

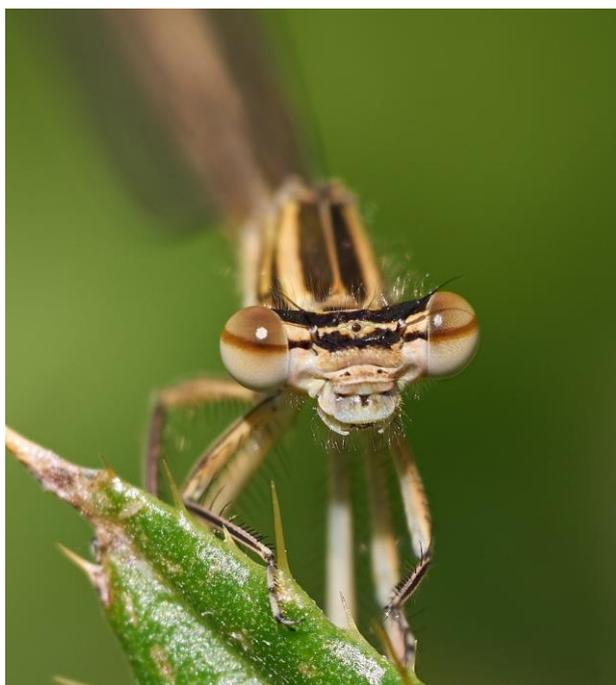
# Shropshire (VC40) Dragonfly Newsletter



Spring 2018  
Sue Rees Evans

## Introduction

Happy New Year and a big **THANK YOU** to all who were out and about in 2017 recording Shropshire dragonflies. It was a mixed year weather wise with a very promising start followed by periods where things ‘failed to take off.’ Despite this we accumulated around 700 records from over 70 recorders. Interestingly 24% of the



Keeping a close eye on White-legged Damselflies  
Photo: D. Williams

records were entered via iRecord – a further increase on the 21% last year (and 13% in 2015). Again the data contained a good number of exuviae records covering 9 different species. This was due in no small part to the **Clubtail Count 2017** organised by David Tompkins and Genevieve Dalley of the British Dragonfly Society. They had some excellent results (see the individual reports) and again illustrated how a structured survey encouraging people to look for something specific can result in many other valuable species records.

The **Shropshire Dragonflies Website** and the **Shropshire Dragonfly Watch** flight season blog also had another successful year enabling us all to stay informed of the comings and goings

throughout the year. Again your photos were spectacular and I have included as many stunning examples as possible throughout this newsletter! I never cease to be amazed how a good photograph can illustrate so much that the naked eye is oblivious to.

No new Shropshire species to report this year, but I am very pleased to announce a **new Shropshire Dragonfly County Recorder**. Vicky Nall will be taking over the role from mid February onwards and you can read more about Vicky later in this newsletter.

## Flight Season 2017

Following the fairly chaotic 2016 flight season, 2017 started with a number of distinctly early sightings of our early spring species. In fact, 2017 produced the earliest ever start to a Shropshire flight season with the earliest ever sighting of **Large Red Damselfly** *Pyrrhosoma nymphula* recorded by David Williams on 8<sup>th</sup> April at Langleyfields, Telford. This is a full week earlier than the previous record made on April 15<sup>th</sup>, 2014 by Dan Knight at Dolgoch Quarry. **Four-spotted Chaser** *Libellula*

*quadrifasciata* was the second species on the wing recorded on 22<sup>nd</sup> April at Whixall Moss by Stephen Barlow. This sighting also broke Shropshire records, the 2 previous earliest sightings both being made on May 1<sup>st</sup> at Whixall Moss, by John Balcombe in 2011 and H. Archer-Lock in 1983.



Four-spotted Chaser on the wing....briefly...courtesy of a Stonechat.  
Photo: S. Barlow

The 'early trend' then continued with **Common Clubtail** *Gomphus Vulgatissimus* and **White-faced Darter** *Leucorrhinia dubia* appearing on the 2<sup>nd</sup> and 3<sup>rd</sup> May respectively –not breaking records, but still earlier than average. **Azure Damselfly** *Coenagrion puella* was recorded on 5<sup>th</sup> May and then **Banded Demoiselle** *Calopteryx splendens* on 10<sup>th</sup> May- the latter being the 2<sup>nd</sup> earliest recent sighting, missing the record (9<sup>th</sup> May 2011) by a day!

