutch, the time between clutch, her lifespan, but also the possibility to be more active in good weather. While it could be that the life of a dragonfly or damselfly may be shortened by good weather due to being more conspicuous to predators, the long days of warm calm weather should provide the potential to maximise egg production. A further clue that dragonflies may have had a good year might also be that the apparent early decline in numbers seen later in the year could be because all those that might emerge and reach adulthood this year, had done so early on.

Although it had been a poor start to the season, reasonable weather in May and the hot dry June brought other species forward and some like the Emerald Damselfly *Lestes sponsa*, and Ruddy Darter *Sympetrum sanguineum* made it the earliest emergence date for many years. This was definitely the case with two late season species the Small Red-eyed Damselfly *Erythromma viridulum* and Migrant Hawker *Aeshna mixta* which were also the earliest for years.

One way to get a feel for how dragonfly numbers have fared is to look at the Eckington transect data. Here we see (Graph) that the Scarce Chaser *Libellula fulva* had the best year for the last ten years and that may be due to the fact that its flight period exactly coincided with the hot spell and so males were particularly evident this year. It was also the best year for ten years for large Red Damselflies and Brown hawkers *Aeshna grandis*. Amongst the Damselflies, the Banded Demoiselle *Calopteryx splendens*, Red-eyed Damselfly *Erythromma najas* and Blue-tailed Damselfly *Ischnura elegans* had a reasonable year but the Common Blue-Damselfly *Erythromma cyathigerum* was conspicuously absent this year. Another casualty was the White-legged Damselfly *Platycnemis pennipes* which has been the subject of concern by the British Dragonfly Society. Looking at the graph this species does fluctuate from year to year and did have a good year in 2011 and in 2017 but it was noticeably absent this year despite the good weather. The reason for that is not clear, but it is particularly puzzling why the numbers had built to for four years to 2017 then plummeted.

Common Clubtail Dragonflies *Gomphus vulgatissimus* have regularly featured in these annual reports and the long running counts at Bewdley (graph) give a clear impression as to what happened this year. The emergence totals were the third highest in the last eight years and searches elsewhere

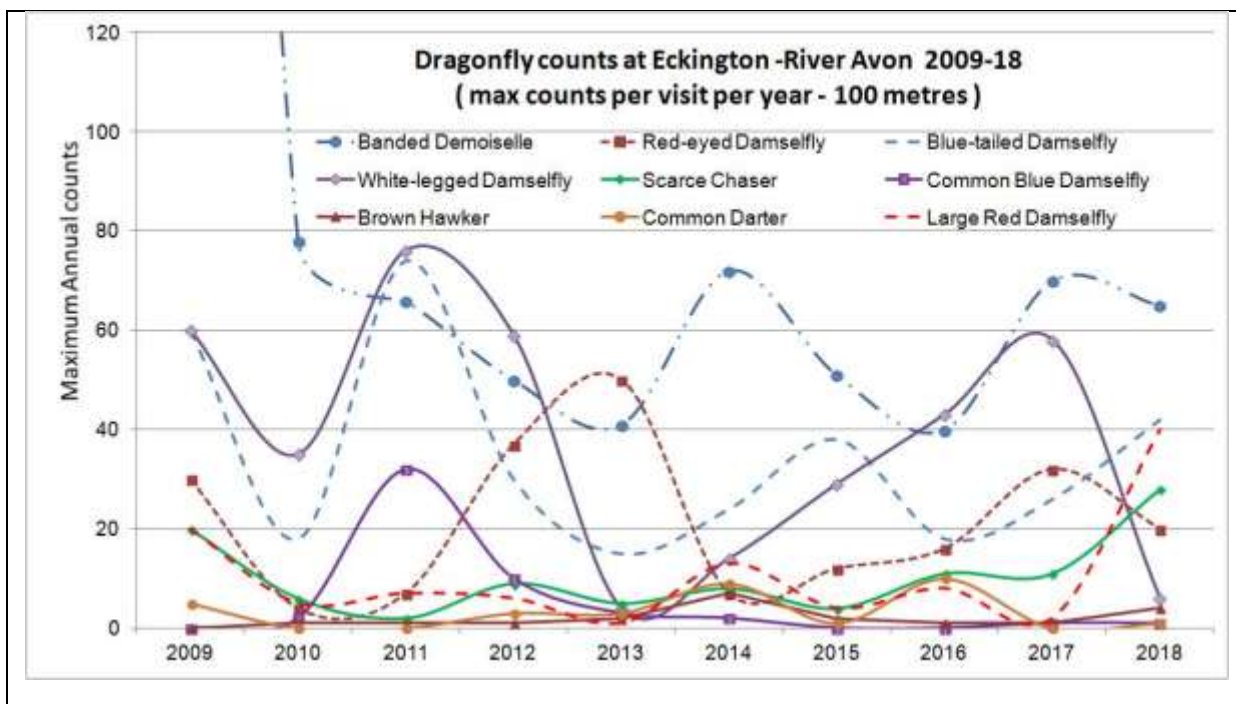
have shown that while the River Severn and lower Teme appear to be holding their own there is some evidence that they are harder to find in the upper reaches of the Worcestershire Teme. On the River Avon there was just one record of an adult this year at Eckington but no other signs otherwise which makes this the eighth year without any significant records. There will be one more year, by the British Dragonfly Society, to assess what is happening with this species and next year we may be more certain as to what is going on and whether it is a local or countrywide issue.

