



Wyre Forest Study Group

The Dragonflies of Wyre Forest

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A history of dragonfly recording in The Wyre Forest with particular emphasis on two typical species

As was often the case in Victorian England, early natural history recording was carried out by the Naturalist Clubs. This was certainly the case in Wyre where the Worcestershire Naturalist Club would make forays into the Forest by horseback or even using the old railway that ran out to Tenbury.

Surprisingly, only two species, The Beautiful Demoiselle (*Calopteryx virgo*) and the Golden-ringed Dragonfly (*Cordulegaster boltonii*) were recorded in those early days before 1900. However there may still be a few more records lying unnoticed in the transactions of the Club.

Other records also exist from the same period for those two species in the Victoria County History. Under the editorship of J E Fletcher, the notable entomologist, the insect natural history of Worcestershire was set in print for the first time. The only other named individual noting dragonflies in Wyre was R C Bradley. He too recorded the same two species.

After the turn of the nineteenth Century there was a huge gap in recording until the famous local naturalist Fred Fincher started in 1947 and he added a further 7 species by 1955. This coincided with the publication of the Wayside and Woodland book on Dragonflies by Cynthia Longfield.

It was another 20 years before interest was rekindled mostly by the appearance of another book, this time the Dragonflies of Great Britain and Ireland by C O Hammond. This was a field identification book and from this point many reliable records started to pour in to recording schemes. By the mid 1980s all the species that probably occurred at that time had been recorded and it was just a matter of covering the whole area in subsequent years and quite importantly in these times of insect range extension, tracing those changes.

Currently we have almost 1000 records for Wyre covering 21 species. (table 1) Fourteen of these have been proven to breed. This can be regarded in the context of there being 28 species recorded in Worcestershire as a whole. Where Wyre appears to miss out is on the newer migrant darter species that are now regularly visiting the County.

Mention has been made of the two original dragonflies which have been recorded since 1895 and it would be worth looking at these in some detail as they typify the Wyre.

Both species use running water habitat and are at home in Wyre, which is a unique area identified as a raised plateau dissected by the Dowles Brook and its tributaries which run east to the River Severn.

The Beautiful Demoiselle

Calopteryx virgo (Linnaeus 1758)



Beautiful Demoiselle male

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The male of the Beautiful Demoiselle (see photo) is an exotic purple black individual which flits in the dappled sunshine along the alder and oak lined streams. It is one of the few damselflies to exhibit any territorial behaviour and males will set up a territory in a sunny patch waiting for a female to fly by. They will be found flying low along the small tributaries of Dowles Brook often in total shade as they try to maintain stations where the sun breaks through the tree canopy. Males will flick their four wings simultaneously whilst sat at their lookouts while females will indicate whether they are receptive by allowing the male to grasp them behind the head or refuse by holding their abdomens upright. This species favours the clear stony streams with rocky or gravel beds typical of Wyre. The similar species the Banded Demoiselle (*Calopteryx splendens*) prefers the larger rivers with silty beds and much more open aspect. The Banded Demoiselle is easily identified by noting the rounded dark blue patch in the wing of the males as opposed to the

almost complete coverage of blue in the wing of *C. virgo*. During the development of the male *C. virgo*, the wing colouring passes through a distinct phase of a brown colour at first and later develops the purple/ black. This difference led early recorders to regard these two stages as separate species.



Beautiful Demoiselle female

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The wings of immature females show shades of light brown (see photo). The colouring on female *C. splendens* never develops beyond a light green colour. On the outer leading edge of all four wings of the Calopteryx females there is a false pterostigma. It is false because all other species of dragonfly have a pterostigma made up of an identifiable set of cells bounded by an outer margin whereas Calopterygidae has an amorphous collection of cells not particularly having a border. Male Calopterygidae do not have a pterostigma.

Like all damselflies this species lays its eggs into vegetation and so it needs bankside, floating or submerged vegetation to do this. This vegetation may also provide a support for the emerging larva to cling to although they can use vertical faces of rock, bridge abutments and even trees. The larval case (exuviae) left behind by the adult is large compared to other damselflies and the long length of the antennae and appendages should help identify this insect. Adults are on the wing from late May to late July.