The early flight season was witnessed in other parts of the UK with Large Red Damselfly being recorded as early as 25<sup>th</sup> March in Cornwall. Southern areas typically produce earlier records, but perhaps of more interest is Lancashire breaking early records with a Large Red Damselfly being recorded on 4<sup>th</sup> April (Perrin, 2017a). As the season progressed (and as I recall the weather grew more varied!) the early sightings dissipated. That said, interestingly **Emerald Damselfly** *Lestes sponsa* and **Black Darter** *Sympetrum*

*danae* both produced the 2<sup>nd</sup> earliest Shropshire sightings ever. Emerald Damselfly was recorded on 4<sup>th</sup> June (previous record 3<sup>rd</sup> June, 1990 made by J. Roberts at Moss Cottages, Whixall) and Black Darter was recorded on 14<sup>th</sup> June (previous record 9<sup>th</sup> June, 1999 made by P. Boardman at Whixall Moss).

A mild autumn brought hopes of significantly late records and whilst some species produced late sightings such as **White-legged Damselfly** *Platycnemis pennipes* on 28<sup>th</sup> August and **Golden-ringed Dragonfly** *Cordulegaster boltonii* on 1<sup>st</sup> September, again no records were broken. The last record of the flight season was predictably that of a **Common Darter** *Sympetrum striolatum* seen by Stephen Barlow at Whixall Moss on 2<sup>nd</sup> November. This was much earlier than the latest ever Shropshire record made on 20<sup>th</sup> November, 2015 at Brown Moss, again by Stephen Barlow.



Fabulous close up of Brown Hawker!

The table below shows the first and last dates for those species recorded in Shropshire in 2017, but it is important to understand that these are directly influenced by recorder effort and the sites visited.

### First and Last Recorded Sightings 2017

Species	Common Name	Date of first record	Date of last record
<i>Calopteryx splendens</i>	Banded Demoiselle	10 <sup>th</sup> May	1 <sup>st</sup> August
<i>Calopteryx virgo</i>	Beautiful Demoiselle	14 <sup>th</sup> May	4 <sup>th</sup> July
<i>Lestes sponsa</i>	Emerald Damselfly	4 <sup>th</sup> June	1 <sup>st</sup> September
<i>Coenagrion puella</i>	Azure Damselfly	5 <sup>th</sup> May	27 <sup>th</sup> August
<i>Coenagrion pulchellum</i>	Variable Damselfly	31 <sup>st</sup> May	1 <sup>st</sup> June
<i>Erythromma najas</i>	Red-eyed Damselfly	14 <sup>th</sup> May	5 <sup>th</sup> July
<i>Pyrrhosoma nymphula</i>	Large Red Damselfly	8 <sup>th</sup> April	2 <sup>nd</sup> August
<i>Enallagma cyathigerum</i>	Common Blue Damselfly	26 <sup>th</sup> May	30 <sup>th</sup> August
<i>Ischnura elegans</i>	Blue-tailed Damselfly	14 <sup>th</sup> May	2 <sup>nd</sup> September
<i>Platycnemis pennipes</i>	White-legged Damselfly	21 <sup>st</sup> May	28 <sup>th</sup> August
<i>Aeshna cyanea</i>	Southern Hawker	9 <sup>th</sup> June	8 <sup>th</sup> October
<i>Aeshna grandis</i>	Brown Hawker	1 <sup>st</sup> June	6 <sup>th</sup> September
<i>Aeshna juncea</i>	Common Hawker	2 <sup>nd</sup> July	29 <sup>th</sup> October
<i>Aeshna mixta</i>	Migrant Hawker	15 <sup>th</sup> August	14 <sup>th</sup> October
<i>Anax imperator</i>	Emperor Dragonfly	2 <sup>nd</sup> June	18 <sup>th</sup> August
<i>Gomphus vulgatissimus</i>	Common Club-tail	2 <sup>nd</sup> May	4 <sup>th</sup> June
<i>Cordulegaster boltonii</i>	Golden-ringed Dragonfly	11 <sup>th</sup> June	1 <sup>st</sup> September
<i>Cordulia aenea</i>	Downy Emerald	31 <sup>st</sup> May	31 <sup>st</sup> May
<i>Leucorrhinia dubia</i>	White-faced Darter	3 <sup>rd</sup> May	16 <sup>th</sup> July
<i>Libellula depressa</i>	Broad-bodied chaser	26 <sup>th</sup> May	12 <sup>th</sup> July
<i>Libellula quadrimaculata</i>	Four-spotted Chaser	22 <sup>nd</sup> April	23 <sup>rd</sup> July
<i>Orthetrum cancellatum</i>	Black-tailed Skimmer	9 <sup>th</sup> June	4 <sup>th</sup> August
<i>Orthetrum coerulescens</i>	Keeled Skimmer	6 <sup>th</sup> August	1 <sup>st</sup> September
<i>Sympetrum danae</i>	Black Darter	14 <sup>th</sup> June	29 <sup>th</sup> October
<i>Sympetrum sanguineum</i>	Ruddy Darter	15 <sup>th</sup> July	6 <sup>th</sup> September
<i>Sympetrum striolatum</i>	Common Darter	7 <sup>th</sup> June	2 <sup>nd</sup> November



