

Shropshire (VC40) Dragonfly Newsletter



Spring 2023
Sue Rees Evans

Introduction

It feels like spring already...the sun is shining and bees are flying passed my window so it's high time for the newsletter before the next flight season is upon us!



Eye to eye with Large Red Damselfly! 5 eyes to be exact; 2 compound and 3 simple ocelli in a triangular shape in the centre of the head.

Photo: J. Cartwright

As ever I'm very grateful to all of you who went out and about last year recording our Shropshire dragonflies. I just have to spend a few moments in the company of a majestic (often very close!) Southern Hawker to remember what fabulous insects dragonflies are and how important it is that we do all we can to conserve them in changing times. I'm often asked what we can do to help dragons and damsels and the best answer is to provide more breeding habitat in the shape of ponds. Having just moved house last May we have dug a large new pond in the hope of attracting and supporting many winged residents in

2023 and beyond. Though our pond is large, every year I get reports of damselflies emerging from ponds as small as dog beds and planters so it's surprising what you can do even with very little space.

Keeping an eye on our Shropshire species is also a great way to help and last year I received around 800 records which nowadays almost all arrive through iRecord. 2022 was not a record breaking year though species did emerge generally early and in some cases persist for longer than expected. Long periods of hot dry weather undoubtedly enables individuals to last longer though these same conditions also seriously impact important breeding areas such as shallow upland pools that simply dry out. Changing times mean your records are more important than ever so **please do read the Recording Update** to make sure we can use the information you send.

The **Shropshire Dragonfly Watch** flight season blog again benefitted from many of your fabulous photographs offering such a great insight into the brief but spectacular lives of these insects. A good number of these have been used to illustrate this newsletter. The **Shropshire Dragonflies Website** has just been updated with the first events for 2023 and also a new link to **Shropshire's Biodiversity Dragonfly Hotspots** -a really useful tool for planning your 2023 dragonfly recording- fully explained later in this newsletter. If you read on you will also find once more the information on the **Willow Emerald Damselfly**. Surprisingly this remains unrecorded in Shropshire and is definitely the one to watch out for in 2023...

Flight Season 2022

The Shropshire flight season began as it so often does at Whixall Moss where Stephen Barlow recorded 4 **Large Red Damselfly** *Pyrrhosoma nymphula* on 16th April. This



A very odd looking Large Red Damselfly that sadly failed to develop normally.

Photo: J. Almond

was just one day later than in 2021 and a week later than the earliest ever Shropshire record.

Four-spotted Chaser *Libellula quadrimaculata* followed on

April 21st just 2 days later than the earliest ever Shropshire sighting made in 2019. **White-**

facéd Darter *Leucorrhinia dubia* was then seen on 29th

April about a week later than the earliest record. April 29th

also hailed the arrival of

Variable Damselfly

Coenagrion pulchellum just 3 days later than the Shropshire record, then **Blue-tailed**

Damselfly *Ischnura elegans* was recorded on 30th April representing an early sighting 2 years in a row.

So no new records were set in 2022 though relatively mild conditions meant emergence was generally early with a total of 6 species on the wing in April. This trend was mirrored across England with 15 species seen on the wing in April which is significantly above the long-term average for the time of year (Parr, 2022a). Parr goes on to state that these records reflect the mild winter and warm start to spring with the mean March/April temperature in central England being 1.5 above the 1961-1990 average.

Such early emergences contributed in some cases to unusually long flight seasons.

