Radnorshire Dragonfly Recorders' Newsletter & 2020 Report
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Introduction

Thank you to the 34 people who contributed to the 2020 Radnorshire dragonfly recording effort which resulted in 319 new records and a lot of excellent photographs. It's always gratifying to welcome new contributors, including those who submitted Odonata records via the on-line ***iRecord, WiRed*** or ***BTO Birdtrack*** systems.

Despite the major limitations on people's movements around the vice-county last season, an impressive 20 species out of our 23 expected species were nevertheless recorded - comprising 12 dragonfly and 8 damselfly species.

For a change, it was I who managed the earliest record of the flight season, namely a maturing adult **Large Red damselfly** in the garden on 15th April. The season's latest record was from Stephen Mullard who recorded a female **Southern hawker** at his garden pond on 29th October.

Newly emerged Southern hawker (m) : Rachel Palmer

Notes on the 2020 season in Radnorshire

- After the unusually sunny April & May, perhaps it was not so surprising that several species started emerging early. Chris Ledbury recorded an adult **Broad bodied chaser** on the 25th April; on the 30th May, I found empty larval cases of **Common darter** next to our new pond, thereby proving breeding for the first time at that site; Fred Slater sent me a photograph of a maturing **Keeled skimmer** on the 2nd June; and the photograph above shows a newly emerged **Southern hawker** that Rachel Palmer rescued on the 6th June. All of these dates indicate emergences that are significantly earlier than normal for Radnorshire.
- Sadly absent from the Radnorshire list of usual suspects were: **Migrant hawker**, **Scarce blue-tailed damselfly** and **Common clubtail**, the latter species being one of our 4 river specialists - about which more later.
- There were three other species which only just made it onto the Radnorshire 2020 list, by virtue of a single record in each case. These were: a **Ruddy Darter** at Evenjobb (thanks to eagle-eyed, Louise Bell); a **Black darter** at the Colva Hills Mawn Pools (thanks to Ben Warren's photography); and the sighting by Stephen Mullard of 4 adult **Black-tailed skimmers** at Ireland's Well pool.

Radnorshire (Vice County 43) Numbers of records by species : 2020 vs. 2019 for comparison

Species Name	Common Name	Record nos. 2020	Record nos. 2019
Aeshna cyanea	Southern Hawker	36	34
Aeshna grandis	Brown Hawker	11	19
Aeshna juncea	Common Hawker	17	9
Aeshna mixta	Migrant Hawker	0	0
Anax imperator	Emperor Dragonfly	12	20
Calopteryx splendens	Banded Demoiselle	17	33
Calopteryx virgo	Beautiful Demoiselle	21	27
Coenagrion puella	Azure Damselfly	31	26
Cordulegaster boltonii	Golden-ringed Dragonfly	6	8
Enallagma cyathigerum	Common Damselfly	9	15
Gomphus vulgatissimus	Common Clubtail	0	0
Ischnura elegans	Blue-tailed Damselfly	2	9
Ishnura pumilio	Scarce Blue-tailed Damselfly	0	2
Lestes sponsa	Emerald Damselfly	5	13
Libellula depressa	Broad-bodied Chaser	36	27
Libellula quadrimaculata	Four-spotted Chaser	8	7
Orthetrum cancellatum	Black-tailed Skimmer	1	9
Orthetrum coerulescens	Keeled Skimmer	3	1
Platycnemis pennipes	White-legged Damselfly	15	5
Pyrrhosoma nymphula	Large Red Damselfly	42	46
Sympetrum danae	Black Darter	1	2
Sympetrum sanguineum	Ruddy Darter	1	4
Sympetrum striolatum	Common Darter	44	56

(Note: a single '*species record'* may consist of a single insect or of numerous individuals seen at a given time and location.)

- In terms of the numbers of records received for each species, the table above gives a comparison for 2020 and 2019. Numbers for 2020 were generally lower than for 2019, as might be expected with such restrictions on people's mobility far from home. Those species whose numbers seemed to be holding up (or were even slightly higher than expected) included: **Southern hawker; Common hawker; Azure Damselfly; Broad bodied chaser; and Large red damselfly**. Closer examination of the individual records for these 5 species showed a strong correlation with water bodies owned by or regularly visited by the recorders in question - perhaps as part of their regular walking regime.

Broad bodied chaser (m) : Stella Clifford-Jones

- As an aside, I should probably claim some credit in respect of the number of **Broad bodied** chaser records, as close to half of the 2020 observations came from my rejuvenated garden pond. I should perhaps explain……

We created our first pond in 1988 and on its first day, as we proudly admired our newly-filled pond in the sunshine, a handsome male **Broad bodied chaser** (*Libellula depressa*) came to rest at the water's edge. This was the first time I had had such a good view of any dragonfly and it started an interest that continues to this day!