## Species Summary

A total of 26 species were recorded in 2017 comprising 16 dragonfly and 10 damselfly species. This represents 1 less dragonfly (no repeated sighting of the rare Lesser Emperor) and 1 less damselfly species (no Scarce Blue-tailed Damselfly records) than in the 2016 flight season.

Common and widespread species were as usual recorded more frequently with **Azure Damselfly** producing the most damselfly records. **Banded Demoiselle** and **Large Red**

**Damselfly** and to a lesser extent **Blue-tailed Damselfly** also produced good numbers of records. Interestingly **Common Blue Damselfly** sightings decreased for the 2<sup>nd</sup> year in succession with only 33 records which seems surprising for such a common species. Conversely the number of **Beautiful Demoiselle** records increased from 15 in 2016 to 40 in 2017. This increase along with some unusual sightings of this species is discussed further in the individual species reports.

With regards to dragonflies the **Brown Hawker** produced the most records followed closely by the **Common Darter**. The latter is typically the most recorded dragonfly but Common Darter did on first impression seem less abundant during 2017. Even though a high number of Common Darter records were received relative to other dragonfly species there were still only 50 in total- a noticeable decrease from the 77 records of 2016. Fairing somewhat better were **Emperor Dragonflies** with 35 records exceeding the 23 of 2016. Again on first impression (to me and other recorders) they certainly seemed to be everywhere, though it must be noted that these observations are directly affected by recorder effort.



Emperor Dragonfly ruling the skies this summer.  
Photo: S. Barlow



Near miss for an Emperor ducking out the way!  
Photo: J. Shields

With regard to species distributions, records show 4 species have been found in new county hectads (10km squares). **Black-tailed Skimmer** showed the greatest increase in range being found in 2 new hectads, SJ30 and SJ71 (west and east of the county respectively). This continues an increase in range now seen over 3 years - being recorded in 3 new hectads in 2015 and 1 new hectad in 2016. **White-legged Damselfly** was recorded in 1 new hectad (SO59) and interestingly was recorded in 2



Fabulous male White-legged Damselfly  
Photo: D. Williams

new hectads during 2016 and found in notably large numbers in 2015. This comes at a time when the BDS is looking into a possible decline in this species which on first impression does not seem to be the case in Shropshire.

**Red-eyed Damselfly** and **Beautiful Demoiselle** were the other 2 species recorded in new county hectads during 2017 and both are discussed in the individual species reports below. **Ruddy Darter** is also worth a mention having been recorded at Prees Heath Common Reserve for the first time in 2017. This species also increased its county hectad distribution in 2015 and again 2016.

In general terms I and other recorders have noticed an overall lack in abundance particularly of damselflies. Stephen Barlow is a regular recorder at Whixall Moss and for the second year in a row has noted the lack of high numbers both in and amongst the vegetation and seen out in open water ovipositing. Stephen also noted this year the seemingly higher levels of predation by small birds such as Stonechats, Reed Buntings and Meadow Pipits that were frequently seen gleaning larvae from vegetation prior to emergence. It is possible as Stephen suggests that generally lower numbers of insects are leading predators to focus on dragonflies and damselflies as easy pickings - certainly during the vulnerable stages of emergence.



