

# Dragonfly News 82



*The Magazine of the British Dragonfly Society*  
**AUTUMN 2022**  
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British  
Dragonfly  
Society 

# Dragonfly News 82

The Magazine of the British Dragonfly Society

Published twice a year, in April and October, *Dragonfly News* covers all aspects of the British Dragonfly Society's field, recording, monitoring, research, conservation and social activities, as well as information from the wider dragonfly, natural history and conservation world. The emphasis is on dragonflies recorded in the UK.

The British Dragonfly Society aims to promote and encourage the study, conservation and understanding of dragonflies and their natural habitats, especially in the UK, and to raise public awareness of dragonflies.

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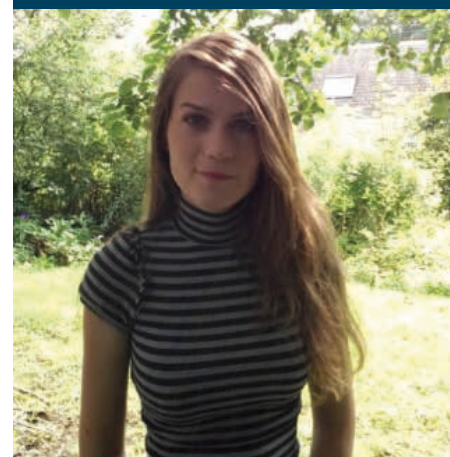
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Autumn 2022

## Editor's Notes



### Eleanor Colver

What a busy summer it's been here at the BDS! With no Outreach Officer I took over the role, which includes producing this magazine, and running our Hotspots Project. This year we launched two new partnerships: one at WWT Steart Marshes, Somerset, and one at Llangorse Lake, Brecon Beacons. You can read all about our launch events in this magazine, and I thoroughly recommend visiting these sites if you get a chance - both the dragonflies and the scenery are stunning!

I would also like to take this opportunity to welcome Lauren Kennedy, our new Conservation Outreach Officer, to the BDS team! She's already had the pleasure of meeting some of our volunteers (the best bit about working for the BDS) and we're sure she'll do an amazing job inspiring others to join #TeamDragonfly! Why not join our online Annual Meeting and AGM on 19 November and you can say hello to her in person. We have a great selection of speakers lined up covering topics such as how to find and record Willow Emerald Damselflies, and the power of urban wetlands.

While monitoring the BDS social media accounts it was wonderful to hear from all of you about your dragonfly sightings and wetland adventures over the season. Sadly many of you have reported that the heatwave dried up some of your local ponds and wetlands. Even our Scotland Officers reported the desiccation of upland dragonfly peatland sites. Improving the resilience of wetlands to drought conditions will obviously have to be a BDS priority moving forward.

### Cover Image:

**Southern Migrant Hawker by Douglas Wright**

Taken at Windmill Farm National Nature Reserve on The Lizard, Cornwall.

Twitter: @windmillfarmnn1





# Chairman's Report



## Brian Walker

It has been a relief to return to something closer to normality for the dragonfly flight season this year. We were able to hold launch events for our two new Dragonfly Hotspots without any restrictions and you can read about them later in the magazine. We were very grateful to the two members who made donations which covered the cost of interpretation boards at the two sites. The total of donations received so far for our Dragonfly Hotspots Appeal will also allow us to provide boards at some of our Scottish Dragonfly Hotspots which don't currently have them. The Appeal will continue to run because there remain Scottish sites without Boards and our aim is to continue to develop new Dragonfly Hotspots in England and Wales, as well as working with existing sites to increase their appeal.

For those of us in the south of England it has been a very dry and hot summer so far and water levels at sites that I visit are low and in some cases ponds have dried out for the first time that I can ever recall. While it means that these ponds will not allow dragonflies to breed this year, it is probably not a disaster in my area as there are other ponds and the dragonflies from these will recolonise the dried out ponds if we

have a more normal summer next year. However, what is normal now? The climate is changing and possibly hot, dry summers are going to become more common and be more of a threat to dragonflies, particularly if the changes occur rapidly and limit their ability to adapt.