Broad-bodied Chaser

Libellula depressa was

recorded early on April 29th

(only 2 other April records exist) and latterly on 10th

August 2022. Only a handful of

other August records exist for this species though 2 very late

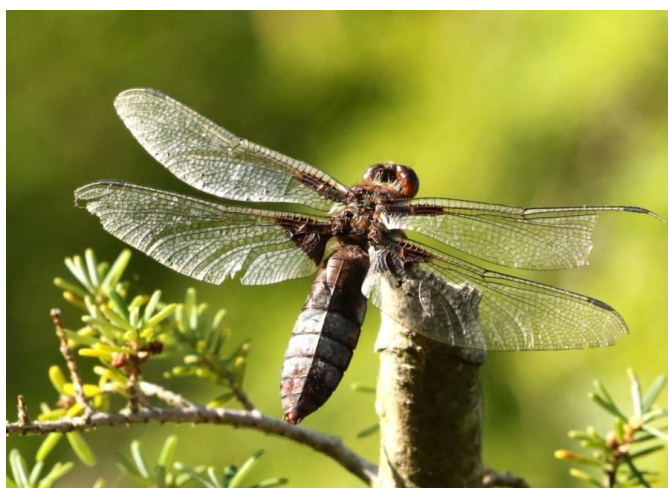
records have been made

historically, the latest being 21st

September 2008. **White-faced**

Darter after an early start had a

similarly long flight season being recorded as late as 6th August. Late records are very rare with only 2 historically exceeding this date both made in 1999 on 22nd August and apparently 5th September! In a similar vein, a late **Four-spotted Chaser** was reportedly seen on Whixall Moss on 25th October though this was unconfirmed.



A very late Broad-bodied Chaser recorded at The Bog, Stiperstones.

Photo: G. Hall

At the other end of the flight season mild weather indicated again records may be broken but **Common Hawker** *Aeshna juncea* and **Black Darter** *Sympetrum danae* were last recorded on 25th October, a good few weeks short of the November records made the previous year. Only **Common Darter** *Sympetrum striolatum* was recorded in November by myself near Earl's Hill, Pontesbury on 14th November. This is in stark contrast to 2021 when 4 species were recorded in November, the latest being Common Darter recorded by Stephen Barlow on 25th November at Whixall Moss.

Elsewhere across England the extremely hot dry summer did not seem to be accompanied by a great abundance of dragonflies and it is possible that the extremely hot weather may have in fact 'condensed' the flight season (Parr & Chelmick, 2022).



A stunning photo of a recently emerged Four-spotted Chaser.
Photo: J. Almond

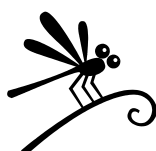


Upon reflection this Four-spotted Chaser was easier to identify in the water than looking at the individual! Photo: Curious Raven

The table below shows the first and last dates for those species recorded in Shropshire in 2022, but it is important to understand that these are directly influenced by recorder effort and the sites visited. **Red** = Shropshire record **Blue** = notably early/late, but not a county record

First and Last Recorded Sightings 2022

Species	Common Name	Date of first record	Date of last record
<i>Calopteryx splendens</i>	Banded Demoiselle	10 th May	14 th August
<i>Calopteryx virgo</i>	Beautiful Demoiselle	15 th May	14 th August
<i>Lestes sponsa</i>	Emerald Damselfly	17 th June	24 th September
<i>Coenagrion puella</i>	Azure Damselfly	7 th May	8 th August
<i>Coenagrion pulchellum</i>	Variable Damselfly	29 th April	18 th May
<i>Erythromma najas</i>	Red-eyed Damselfly	18 th May	1 st August
<i>Erythromma viridulum</i>	Small Red-eyed Damselfly	27 th July	31 st August
<i>Pyrrhosoma nymphula</i>	Large Red Damselfly	16 th April	27 th July
<i>Enallagma cyathigerum</i>	Common Blue Damselfly	18 th May	31 st August
<i>Ischnura elegans</i>	Blue-tailed Damselfly	30 th April	31 st August
<i>Platycnemis pennipes</i>	White-legged Damselfly	18 th May	4 th August
<i>Aeshna cyanea</i>	Southern Hawker	16 th June	19 th October
<i>Aeshna grandis</i>	Brown Hawker	22 nd June	20 th September
<i>Aeshna juncea</i>	Common Hawker	23 rd June	25 th October
<i>Aeshna mixta</i>	Migrant Hawker	27 th July	2 nd October
<i>Anax imperator</i>	Emperor Dragonfly	16 th June	14 th August
<i>Gomphus vulgatissimus</i>	Common Club-tail	10 th May	17 th June
<i>Cordulegaster boltonii</i>	Golden-ringed Dragonfly	17 th June	31 st August
<i>Cordulia aenea</i>	Downy Emerald	27 th May	28 th May
<i>Leucorrhinia dubia</i>	White-faced Darter	29 th April	6 th August
<i>Libellula depressa</i>	Broad-bodied chaser	29 th April	10 th August
<i>Libellula quadrimaculata</i>	Four-spotted Chaser	21 st April	16 th July
<i>Orthetrum cancellatum</i>	Black-tailed Skimmer	8 th June	31 st July
<i>Orthetrum coerulescens</i>	Keeled Skimmer	11 th August	11 th August
<i>Sympetrum danae</i>	Black Darter	15 th June	25 th October
<i>Sympetrum sanguineum</i>	Ruddy Darter	13 th July	20 th August
<i>Sympetrum striolatum</i>	Common Darter	14 th June	14 th November