Stonechats hungry again...this time the larval entrée....most likely Four-spotted Chaser.  
Photo: S. Barlow

## Individual Species Reports



### **Common Clubtail** ***G. vulgatissimus***



Common Clubtail enjoying a large Mayfly lunch!  
Photo: J. Shields

Thanks once again to David Tompkins and Genevieve Dalley of the BDS for coordinating a second Clubtail Survey during 2017- this time focusing on a number of rivers throughout the UK. The big local news was the first evidence of Clubtail breeding on the River Vyrnwy. This river flows along our border with Wales from Llanymynech to Crewgreen where it joins the River Severn. Historic records of adult Clubtail have been made on the River Vyrnwy; in 1940 near Pentreheylin Hall by H. St. J. K. Donisthorpe and recently in 2013 near Pwll (SJ316192) by Keith Fowler and Pete Boardman. David Goodwin, Genevieve and David Tompkins were

the first to find a number of Clubtail exuviae on the River Vyrnwy just upstream of Melverly on the English side of this border river. David Tompkins had hoped to find proof of breeding so it's great all the hard searching work paid off! Here in Shrewsbury I was amazed to find so many exuviae on the River Severn- right in the middle of town emerging in and around the fishing platforms in the Quarry Park. Sometimes up to 20 exuviae and a number of emergents spotted with ease- a real treat and worth keeping an eye on from May this year. I believe there are plans to repeat the survey in 2018 so keep an eye on the BDS website for details if you wish to get involved.



### **Beautiful demoiselle** ***C. virgo***

This species had an interesting year with recorded sightings increasing from just 15 in 2016 to 40 in 2017. In addition Beautiful Demoiselle increased its county hectad distribution by 1 (SJ53 in north Shropshire). A number of records were also made at still water sites including Warwick Davies' garden pond in Oswestry, some distance from the nearest 'suitable habitat' and a number of sightings made on drainage ditches at Whixall Moss by Stephen Barlow. Stephen saw 3 males holding territory in a ditch on one occasion so these don't appear to be chance sightings. He thinks the ditches may ultimately drain into the River Roden and suggests the larvae may be



Fabulous male Beautiful Demoiselle  
Photo: R. Parnell

pushing further up these water channels and therefore accessing the ditches. Interestingly, further afield Beautiful Demoiselle is reportedly expanding its range from predominantly southern and western areas of the UK. During 2017, the first county record was made in Cambridgeshire and new records came from Buckinghamshire and Northamptonshire (Perrin, 2017c).



## Red-eyed Damselfly

*E. najas*



Red-eyed Damselfly spotted at Venus Pool for the first time in 10 years.  
Photo: J. Almond

This species seemed to feature quite heavily during 2017 with a number of recorders reporting high abundance in a number of locations. Sue Loose said she'd 'never seen so many' on parts of the Montgomery Canal and 'every lily pad or group of pads was occupied' with the Red-eyed being 'by far the most numerous species.' Jim Almond also recorded this species at Venus Pool. This represented the second ever record at this frequently recorded site (the first made by Graham French in 2007). It was therefore no surprise to

find out Red-eyed Damselfly had increased its distribution within the county by 1 hectad. Sadly the **Small Red-eyed Damselfly** *Erythromma viridulum* remains as elusive as ever in Shropshire...



## Downy Emerald

*C. aenea*



Downy Emerald in flight at Ebury Hill in 2016.  
Photo: J. Almond

During 2017 I visited all the known locations for Downy Emerald with mixed results. Ebury Hill, having received a good number of records in 2016, sadly had no records in 2017. Berrington Pool also failed to produce any sightings, an adult not seen at this location since 2011 and an exuvia found in 2012 (both recorded by John Balcombe). On a more positive note however I did see Downy Emeralds at Shomere and with much relief at Bomere. The latter

site had 2 males holding territory – the first individuals seen since 2013 which is great! It should be noted that Bomere, Shomere and Berrington Pool are private sites though the latter can be accessed with permission- please contact me if interested. In addition the quarry at Ebury Hill forms part of Ebury Hill campsite and access is only available to those staying there.