Ponds are not maintenance-free, of course. It is often said that if you do nothing to a pond or wetland, it will eventually become oak woodland! In the case of our garden pond, the submerged and marginal vegetation had indeed increased over the years, and - albeit imperceptibly - the area of open water had become significantly smaller.

From a dragonfly perspective, the Odonata species mix also changes gradually as the characteristics of the pond evolve. A few years ago, I realised that I was no longer getting visits from **Broad bodied chasers** - let alone seeing them breed there.

The species is known to prefer and colonise new or relatively un-vegetated ponds; but as a pond ages, other dragonfly species appear to fare better. So in the winter of 2018, we decided to remove much of the vegetation in the water and also around the edges. In this way, we restored the pond to its original size and increased the amount of open water compared to vegetation.

In 2020, we were delighted to notice that the **Broad bodied chasers** were back – both males and females visiting regularly and egg laying taking place - just as I remembered when we first created the pond, and just as the textbooks would have predicted. I have enjoyed turning the clock back!

Mature male White-legged damselfly : Dot Baynham

Radnorshire's 4 'river species'

As mentioned earlier, there were no 2020 records for **Common clubtail** which favours slow moving stretches of the Wye, of which Radnorshire has a limited amount. This was also the case in 2019 and, though disappointing, might not in itself be a cause for concern. Our rivers and streams are also the breeding sites for the other 3 river specialists, namely **Banded and Beautiful demoiselles** and **White-legged damselfly**.

Simply based on the 2020 numbers of records, there appears no particular cause for concern over these 'river species'. Numbers for both species of **demoiselle**, though a little down on 2019, were still quite healthy; and in the case of **White-legged damselfly** – mainly thanks to Dot Baynham's diligent wildlife sorties – the numbers recorded in Radnorshire were significantly higher than normal.

Indeed, as the season progressed, Dot expressed surprise about the numbers and extent of **White legged damselflies** that she was seeing, even photographing one in her own town-garden! Was it *" ….just that they have been under-recorded in previous years, or is it that they are making a come-back"?* I wasn't sure, but I was aware that the British Dragonfly Society has been focusing on this species in the context of the deteriorating health of some UK rivers.

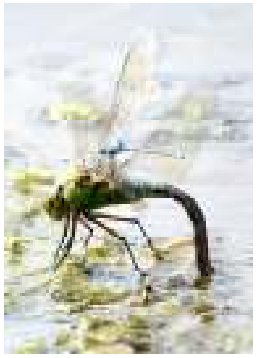
Later on in the season, I was struck by a comment in an email from Richard Knight who noted : *"The only records I have of what to me seem unusual are of **Banded demoiselles** along the River Wye. On the 25th June I counted c.10 at the river edge at Newbridge-on-Wye bridge …. followed by 3+ at the river edge within 20m of Llanwrthwl bridge …... Prior to these sightings I have rarely encountered the species within the Rhayader by Nature study area."* This had some resonance for me as I had myself recorded **demoiselles** of both species during the summer, turning up in unexpected or 'sub-optimal' locations, often some distance from any running water.

Should we take these atypical observations to be pure chance? Indeed, should we even be encouraged at an apparent spread of these river species? The answer on both counts could be 'very possibly'. It would be hard to argue otherwise, considering the relatively small numbers of observations from which to draw any reliable and statistically sound conclusions. But could these observations also be explained on the basis of some sort of degradation or stress to the river habitat, acting as a stimulus for greater than normal dispersal? Time will tell.

For some time, the Wye Usk Foundation has expressed concerns about the deteriorating condition of some of our rivers in Mid Wales, the absence of adequate regulation over diffuse pollution and the growth in the number of intensive poultry units over the last couple of decades. The effects of increased nutrient levels are said to be more apparent in downstream locations, and less so in the upper reaches of a given river system.

Odonata are often thought of as indicators of the health of water bodies – 'canaries in the coal mine'. In the context of reportedly unnaturally high nutrient levels in our rivers in mid Wales, it would seem unreasonable to expect our four river specialists to remain unaffected.

To end on a lighter note, here's a **Common damselfly**, taking a risky ride on the **Emperor's** back!



Common blue damsel (m) on Emperor dragonfly (f): Mike Smethurst

Finally a big thank you to all contributors of 2020 Odonata records & photographs, namely Helen Barnes; Dorothy Baynham; Louise Bell; Pete & Ginny Clarke; Stella Clifford-Jones; Silvia Cojocaru; Theresa Corbett; Bob Dennison; Phil Evans; Darylle Hardy; Martina Holmes; Jane Jarvis; Ceri Jones; Lynne Jones; Richard Knight; Chris Ledbury; Alicia Leow-Dyke; Gina Llewelyn; Chris Longford; Claire Montanaro; Andrew Moss; Ben Mullen; Stephen Mullard; Rachel Palmer; Bryan Price; Fred Slater; Mike Smethurst; Jonathan Stone; Carole Taylor; Janice Vincett; Ben Warren; David Warren; Gill & John Wilde