While the impact of the dry summer where I live does not yet appear to be serious for dragonflies, it is a different story for upland bogs in Scotland where another dry summer has caused the shallow bog pools to dry out again. The bogs are important for a number of species which have a more northerly distribution. The problem is particularly serious for Azure Hawker, which has a long development period of around five years as a larva, and which seems to prefer the shallow pools which are most at risk of drying out. While other species such as Northern Emerald and White-faced Darter are also threatened, they breed in pools with a range of depths and hence the threat is somewhat lower.

We heard from Magnus Billqvist at our Spring Meeting how dragonfly

species with a more northerly distribution are retreating even further north in Sweden with a number now being rare in the southern regions of the country. It is a serious concern that the same will occur in Scotland with the Azure Hawker population in the south of Scotland already seemingly lost, but with nowhere for the remaining populations to retreat to. There may be actions that we can take to protect our species to some extent and we are looking in more detail at habitat requirements to identify key sites which we might be able to improve. For example, pools with a depth profile more resilient to dry summers that provide suitable habitat for larvae, and their prey, to retreat to as the water table falls.

There is of course an upside to climate change for us in this country and we have seen many species with a more southerly distribution expanding north and west within Britain and we are gaining new species from the continent. Early reports this year suggest that this trend is continuing with large numbers of Lesser Emperors being reported. There is a natural interest

Male Ruddy Darter at Llangorse Lake  
© Brian Walker



and excitement in finding something new. I found my first Willow Emerald Damselfly in Oxfordshire this year. They were first reported from Oxfordshire a couple of years ago, but this was the first I have found and it made my day, even more so because I was able to get a good photograph of it and get it posted on the local Dragonfly Blog.

Dragonflies make very attractive subjects for photographs and many people get interested in them through taking photographs. I did to some extent. I was checking my records and found that I took my first photograph of a dragonfly 50 years ago in September 1972. It was a Common Darter at Cliffe Pools in Kent. I was using a Pentax Spotmatic SLR camera which was state of the art at the time, but required manual focus and manual exposure. I took rather more pictures in the following year and spent time trying to identify the species from my photographs. This was not easy at the time as there was no internet or indeed a helpful Field Guide, until Hammond

was published in 1977.

These days digital cameras allow lots of pictures to be taken without worrying about the cost of film and technological advances in terms of focusing and now auto stabilisation, particularly in the latest mirrorless cameras, make it easier to get a decent photo and there is then plenty of help available to identify the species. There are still sufficient challenges to make it interesting and satisfying when you achieve a really good result and plenty of people are getting good shots and posting them for us all to enjoy. However, I hope that people are also remembering to record the species that they have seen and photographed. With all of the changes that are occurring, records are more important than ever to allow us to track what is happening and this is not just for the new species or our rarer species, but for all species. There are a range of potential threats and early indications of changes may allow issues to be identified and early action taken to address them.

As Tim Coleshaw reported in the last issue of Dragonfly News we have developed a five year strategy for the Society and this is now in place and more detailed plans are being developed to deliver that strategy. Lauren Kennedy has now joined us as Conservation Outreach Officer, replacing Fiona McKenna, and there is an introduction to her later in this issue. We would still like to recruit more experience to the Trustee Board to help us deliver the strategy. Being a dragonfly expert is not necessary, but having experience in business, finance, personnel or other management activities would be very welcome. The time commitment expected is not large but we are looking for individuals who can make a contribution that is beyond just attending meetings. I am happy to talk to anyone who might be interested in joining the Trustees.



WWT Steart Marshes Hotspot Lauch Event; making willow dragonflies © Pam Taylor





# Autumn Meeting & AGM

## 19 November 2022 Online

Join us for a day of talks from the BDS staff, volunteers and guest speakers including:

- BDS Breconshire County Dragonfly Recorder Keith Noble: Dragonfly Hotspot Llangorse Lakes.
- BDS Leicestershire with Rutland County Dragonfly Recorder Ian Merrill: Willow Emerald Damselflies.
- Junchen Deng, Jagiellonian University: Impact of Wolbachia bacteria on Blue-tailed Damselfly.
- WWT: Steart Marshes as a working wetland, and the power of urban wetlands.