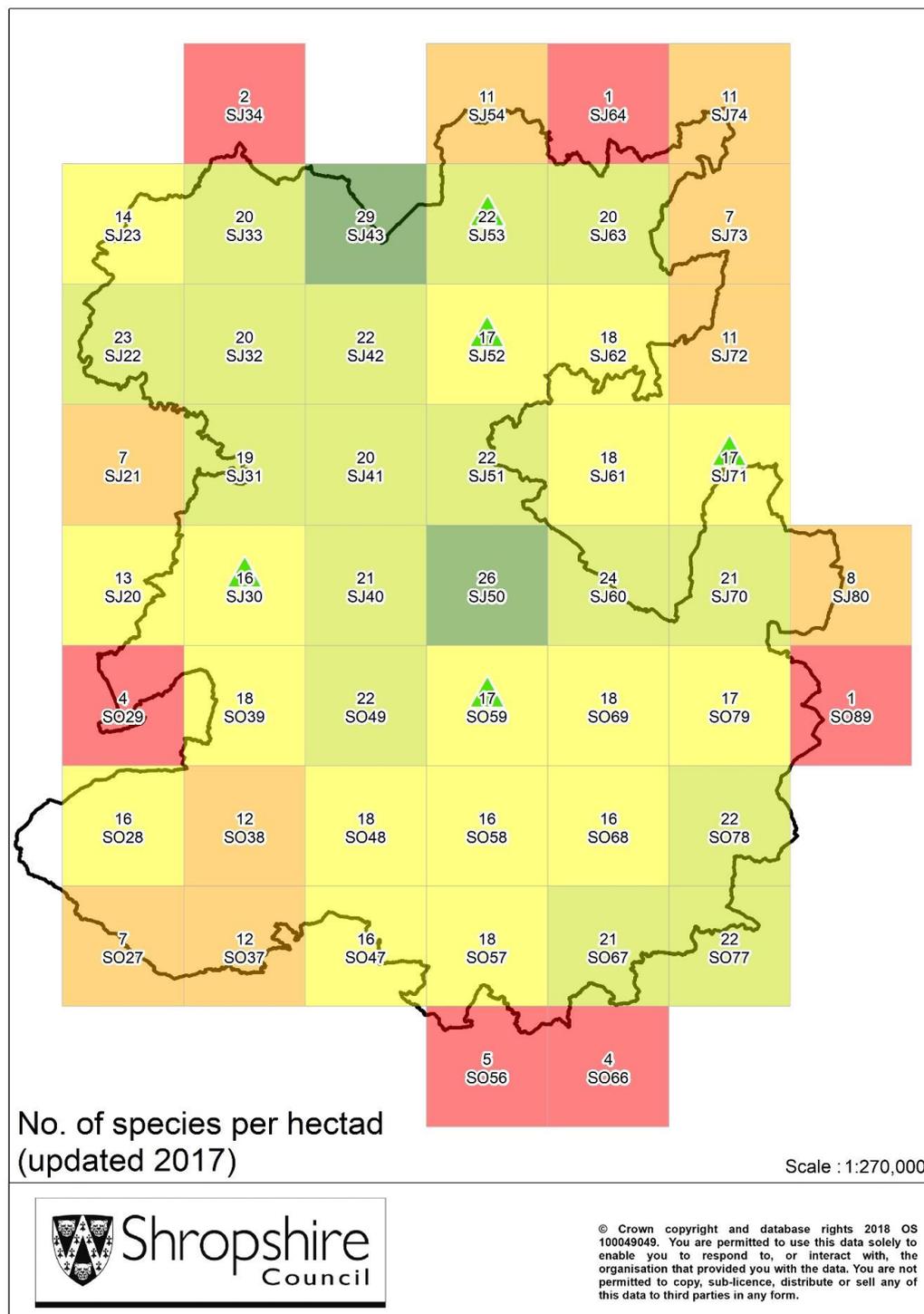
## Missing In Action...