The Common Hawker *Aeshna Juncea* is never common in the county but there is usually the odd record somewhere and this year a male was spotted at Bickley, near Tenbury. How can we be sure it was a Common Hawker? The narrower stripes both on the sides and top of the thorax plus the yellow leading wing edge usually gives it away (Ph). Southern Hawkers *Aeshna cyanea* have broader thoracic stripes and Migrant Hawkers have hardly any stripe on the top of the thorax. This particular male was probably immature as the abdomen has not yet developed the blue spots usually seen in older specimens.

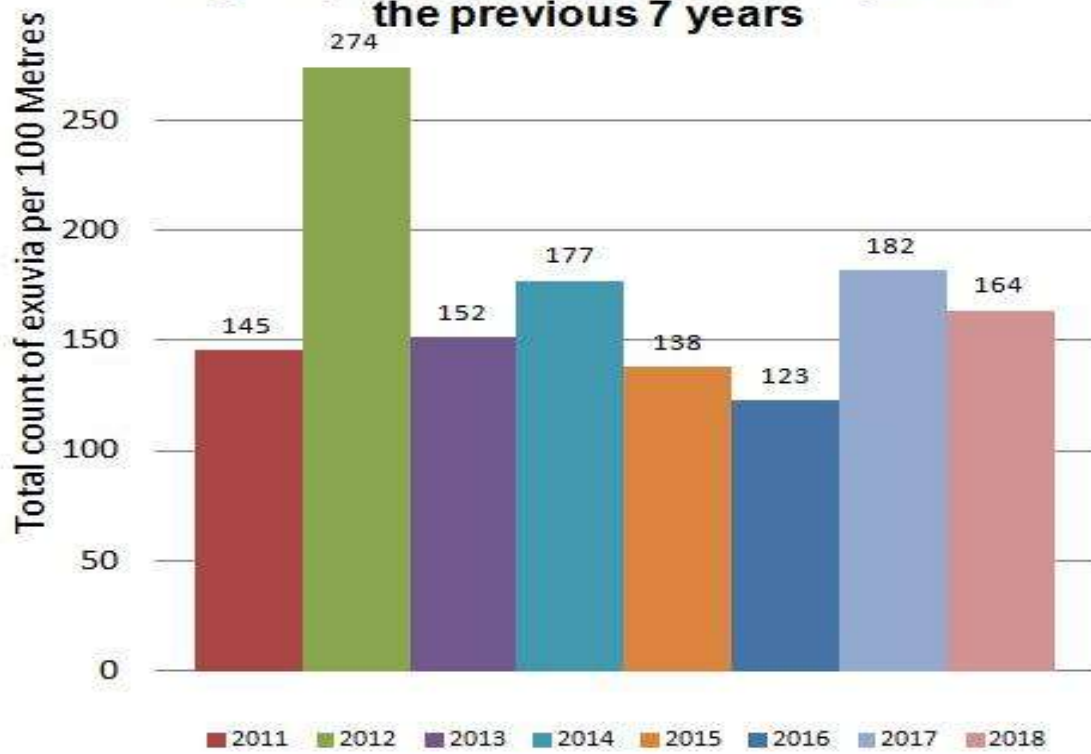
A periodic visitor, the Red-veined Darter *Sympetrum fonscolombii* made an appearance at one of its most visited sites, Pirton Pool on 1st July. This was probably part of a larger influx across the midland counties from the South East.

Away from the River Avon, the Scarce Chaser also had a good year at Hillditch pool where despite looking as if the last two years would be the colony's last, 7 males were seen at their peak. There was also an individual at Hurcott Pool, a site that sometimes attracts a male in good years. In the south of the county there were several at the Ryall pits, at the new lake at Ripple and also some males at the south end of Croome Park , so all in all a good year for this species

A drought year it might have been but how nice it was to be able to go out for the day knowing there would be no need for raincoats nor the need to get to a site before the sun went in. The barbeque weather meant there was even a bit of evening flying by some of the Hawkets, something you rarely see in the UK.



### Emergence numbers of the Club-tailed Dragonfly at Bewdley in 2018 compared to the previous 7 years





Flying male Common Hawker ( showing pale leading edge to the wings) –Mike Averill

Mike Averill