More details to come. You can find information and book your FREE ticket via the events page of the BDS website: [www.british-dragonflies.org.uk](http://www.british-dragonflies.org.uk)

**Booking is required;** the event will be held via Zoom and Zoom log in details will be sent out by email.



Blue-tailed Damselfly  
© Iain Leach

The Trustees have proposed that a change is made to the British Dragonfly Society Constitution to vary the definition of a quorum at general meetings of the Society. The current requirement is as follows:

5(b) Subject to the following provisions, the quorum for general meetings shall be the greater of 3% or forty members. An organisation represented by a person present at the meeting in accordance with sub-clause (7) of this clause, is counted as being present in person.

The proposal is to change “greater” to “lesser” in this paragraph. The reason for this change is that our membership has grown and is now edging towards 2,000 which means the quorum would be at 60. Attendance at past general meetings has tended to be 70 to 80 depending on geographical location and other circumstances such as weather. We are now close to a situation where we might be unable to conduct routine business because insufficient members were present at the AGM, which forms part of the BDS Autumn Meeting. Notice is always given of any resolutions prior to the general meeting so that members will always have time to express their views on any proposal. The proposed change will avoid the possibility of having to close a general meeting if we are short of a quorum and then organise another and the expense that this would cause.

There will therefore be a resolution as follows put to the 2022 general meeting.

That the Constitution shall be amended so that the quorum for a general meeting is the “lesser of 3% or forty members” instead of “the greater of 3% or forty members.”

# News From You

**We love hearing from you! Here are a selection of some of our favourite communications from you:**

**Des Sussex, our County Dragonfly Recorder for Berkshire**, sent us this beautiful art work from his 5 year old grand daughter's school book. Well done Des for inspiring a future entomologist!

## Keep In Touch



**British Dragonfly Society**



**@BDSdragonflies  
@ScotlandBds**



**@britishdragonfly  
society**



**@duleyp on twitter talking about the wonders of garden ponds.**

Our pond has been in for 15 months and is teeming with Damselfly and Dragonfly nymphs, tadpoles, newts, and a host of invertebrates. Wildlife was quick to appear and is entertaining to watch; I saw a dragonfly nymph catch a small water boatman this week!



**@krazylady25 on instagram**

Well this caught my attention. A Damselfly landed near my pond and got straight on with it's morning yoga exercise. Just as well otherwise I might not have noticed that this is a Blue-tailed Damselfly and the first one to ever visit my garden. Talk about trying to get noticed.





# Migrant News

## Adrian Parr

The migrant season got off to an unexpected start when a female **Common Winter Damselfly** (*Sympecma fusca*) was discovered by Terry Crow at Wildern Local Nature Reserve near Hedge End, Hampshire, on 5 May. This is only the second record of the species in Britain – the previous individual having been found in Glamorganshire, south Wales, back in December 2008. Common Winter Damselfly has its strongholds in southern and central Europe but has become increasingly common on the near Continent over the last 30 years and indeed seems a potential future colonist to Britain. Since the species hibernates as an adult, it remains unclear whether the Damselfly was a recent arrival or whether it may instead have overwintered locally after having first arrived in England during autumn 2021. Searches of the area over the following few days failed to relocate the Damselfly or find others.