- ✈ **Scarce Blue-tailed Damselfly** *Ischnura pumilio*- though a rarity, this species is usually recorded each year at Titterstone Clee Hill. No Shropshire records in 2017, but an unconfirmed report of a sighting over the border in Wales on Whixall Moss. Definitely worth a good look this summer from mid June onwards.
- ✈ **Hairy dragonfly** *Brachytron pratense* –following the 2013 record made by B. Smith at Whixall Moss there have been no sightings. Known to be present in Cheshire so there remains the possibility it may be seen again in Shropshire. Typically the first hawkmer dragonfly on the wing in mid-May so be on the look out near clean water with lush surrounding vegetation and nearby shelter (Brooks, 2004).
- ✈ **Vagrant Emperor** *Hemianax ephippiger* –following the first ever Shropshire record made by G. Hiatt on 23<sup>rd</sup> November at Muxton Marsh (SJ715132) in 2013 there have been no local reports of this incredibly rare migrant. Further afield it was an incredible year for this species with March sightings in Cornwall, Isles of Scilly, Devon and Dorset (Perrin, 2017a). October produced another flurry of records in these same locations with the addition of Hampshire and Manchester (Parr, 2017) proving this is always a species to be aware of if warm winds from the south are prevailing.
- ✈ **Lesser Emperor** *Anax Parthenope* - following the first ever Shropshire record made by P. Hope on 20<sup>th</sup> June near Fenemere in 2016 there have been no further sightings. Again, elsewhere in the UK there were a good number of sightings mainly from eastern England in June (Perrin, 2017b) and closer to home in Staffordshire at Belvide Reservoir on 17<sup>th</sup> July (Perrin, 2017c).
- ✈ **Red-veined Darter** *Sympetrum fonscolombii* – remains unrecorded since the 2012 sighting at Venus Pool. As with other migrants this was a good year for Red-veined Darters elsewhere in the UK. Seen at a good number of locations, but notably Cumbria on 9<sup>th</sup> June (Perrin, 2017b), Staffordshire on 17<sup>th</sup> July (Perrin, 2017c) and a number of records in Wales during September and October (Parr, 2017). Definitely one to keep an eye out for!
- ✈ **Yellow-winged Darter** *Sympetrum flaveolum* - no Shropshire records since the mid 1990's. One record made at Fairburn Ings, Yorkshire on 7<sup>th</sup> August, 2017 (Perrin, 2017c). Always an outside chance they may revisit Shropshire.
- ✈ **Scarce Chaser** *Libellula fulva* –still living up to it's name! There remains only 1 Shropshire record ever made at Attingham Park in June 2008 by J. Balcombe. This species has a relatively early flight season emerging on mass in early May and is typically found on neutral or base-rich muddy slow flowing small rivers, dykes in floodplains and water meadows (Smallshire & Swash, 2014).