Species Summary

A total of 27 species were recorded in 2022 comprising 16 dragonfly and 11 damselfly species. The species recorded are identical to those seen in 2021 and though 34 species have at one time been recorded in Shropshire this includes rare migrants, transient species and occasional rarities that do not cross our borders with any regularity.

Common and widespread species were as usual recorded more frequently with **Large Red Damselfly** again producing the most damselfly records followed by **Azure Damselfly**. These both emerge early in the flight season and are regulars at garden ponds which undoubtedly boosts the numbers of records. With regards to dragonflies again it was three 'garden pond regulars' that produced good numbers of records;

Common Darter, Southern Hawker and Brown Hawker.

In the last newsletter (Rees Evans, 2022) I highlighted the surprisingly large number of **Black Darter** records received in 2021. This followed the publication of the **State of Dragonflies Report in Britain and Ireland 2021** (Taylor et al, 2021) in which **Black Darter** was listed as a declining species alongside **Common Hawker** and most notably **Emerald Damselfly**. It is interesting to note that in 2022 the numbers of Shropshire records of these 3 species all declined, most dramatically with 49 **Common Hawker** records reducing to just 13 and **Black Darter** records reducing from 97 to 36. It should be noted this is a casual observation and not a scientific study, but all 3 of these species are frequently recorded at Whixall Moss where regular transects are monitored and contribute a good proportion of the records I



Keeping an eye on Emerald Damselfly!



Fabulous inflight shot of Common Hawker on Titterstone Clee Hill.
Photo: A. Warr

receive. It would be interesting to see if Fenn's, Whixall and Bettisfield Mosses NNR have more robust evidence of this potential decline. These 3 species inhabit acidic upland ponds with **Emerald Damselfly** and **Black Darter** particularly favouring shallow fish free waters for their rapidly developing larvae. If long spells of extreme hot dry weather continue these

Photo: J. Shields

habitats will be first to dry out and reports are already suggesting these species may well have been affected by the dry conditions seen in 2022 (Parr & Chelmick, 2022).

Golden-ringed Dragonfly was also listed as a declining species in the 2021 report (Taylor et al, 2021) but in Shropshire 2022 produced almost double the number of sightings, and even a report of ‘masses’ seen at Cramer Gutter alongside good numbers of **Keeled Skimmer**. In addition 2 individuals were recorded at Cefn Coch north west of Oswestry which is reportedly an area adjacent to moorland with a stream and bogs. This represents a new location for this species some distance from previous Shropshire records.



Banded Demoiselle emerging from the River Severn. Photo: M. Ashton

Interestingly our **Demoiselle** species also fared well both **Banded** and **Beautiful** roughly doubling the number of sightings from the previous year. Staying with our river species **Common Clubtail** was also well recorded particularly in The Quarry, Shrewsbury where emergence can often be seen, but also further afield at Llanymynech Rocks.