Of our more traditional migrant species, a few **Red-veined Darter** started to appear during the last days of May and early June, with almost all individuals being fully mature when first seen suggesting they were probably fresh immigrants. A teneral, found at Beeston Common, Norfolk, on 8 June, will however almost certainly be locally bred. Further individuals continued to be reported at intervals during late June and July, but overall it was a relatively quiet spring/summer for the species. The same cannot, however, be said for **Lesser Emperor**, which appears to be having a record year. At the time of writing, reports have been received from roughly 80 sites as far north as Moray in Scotland, and sightings of ovipositing pairs have been widespread. Indeed, a record of oviposition from Mire Loch in the Scottish Borders is only the second

record of attempted breeding for Scotland. One feature of this summer's records is the substantial number of localities involved which have also reported the species during previous recent years. Many sites have also seen unusually large numbers present with, for example, up to eight reported from Longham Lakes, Dorset, and 11 from the River Lee Navigation near King George's Reservoir, Greater London. These repeat sightings and high numbers are consistent with local breeding populations, and a well-grown larva was indeed discovered at Seaford Head, East Sussex, on 27 June. In addition to its continued yearly immigration, it would seem Lesser Emperor is now also becoming increasingly well established as a resident, a trend that is likely to continue.

The other major highlight of early 2022 was the continued rapid range expansion of **Norfolk Hawker**, which is clearly being driven by long-distance dispersal within Britain and maybe also, in part, by immigration.

Multiple individuals seen at Slapton Ley in Devon during June/July could well reflect a recently established breeding colony whose founding went unnoticed. Maybe it originated around the time when the now well established colony at Radipole, Dorset, was initiated. Other important sightings during 2022 included singletons from Lower Moor Farm, Wiltshire, and along the River Parrett in Somerset. In some ways, perhaps the most surprising records of the year were, however, from Amberswood Common near Wigan, Greater Manchester. A male was seen on 21 June with a female then noted again on 9 July; these north-westerly records are totally unprecedented.

The first half of the 2022 flight season clearly saw many interesting events involving migrant and dispersive species, movements perhaps being aided by the prolonged periods of warm weather. It will be interesting to see what the second half of the year has in store.



Common Winter Damselfly Wildern Local Nature, Hampshire © Terry Crow



# First Dates for 2022

## Adrian Parr

Over large parts of Britain, both the tail end of winter and spring 2022 were significantly milder than normal, and the mean 'Central England Temperature' averaged over the period February–June 2022 was nearly 2°C above the corresponding figure from the period 1961–1990. The result of all this was some notably early emergences. The first **Large Red Damselfly** was seen on 21 March, though amazingly this was not the first Damselfly of the year: a **Banded Demoiselle** was noted at Wandle Park in London on the very early date of 18 March. In recent years, this park or nearby ones have often seen the season's first Banded Demoiselle, and

clearly a favourable microhabitat is present in the area (perhaps due to some sort of urban heat island effect or to artificial warming of the water?). The first Dragonfly of the year, a **Hairy Dragonfly**, was seen on 17 April, and by the end of the month no less than 15 species of Odonata had been reported on the wing, with a sighting of **Scarce Blue-tailed Damselfly** being of particular note. As the season progressed, other highlights included good early records of **Golden-ringed Dragonfly** and **Ruddy Darter**, while **Willow Emerald Damselfly** emerged in force during mid/late June, setting a new earliest-ever British record in the process. The final species to appear was **Migrant Hawker**, as is generally the case.

Details of all earliest dates currently to hand are given below, they include verified records off social media where the observer remains anonymous:

SPECIES	FIRST DATE	PLACE	OBSERVER
Banded Demoiselle	18-Mar-22	Gtr. London (=Surrey)	D. Element
Beautiful Demoiselle	20-Apr-22	Devon/Berkshire	G. Foale/J. Lerpiniere
Scarce Emerald Damselfly	22-May-22	Norfolk	S. Rowland
Emerald Damselfly	14-May-22	Dorset	A. Brown
Willow Emerald Damselfly	18-Jun-22	Kent	Anon.
Azure Damselfly	20-Apr-22	Surrey	Anon.
Variable Damselfly	16-Apr-22	Somerset	V. Hancock
Red-eyed Damselfly	29-Apr-22	East Sussex	Anon.
Small Red-eyed Damselfly	05-Jun-22	Somerset	A. Warr
Large Red Damselfly	21-Mar-22	Hampshire	E. Parkes
Common Blue Damselfly	19-Apr-22	Somerset	M. Hull
Blue-tailed Damselfly	18-Apr-22	Somerset	S. Smith
Scarce Blue-tailed Damselfly	26-Apr-22	Norfolk	S. Rowland
Small Red Damselfly	19-May-22	Cornwall	S. Jones
White-legged Damselfly	12-May-22	Wiltshire	Anon.
Southern Migrant Hawker	17-Jun-22	Essex/Kent	K. Price/H. Vaughan
Southern Hawker	24-May-22	North Yorkshire	C. Page
Brown Hawker	09-Jun-22	Lincolnshire	J. Mellowship
Norfolk Hawker	12-May-22	Cambridgeshire	S. May
Common Hawker	05-Jun-22	West Ross	D. Hind
Migrant Hawker	06-Jul-22	Kent	G. Hawgood
Emperor Dragonfly	12-May-22	Surrey	L. Pryke
Hairy Dragonfly	17-Apr-22	Kent	D. Tutt
Common Club-tail	05-May-22	Oxfordshire	A. Dawson
Golden-ringed Dragonfly	07-May-22	Cornwall	F. Watts
Downy Emerald	21-Apr-22	Kent	K. Goodman
Brilliant Emerald	31-May-22	Berkshire	D. Sussex
White-faced Darter	29-Apr-22	Shropshire	S. Barlow
Broad-bodied Chaser	21-Apr-22	Kent	N. Burt
Scarce Chaser	03-May-22	Hampshire	S. King
Four-spotted Chaser	18-Apr-22	East Yorkshire	P. Hinks
Black-tailed Skimmer	26-Apr-22	Dorset	I. Ballam
Keeled Skimmer	13-May-22	Norfolk	S. Rowland
Black Darter	15-Jun-22	Shropshire	H. Witts
Ruddy Darter	22-May-22	Cambridgeshire	D. Gruar
Common Darter	15-May-22	Carmarthenshire	C. Bailey





## Llangorse Lake, our first Welsh Dragonfly Hotspot *Brian Walker*

© BBNPA

We had a warm, sunny day for the launch of our first Welsh Dragonfly Hotspot, Llangorse Lake in the Brecon Beacons, on Saturday 16 July 2022. Llangorse Lake is the largest natural body of freshwater in South Wales and an impressive total of 22 dragonfly species have been recorded at the site. Breeding species include a healthy population of Variable Damselfly, one of our scarcer species, as well as all of the local resident lowland species, from Black-tailed Skimmer to Ruddy Darter. However, you would need to visit the nearby hills to see upland and peatland specialists, such as Black Darter.

An interpretation board, in both English and Welsh, was unveiled to officially open the site as a Dragonfly Hotspot. The board was funded by a generous donation from BDS members Stephanie and Paul Mocroft in response to our Dragonfly Hotspots appeal. It is in a prominent position, on the path to the Crannog Centre, where it will be seen by most users of the lake, whether they are visiting to see the wildlife or to enjoy the various water-based activities.

BDS was joined by representatives of Brecon Beacons National Park Authority, South Wales Wildlife Trusts, The Biodiversity Information Service, and the Llangorse Lake Liaison Committee to meet members of the public and involve them in activities, including pond dipping on the dock. Unfortunately, no dragonfly larvae were netted but there was sufficient aquatic life caught to engage the children who took part; the very large Ramshorn Snails were a favourite. There was also an Emperor Dragonfly which patrolled up and down throughout the sessions and became a target for photography. There was a steady stream of visitors to our stall with a lot of youngsters, and some who were not so young, making pipe-cleaner dragonflies in a variety of colours. Kevin Noble, our County Dragonfly Recorder for Breconshire, who had worked with Ellie, our Conservation Officer, to organise the day, led a walk in the afternoon. We strolled across what would normally be fairly boggy grassland, but was bone dry this year, although still covered in Marsh Ragwort and Purple

Loosestrife, to the stream which forms the outflow from the lake. Here we had good views of another Emperor Dragonfly, a couple of Ruddy Darters and a reasonable number of Damselflies. These were mostly Common Blue and Blue-tailed Damselflies, but



© Pauline Hill





included an Emerald Damselfly and an Azure Damselfly. Walking back to the activity area we also saw a Four-spotted Chaser.