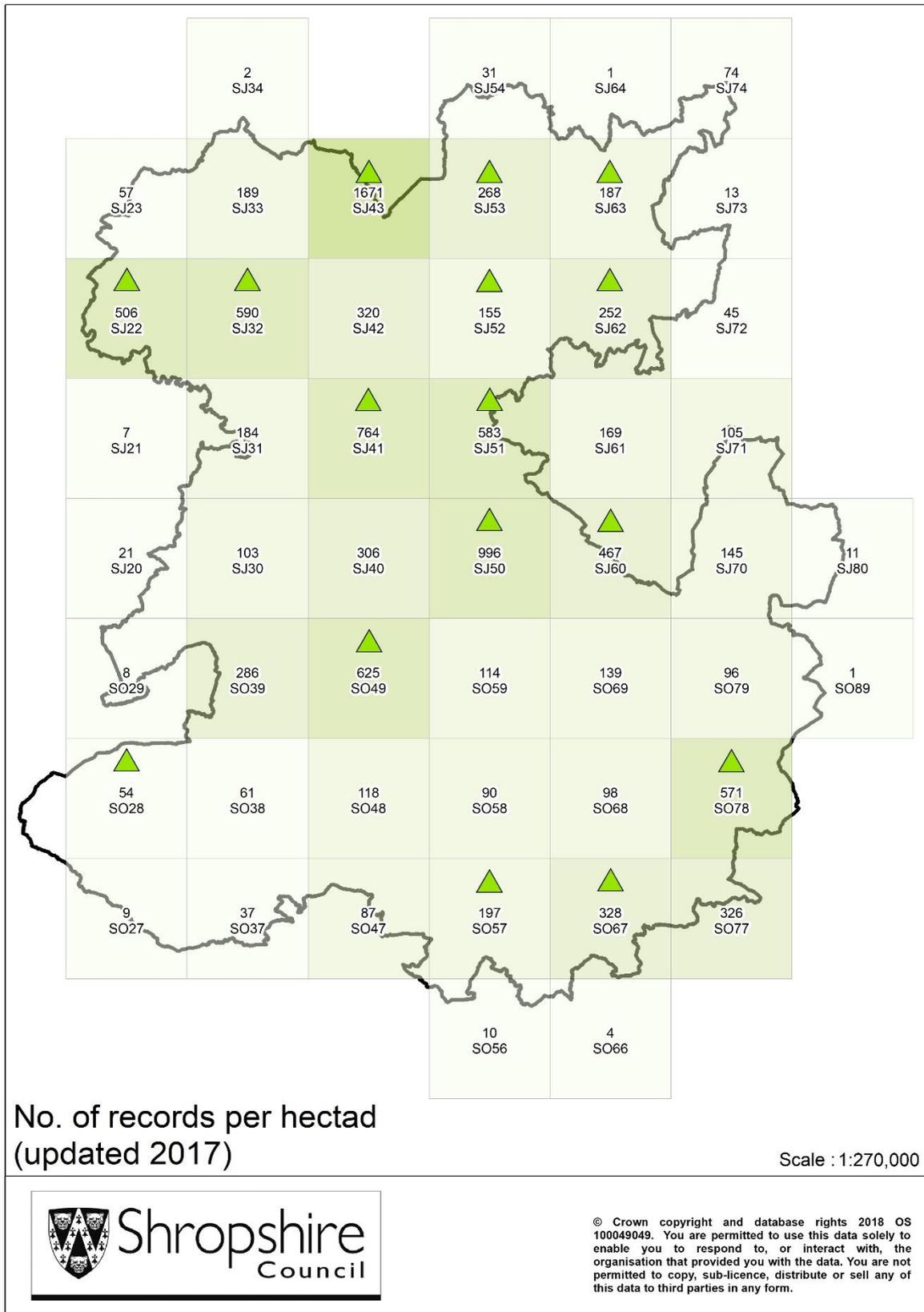
## Recording Update

Richard Hammerton (Biodiversity Data Officer for Shropshire Council) has kindly produced 2 maps that illustrate the impact of records received in 2017. Map 1 shows those 10km squares that have seen an increase in species (marked with green triangles). The yellow, orange and red squares show those hectads with the fewest species recorded- border squares often being low simply due to lack of recording. If you are looking for suggestions it would be great to receive more records from any of these areas.



Map 1 : Species Richness by Hectad in 2017

The second map illustrates the number of records in total made in each hectad. The green triangles indicate hectads with a significant increase in number of records submitted during 2017.



Map 2 : Number of Records per Hectad

As I indicated last year, Map 2 shows the huge number of records (now 1671!) accumulated over the years in SJ43 due largely to Whixall Moss – the best accessible site in Shropshire. Map 2 is a really good reference point for seeking out areas in Shropshire that are comparatively under recorded - and indeed where there is every chance of making new species records for a hectad. If you have the time and transport please do take a look in these areas, but please ensure if the site is not open to the public you find out who owns it and request the necessary permission.

I included the recording information below in last years newsletter, but as it is still useful and very relevant I have taken the liberty of including it again.

As technology advances biological recording is changing dramatically with an increasing number of you using **iRecord** to enter your records and indeed the BDS encouraging people to do so. If you do use iRecord a specific **Dragonfly Recording Form** developed by the BDS can be used which allows you to specify life stage. This can be found by looking under Record >Activities >search for British Dragonfly Society and click the gold star to add it to your activities. In addition it is statistically useful if you can declare if the list is a **complete list** ie. all species visibly present at a location. This requires ticking a further box when entering records and **if sending your own spreadsheet then please add a new ‘complete list’ column and tick where appropriate.** This allows the BDS to do more robust trend analysis which is important given the climatic changes we are seeing. The BDS are also working toward a ‘State of Dragonflies’ report to be published in 2020 so your records are as important as ever as they will feed into this publication.

The BDS website has detailed information on the different levels of dragonfly recording and how the resultant data can be used. The levels range from casual ad hoc records to complete lists to actually **adopting a local site** whereby you carry out complete lists at a named location two or three times between May and September over successive years. All levels of recording are welcomed and the records always gratefully received. It is thanks to all your efforts that in recent times year on year we have found species occupying new hectads within our county. If you wish to know more about the recording structure get in touch or have a look at the BDS website.



Banded Demoiselle exuvia stuck to the muddy banks of the River Severn.  
Photo: A. Beech

## **STILL Coming Soon to a Pond Near You.....**

Sorry to include this yet again, but it's almost become a tradition and the first county record is still to be made! It is very likely that we have **Small Red-eyed Damselfly** *Erythromma viridulum* in Shropshire and no one's found it. This species is present in Worcester and Cheshire and surely we are next? Let's see if 2018 heralds the arrival of the Small Red-eyed Damselfly.... I have included again the main identification tips that differentiate between this species and **Red-eyed Damselfly** *E. najas*.



The male Small Red-eyed Damselfly has bright red eyes – often described as a brighter ‘tomato’ red than the deeper ‘burgundy’ red seen in the Red-eyed Damselfly. The blue colouration on the abdomen extends onto the sides of segment 2 from the thorax and onto segment 8 from

segment 9. In addition a black X mark can just about be seen here on the dorsal surface of segment 10. When at rest the wings extend just beyond the join between segments 6 and 7 (Brooks, 2004).