Tantalisingly yet again there was a strong possibility that **Hairy Dragonfly** was seen at Whixall Moss on 18th May, but unconfirmed. This species was confirmed at this location in 2013, but glimpses remain fleeting!



Common Clubtail emerging in The Quarry, Shrewsbury. Photo: J. Allaway



A pair of clubs! Photo: M. Rogers

Individual Species Reports



Small Red-eyed Damselfly *E. viridulum*



Small Red-eyed Damselfly taking a rest at Shropshire Hills Discovery Centre, Craven Arms. Photo: G. Hall

After much anticipation **Small Red-eyed Damselfly** finally came to Shropshire in 2019. Spotted by Bob Pugh at Stokesay on 24th July 2019, then by Meurig Garbutt at Dudmaston and finally Mick Richardson at Green Pond near Albrighton. The following year records were made again at Dudmaston and also Whixall Moss and Wellfield fishing pools in southeast Shropshire near the Wyre Forest. 2021 saw individuals at Shropshire Hills Discovery Centre and at Stokesay Castle

exactly where this species was first recorded in 2019.

With sightings again at Shropshire Hills Discovery Centre and Dudmaston in 2022 we can be fairly confident this species (like many of us!) is in Shropshire to stay. New sites for this species were also found by David Williams at Pasford Farm (south east of Telford right on the Shropshire border) and Telford Town Park where Jake Dudderidge reported good numbers in a pond by the university building and shopping centre including at least 1 tandem pair. All Shropshire records for this species were made in the second half of August so this is definitely the month to keep an eye out for these small dainty insects. Noticeably they tend to tilt their abdomens upwards and often are recorded resting on unappealing 'bubbly' algal mats floating on the surface as shown below.



2 new sites for *E. viridulum*; Telford Town Park (left) and Pasford Farm (right). Both sites show the algal mats that seem to appeal to this species!
Photo: J. Dudderidge (left) and D. Williams (right)



Downy Emerald *C. aenea*



Male Downy Emerald at Mousecroft Pool. Photo: J.Almond

observing the same male as all their photographs showed an identifying white mark visible on one of the hindwings. Despite a thorough search and much patience no others were recorded. There's no reason to believe lightning will strike twice and that this species will again be seen at Mousecroft, but it's definitely worth keeping an eye out at this very accessible pool and it's also a great reminder to expect the unexpected in these changing times!

For many years I have reported on the presence or absence of this species at a handful of sites in Shropshire, all of which are private. 2022 however surprisingly brought a 'public appearance' of **Downy Emerald** at Mousecroft Pool just south of Shrewsbury. This male was first spotted by Dave Chapman on 27th May ironically just as Jim Almond was failing to spot any at the usual haunts. Jim headed to Mousecroft the following day and photographed the same individual. Dave and Jim were confident they were



Vagrant Emperor *Anax ephippiger*



Male Vagrant Emperor 2018.

Photo: I. Anderson

individual is a male and has characteristically broad pointed anal appendages and a

It has only recently come to light that a second **Vagrant Emperor** has been recorded in Shropshire. Iain Anderson took this photo in Harlescott, Shrewsbury on 19th October, 2018 which his wife Jenny then sent to the British Dragonfly Society. The British Dragonfly Society Migrants Officer Adrian Parr verified the record and informs me that Oct 2018 did see a fairly major influx of this species. The majority of these sightings were however coastal so this was a great spot in the largest land-locked county in the UK! This

striking blue 'saddle' on segment 2 of the abdomen. The highlighted area (photo below left) also shows an area of the wing where the individual wing cells are arranged in 3 irregular rows rather than 2 as in other *Anax* species.