It would have been nice to have seen a little more dragonfly activity on the day but the dry weather this year seems to have curtailed the season for some species. One of the highlights of the day for me

was to see an Osprey when I first scanned the lake after I arrived. This bird has been a regular visitor to the lake recently and a number of visitors saw it when it made a further visit later in the day. One guy who had visited our stand to find out what he should look out for before going out onto the lake in a canoe returned to say that he had seen the Osprey catch a

fish while he was out on the water.

It was my first visit to the site and I was impressed by the potential of it. If you have not been, it is well worth a visit if you are in the area. As with all of our Dragonfly Hotspots we hope to be able to organise future events here to help people further appreciate its dragonflies, and other wildlife.



© Ben Mullen

## Hotspot Appeal

Crombie Country Park, in Angus, was our first ever Dragonfly Hotspot launched in 2014. It is a wonderful place to see dragonflies, with three different ponds to visit. You will see Damselflies in the reeds and rushes at the side of the loch, sunbathing Black Darters, and Common Hawkers zipping around the ponds.

We are raising £3000 to replace the old interpretation boards, which have fallen into disrepair, as well as to clear and deepen the overgrown ponds, to ensure that the dragonflies thrive, and people enjoy the best experience when visiting the site.

Please donate and help us to improve the habitat for dragonflies at Crombie, and educate people visiting about the amazing life of Crombie's dragonflies.

To donate to our Appeal go online: <https://british-dragonflies.org.uk/product/donation/>

or send a cheque payable to the British Dragonfly Society and marked 'Crombie' to:

Ashcroft  
Brington Road  
Old Weston  
Huntingdon  
PE28 5LP

Please note: any donations received above our target will allow us to install boards at other Hotspot sites across the UK.

**Thank you!**



© Nick Wilcox-Brown





## Launch of the Steart Marshes Hotspot Partnership *Brian Walker and Pam Taylor*

The weather at our launch event for our Dragonfly Hotspot at Steart Marshes, a Wildfowl and Wetlands Trust reserve in Somerset, was a little different to that at Llangorse Lake the previous weekend. It was mostly cloudy and rather breezy with a little drizzle around lunchtime. Nonetheless a good number of people dropped in to see us and take part in the activities on offer. Dave Smallshire and Andy Swash from BDS, and Nicole Turnbull, engagement officer for WWT at Steart Marshes, unveiled the new interpretation board, generously funded by BDS member, Michael Watt, in response to our Dragonfly Hotspots Appeal. Dave explained that he and Andy had carried out dragonfly surveys at Steart Marshes following its creation by Wildfowl and Wetlands Trust and had been surprised at finding 20 species on the site, including Scarce Chaser and Variable Damselfly, it being the most westerly site in southwest England for the latter. They had recommended it as a Dragonfly Hotspot and they were delighted that it had now become one.

Following the unveiling a large crowd departed on a guided walk. The weather was not ideal for finding dragonflies, but Blue-tailed Damselflies were soon found and everyone enjoyed views of them

in the vegetation, and in the hand, after Andy and Dave both netted one. A little later Dave also found and netted a female Common Darter. When everyone had seen and photographed it, he placed it on the hand of a young visitor, who watched carefully as it clung to his finger for a while before taking off and flying away. A Ruddy Darter had been found in an early reconnaissance, but we did not manage to find one on the walk.

The younger visitors were fascinated by the many Meadow Grasshoppers jumping away as we walked through the grass and, after queries about grasshoppers and crickets, we found a Roesel's Bush-cricket. This is a species which has recently arrived at the site as it continues to spread west and north in the country, like a number of our dragonfly species. Andy showed the youngsters that the distribution map for the cricket, in a recently published Insect Field Guide, does not yet reflect its spread as far west as Steart Marshes because it is such a new arrival.