In contrast the wings of the Red eyed Damselfly extend further down the abdomen upon which there is far less blue colouration. Segments 1, 9 and 10 are blue, but this does not spread onto segments 2 or 8. In



addition there is no black X mark seen on the dorsal surface of segment 10.

Any records of Small Red-eyed Damselfly received will be a first for Shropshire so it is important to try and get some good photographs highlighting those diagnostic features listed above. Even if you don't manage to get photographs please let me know where you think you've seen them and I'll come and take a look.

## A New Year and a New Shropshire County Dragonfly Recorder

Amazingly it's been 8 years since I took on the role of County Recorder and I'm really pleased to be handing over to Vicky Nall this February. It's great to have a fresh pair of eyes overseeing our Shropshire Dragonflies and Vicky's really keen to get started and introduce herself:



Stunning in-flight shot of the gregarious Southern Hawker.

*'I'm a consultant ecologist with a real passion for dragonflies. They have always fascinated me. In 2012-2013, I was instrumental in getting the White-faced Darter reintroduction project for Cheshire Wildlife Trust off the ground, and would regularly give talks and run identification training courses. I trained a team of volunteers to survey dragonflies along a series of transect routes in Delamere forest and to help with exuviae counts of the new population of White-faced Darter as well as the existing donor populations. I now work as a consultant and do not get much chance to work with dragonflies as part of my job so I am very much looking forward to them playing a bigger part in my life again. I look forward to receiving all you records and very much hope I can continue the good work done by Sue!'*

Vicky Nall

## Shropshire Dragonflies Website

I may be passing on County Recorder duties but I can't completely disappear (!) and this year I'll still be managing the Shropshire Dragonflies Website and running the Shropshire Dragonfly Watch



flight season blog. All contact forms from the website will automatically be directed firstly to Vicky so she can gather any records and then she will pass on any blog information to me. If you are already a regular dragonfly recorder and photographer then please do feel free to contact me with photos or observations for the blog to my normal email, but records should also be sent to Vicky. All the dragonfly courses that I am running in 2018 are now listed on the website and if you are aware of any other dragonfly events I will happily add them to the events page.

I really hope the blog continues to be a success and a useful addition to the flight season. I've decadently used the entire next page to share 5 stunning photos from last year's blog. If you haven't yet seen it take a look and in 2018 please send in some sightings:

<http://www.shropshiredragonflies.co.uk>



These 3 photos show a dramatic encounter between an Emperor and a Common Hawker which resulted in the Common Hawker entering the water and getting pond weed caught around it's neck. After much thrashing about thankfully the Common Hawker freed itself!



Emerald Damselfly in trio not tandem!



Common Blue Damselfly taking a risky break on the back of a Brown Hawker.  
Photo: D. Williams

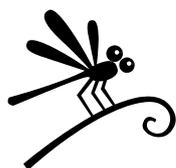
## The Last Word..

..and it really is as next years newsletter will be in Vicky's capable hands. I've thoroughly enjoyed holding the County Recorder post and building the Shropshire Dragonflies website into something to hopefully be enjoyed by all enthusiasts. As I said above, I'll still be teaching dragonfly courses and running the website and flight season blog so I won't be disappearing in a puff of smoke! Thank you so much for all the records and photographs you have sent in over the years. I have thoroughly enjoyed getting out and about recording Shropshire's dragonflies and it has been down to all of you that I have had so much to talk about at the end of each year! Please do keep all your records coming in for Vicky as it is your continued interest that ultimately provides us with vital information to help us conserve our fabulous Shropshire fliers!

Fingers crossed as ever for a tropical 2018 and enjoy the dragonflies!



The striking eyes of the Golden-ringed Dragonfly.  
Photo: J. Shields



## References

Brooks, S. (2004) **Field Guide to the Dragonflies and Damselflies of Great Britain and Ireland**. 4<sup>th</sup> ed. Hook: British Wildlife Publishing.

Parr, A. (2017) Wildlife Reports: Dragonflies. **British Wildlife**, 29(2): 127

Perrin, V. (2017a) Wildlife Reports: Dragonflies. **British Wildlife**, 28(5): 357

Perrin, V. (2017b) Wildlife Reports: Dragonflies. **British Wildlife**, 28(6): 432

Perrin, V. (2017c) Wildlife Reports: Dragonflies. **British Wildlife**, 29(1): 50

Smallshire, D. and Swash, A. (2014) **Britain's Dragonflies. A field guide to the damselflies and dragonflies of Britain and Ireland**. 3<sup>rd</sup> ed. Hampshire: Wild Guides