Expect the unexpected species



Many of us will have been amazed by shrubs bursting into bloom last November and I cannot believe I've just had to mow the lawn in February! Dramatic weather and in many cases milder weather are also having an effect on our wildlife. This has been discussed in the State of Dragonflies Report 2021 which highlights how 41% of Odonate species have increased in occupancy since 1970 and just 11% have shown a significant decline stating that the underlying causes are complex though climate change and habitat quality and quantity are important (Taylor et al, 2021). In light of things changing in uncertain times I just wanted to highlight a few extraordinary sightings made outside Shropshire during the last flight season:

- ✈ **Norfolk Hawker *Aeshna isosceles*** - Previously rare and very localised but in recent years starting to spread in the UK and most likely breeding successfully in areas well away from Norfolk. Most dramatically recorded in Greater Manchester in June 2022 (Parr, 2023).
- ✈ **Common Winter Damselfly *Sympecma fusca*** - second ever British record made in Hampshire in May, 2022. Typically found in southern and central Europe (Parr, A. (2022a).
- ✈ **Scarlet Darter *Crocothemis erythraea*** – a rare vagrant recorded at Minsmere Suffolk on 28th July 2022. Only a handful of Uk records for this species exist which is more typically found in Southern Europe (Mearns, 2022).
- ✈ **Yellow-winged Darter *Sympetrum flaveolum*** – recorded on 5th September, 2022 in East Yorkshire following a spell of easterly winds and constituting the first British record since 2015 (Parr, A. and Chelmick, D., 2022)

This is just a handful of strange 'goings on' in 2022 and merely a reminder to us all that whilst many of us have got very used to our local species we may just have some unusual visitors on the horizon!

Missing In Action...



- ✈ **Scarce Blue-tailed Damselfly** *Ischnura pumilio*- though a rarity, this species used to be recorded each year at Titterstone Clee Hill. No Shropshire records however have been made since 2016 so definitely worth a good look this summer from mid June onwards. A good population has been recorded in neighbouring Worcestershire at Ryall Water for the last 2 years and some of the stunning females are pictured below.
- ✈ **Hairy dragonfly** *Brachytron pratense* –**possible sighting at Whixall Moss** 18th May 2022 but unconfirmed. Recorded previously at this location in 2013 by B. Smith but then no records until 2020 when Richard Lamb saw 2 near Button Oak in the Wyre Forest. Previously also a rarity in neighbouring Worcestershire until it was surprisingly recorded 17 times in May/June 2020 at Ryall and Ripple and the Croome River (Averill, 2021). Consistent evidence now of breeding in Worcestershire so a reasonable possibility it may be seen again in Shropshire. Typically the first hawker dragonfly on the wing in mid-May so be on the look-out in late spring/early summer.
- ✈ **Scarce Chaser** *Libellula fulva* –still living up to it's name in Shropshire where there remains only 1 Shropshire record ever made at Attingham Park in June 2008 by J. Balcombe. In contrast doing well in Worcestershire and even described as 'increasingly widespread' further south where it is turning up at garden ponds (Perrin, 2021). 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, 2018).
- ✈ **Vagrant Emperor** *Hemianax ephippiger* –an **individual was photographed in Shrewsbury in 2018** (see individual species reports). This is the second Shropshire record following that made by G. Hiatt on 23rd November at Muxton Marsh (SJ715132) in 2013. Sightings elsewhere remain few and far between though individuals can turn up anywhere so this is always a species to be aware of if warm winds from the south are prevailing.
- ✈ **Lesser Emperor** *Anax Parthenope* - first recorded in Shropshire by P. Hope on 20th June 2016 near Fenemere then secondly in July 2019 by S.Barlow at Alderford Lake. No further sightings, but elsewhere in the UK there have been a good number of records from around 100 locations including multiple sightings at some indicating breeding is likely (Parr, 2023). Lesser Emperor was again recorded at Ripple Lakes in Worcestershire during 2022.
- ✈ **Red-veined Darter** *Sympetrum fonscolombii* – remains unrecorded since the 2012 sighting at Venus Pool. Some sightings elsewhere in Britain such as Cornwall, Norfolk and Pembrokeshire during 2022 though none close to Shropshire (Parr, 2023). Always one to keep an eye out for!