Golden-ringed Dragonfly

Cordulegaster boltonii (Donovan 1807)

PICTURED ON FRONT COVER

This Dragonfly, as a rule, is more likely to be found in Shropshire than Worcestershire as it

prefers boggy runnels and streams with a silt, gravel or stony bed, usually in upland western areas and some lowland heaths. This habitat is scarce in Worcestershire but is found in many of the hill ranges in Shropshire. Wyre with its dissected wooded valleys stands as an isolated block straddling the Shropshire/Worcestershire boundary and is an ideal place for this dragonfly and it could be regarded as the symbolic dragonfly for Wyre.

The insect itself has striking black and yellow markings with apple green eyes. Considering the larvae live in water depths of 5 cms or less it is hard to believe that the larvae themselves are one of the largest in the British Isles. Hiding in silt or detritus the larvae conceal themselves with only the eyes and abdomen protruding. The facial mask is large and fringed with deeply incised teeth which must make it one of the most formidable predators in the stream. After spending up to three years as larvae, the adults start to emerge in late May and are on the wing until August.

Males patrol a stretch of stream relentlessly without being particularly territorial while females will fly nearby and after having mated will lay eggs unaccompanied. How she does that is unique amongst British dragonflies in that she flies along slowly whilst dipping her abdomen into silt with a prodding action. The extended ovipositor qualifies the female as the longest dragonfly in Britain.

Patrolling lengths of stream is important to this dragonfly and so it is essential that the watercourses are not allowed to become impassable with overhanging brash, brambles or other invasive vegetation.

Part of the intrigue of this dragonfly is that it can never be guaranteed that the adult will be seen on a field visit, and yet often it can be seen sitting on bracken in a glade when least expected. To be sure of finding this dragonfly it may well be necessary to meticulously inspect the shallow ditches for exuviae. One such place is the ditch leading down from the visitor centre to the Park Brook.

With the changing face of the countryside, of all the dragonflies seen in Wyre, the Golden-ringed Dragonfly represents some continuity as its appearance today can be regarded, much the same as the Victorians naturalists would have on their forays to Wyre.



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Table 1

Table summarising the species recorded in Wyre between 1895 to 2006						
No Species	Species		First	Last	Tot Recs	Breeding
1	Beautiful Demoiselle	<i>Calopteryx virgo</i>	1895	2006	52	Yes
2	Golden-ringed Dragonfly	<i>Cordulegaster boltonii</i>	1895	2005	25	Yes
3	Common Darter	<i>Sympetrum striolatum</i>	1947	2004	62	Yes
4	White-legged Damselfly	<i>Platycnemis pennipes</i>	1949	2006	78	Yes
5	Club-tailed Dragonfly	<i>Gomphus vulgatissimus</i>	1950	2006	69	Yes
6	Blue-tailed Damselfly	<i>Ischnura elegans</i>	1952	2005	74	Yes
7	Banded Demoiselle	<i>Calopteryx splendens</i>	1952	2006	97	Yes
8	Southern Hawker	<i>Aeshna cyanea</i>	1955	2005	112	Yes
9	Brown Hawker	<i>Aeshna grandis</i>	1959	2004	70	Yes
10	Large Red Damselfly	<i>Pyrrhosoma nymphula</i>	1975	2006	84	Yes
11	Azure Damselfly	<i>Coenagrion puella</i>	1975	2006	82	Yes
12	Common Blue Damselfly	<i>Enallagma cyathigerum</i>	1978	2006	55	Yes
13	Common Hawker	<i>Aeshna juncea</i>	1979	2004	6	Probable
14	Broad-bodied Chaser	<i>Libellula depressa</i>	1980	2006	42	Yes
15	Emerald Damselfly	<i>Lestes sponsa</i>	1981	2004	10	Probable
16	Migrant Hawker	<i>Aeshna mixta</i>	1984	2001	17	Probable
17	Emperor Dragonfly	<i>Anax imperator</i>	1990	2006	17	Yes
18	Ruddy Darter	<i>Sympetrum sanguineum</i>	1991	2006	9	Probable
19	Four-spotted Chaser	<i>Libellula quadrimaculata</i>	1998	2005	2	possible
20	Hairy Dragonfly	<i>Brachytron pratense</i>	2000	2000	1	
21	Scarce Chaser	<i>Libellula fulva</i>	2006	2006	1	
					965	14



Scarce Chaser *Libellula fulva*

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