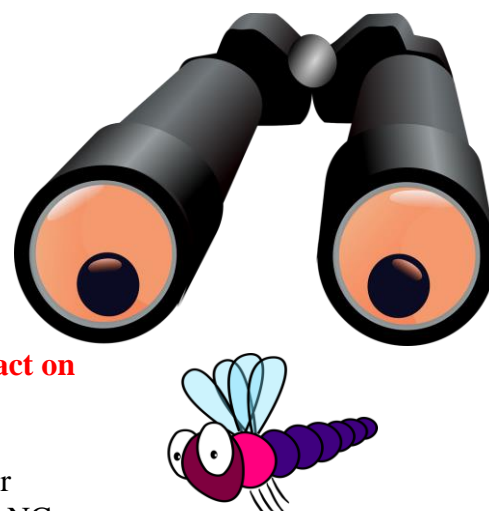
✿ **Yellow-winged Darter** *Sympetrum flaveolum* - no Shropshire records since the mid 1990's. As stated previously 1 solitary male surprisingly recorded in East Yorkshire on 5th September, 2022. This constitutes the first and only British record since 2015 (Parr & Chelmick, 2022). Always an outside chance they may revisit Shropshire if there is a large influx of migrants.





Stunning photographs illustrating the dramatic colour changes seen in female Scarce Blue-tailed Damselflies as they mature, then over-mature. All individuals photographed at Ryall Water, Worcestershire. Photo: A. Warr


Recording Update

The majority of recorders are now using iRecord to enter records or other systems such as iNaturalist and Birdtrack which get channelled into iRecord allowing me to verify them. The positive side of this is far more recorders putting in far more records so we have a better idea of how our dragonflies are faring. The negative side is managing the data in all its forms and in some cases maintaining the quality of records. The following text is largely repeated from last year, but is really **important so please read it and act on it if necessary to ensure your records can be used.**




 **iNaturalist:** If you use iNaturalist your record is given a default license : CC BY-NC. This means that **we cannot add it to the British Dragonfly Society data on the National Biodiversity Network.** This is because the BDS data is 'open' for people to view whereas CC BY-NC means you retain more control over the data and any media ie. attached photographs. iNaturalist records filter into iRecord and the upshot is I can verify these records but cannot add them to our data which is a great shame. The records mostly have attached photographs which is great for ease of verification and could also be great for posting on the Shropshire Dragonflies blog if the license allowed. The best current solution **if you use iNaturalist is to please alter your own default licensing to CC-BY.** This is called a Creative Commons Attribution and it allows individuals, governments, not-for-profits and commercial organisations to use the data without having to ask permission.

 **iRecord:** When using iRecord please use the specific **Dragonfly Recording Form** developed by the BDS as this allows you to specify the life stage. This form can be found by looking under Record >Activities >search for British Dragonfly Society and click the gold star to add it to your activities. It is also better if you have an iRecord account and login before entering your records.

 **Record quality:** Please where possible use a real name attached to your record. It is also 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 via iRecord and using the Dragonfly Recording Form. **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. Also please **record abundance** when you make species records. Presence or absence data alone gives us no real idea how populations of species are faring and a simple species list may give the impression

that dragon and damselflies are ok when in fact the actual numbers of each species are declining.

 **Timescales:** Where possible please get your records sent in asap after the end of the flight season and certainly by Christmas. This allows me to finish verifying them, analyse them and hopefully get a newsletter out before anything takes to the wing in April!

Please rest assured that I'm still very happy to receive spreadsheets of records and even records in the post and despite my long list above (!) all your records are still very gratefully received.

Where to record?

The Shropshire Dragonflies Website has a map highlighting those areas where most species have been recorded. Low species richness usefully gives a good indication of those areas less well recorded in Shropshire though dating back to 2016 this map is somewhat out of date. Shropshire Council's Carbon & Climate Project Officer Dan Wrench has produced a **Dragonfly Hotspot Map** using the Shropshire Ecological Data Network Odonata data. This is more up to date and allows the user to zoom into a particular 1km square and see which species have been recorded there. Furthermore each 1km square has a link directly to the NBN where you can access those species records in detail. This is a really great resource and can be accessed via the link below or via a direct link on the Shropshire Dragonflies website.

[Dragonfly Biodiversity Hotspots](#)

This should enable some recorders to locate and perhaps investigate some of our less well recorded areas. Please ensure that you are legally allowed to access these areas and always seek permission from the owner before going onto private land. For those with more time available it is also worth remembering that the BDS website has detailed information on the different levels of dragonfly recording. These 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 three times between May and September. If you visit a site several times a year and would be interested in 'adopting' it then please do get in touch.



Downy Emerald in flight at Mousecroft Pool.
Photo: J. Almond

Still Coming to a Pond Near You.....

Willow Emerald Damselfly

Chalcolestes viridis

This species was first recorded as 'one-offs' in the UK in 1979 and 1992 in Sussex and Kent. A female was then recorded in Suffolk in 2007 followed by numerous records in 2009 from 35 sites in East Suffolk, North Essex and south Norfolk (Smallshire & Swash, 2018). Since then Willow Emerald has become firmly established and is rapidly expanding its range both north and westwards. **During 2022 records were made in Crewe in Cheshire, Whitfield Country Park in Staffordshire and several sites in Warwickshire and Worcestershire (Parr, 2022b) so now it is north, south and east of us it cannot be long before the first record is made in Shropshire!**

Willow Emerald is usually seen from August onward found typically at sheltered standing water and slow flowing rivers with trees and shrubs overhanging the water from the banks. They egg lay into the overhanging twigs and branches (often but not exclusively willows) and this produces distinctive scars in the plant tissue.



Oviposition scars provide a record of species presence. Photo: © S. Cham



Male Willow Emerald Damselfly.
Photo: © S. Cham

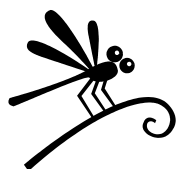
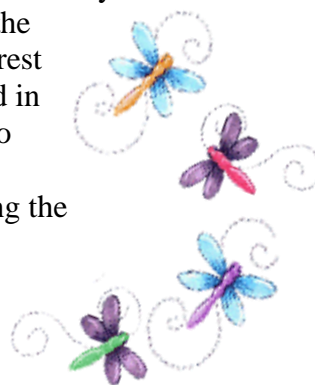
The only similar species we have in Shropshire is the fairly common and widespread Emerald Damselfly. Both species belong to the family Lestidae and both rest with their wings held open at 45°. Willow Emerald however has a far longer abdomen and large pale pterostigma (narrow and dark in Emerald Damselfly). Noticeably Willow Emerald mature males have no powder blue pruinescence and the eyes remain dark (not blue as in Emerald Damselfly). There are

further differences in the anal appendages and the extent of a dark spur on the side of the thorax and the full identification details can be seen on the Shropshire Dragonflies website 'coming soon' page. **Usefully we can look for evidence of this species during the winter months when the oviposition scars are easily visible. These scars are considered a positive record for this species** so please get in touch even if you think you have seen such marks but no sign of the adults.

The Last Word..

Thank you again for all your contributions last year. It is always interesting to collate all your information and hopefully give you an idea of what's happening dragonfly-wise in Shropshire. If you'd like to contribute an article in next years newsletter or advertise any dragonfly related Shropshire event on the website then please do get in touch. Your input and continued interest has never really been more important so please do continue to send in your records and photos so we are as well informed as we can be to conserve our fabulous Shropshire dragonflies!

I look forward to seeing some of you out and about enjoying the dragonflies in the glorious Shropshire summer of 2023!



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