There were plenty of other activities for visitors with pipe-cleaner dragonflies being as popular as always, although the wind meant that the paper wings had a tendency to fly away before they were fixed to the body. WWT and BDS

volunteers ran pond dipping sessions and caught an Emperor Dragonfly larva as well as a stickleback and a range of other aquatic life. WWT volunteers were also helping visitors to weave dragonflies from willow sticks. This proved to be very popular with a number of impressive (and large) dragonflies being carried around afterwards.

The afternoon guided walk found more Blue-tailed Damselflies and Common Darters, but Ruddy Darters still proved elusive. The only one seen disappeared over the dyke before more than a couple of people could appreciate it. There was however, a very obliging female Emperor that oviposited in one of the ponds long enough to give everyone a good viewing and photo opportunity. Pam Taylor then netted a Variable Damselfly that delighted all present, because the species hadn't been recorded in that part of the reserve before.

Everyone seemed to enjoy the visit and to have learnt something from the day thanks to the efforts of staff and volunteers from BDS and WWT, but also through visitors sharing their knowledge and experience with others, not just about dragonflies but also about other wildlife as well as sharing tips on photography and garden ponds among other things.



# SPOTLIGHT ON

## Ripple Gravel Pits

*Mike Averill*

**Mike Averill, BDS Field Meeting Organiser, reflects on the past summer's dragonfly events and his visit to the lakes at Ripple Gravel Pits.**

Holding a field meeting at Ripple, in the south of Worcestershire, provided an opportunity to explore the nearby, newly formed, ex-gravel pit wetlands and also a chance to test the new Priority Site criteria (available with the Recording section of the BDS website).

There has been a lot of anticipation following the extensive working of river gravels in South Worcestershire, with the prospect of new shallow freshwater habitat. The resulting wetlands at Ripple are easily viewed when crossing the River Severn on the M50 to Wales; the area is now made up of two large lakes and a smaller pool totalling 28 Ha (71 acres), one of the largest combined waterbodies in Worcestershire, other than the public supply reservoirs.

The meeting on the 28 May was not the best of days weather-wise; by 11:00 the temperature was struggling to get to 16°C, and it became apparent that it would be one of those 'searching for insects' rather than 'watching them fly by', sort of days. However, keen eyes soon clocked up 14 species with several Scarce Chasers and Common Clubtails sitting in riverside vegetation. One Hairy Dragonfly did make an appearance but not until 15:30 and that was just a brief fly past. However, it is good to know that Hairy Dragonflies are at the site because they have attained a bit of a mythical dragonfly status within Worcestershire. Previously there have only been two records from the west of the county in the late 1970's and one casual record in 2011 since.

Despite the dull weather, which actually made photography easier, most people left the site knowing that it is a wonderful new dragonfly site for the county and that, in future, there would be plenty to see on a sunny day.

Priority site analysis involves reviewing records for a site to see if it could be a priority site for Dragonflies based on the set criteria; this cannot be decided based on records from just one visit. Looking through the records for the last three years, a total of 24 species have been recorded there including the county's first breeding records of Lesser Emperor and Hairy Dragonfly. The trump card, however, is the inclusion of the Nationally Important species Scarce Chaser and Common Clubtail Dragonfly, which qualifies the wetland as being of County-level and National-level Importance. At the moment the site is still owned by the gravel extraction company but hopefully this information will help decide the future of the site.

Getting there is easy as it is off Junction 1 on the M50. Parking is in the fisherman's carpark, off Ferry Lane which runs through Ripple (it is usually not used much before the 16 June); Grid Reference: SO86423762, nearest postcode: GL20 6ER.

The site is also good for birds, with 169 species recorded since 2008; winter walks are particularly rewarding with large numbers of wintering waterfowl.



Common Clubtail © EdenTanner



# Broad-bodied Chasers move north in Cumbria

*David Clarke*

Male Broad-bodied Chaser © David Clarke

Although recorded almost annually in Cumbria since around 2000, Broad-bodied Chaser records have increased in recent years, with breeding behaviour being observed very frequently. Regular breeding in the south of the county, especially in the Kendal area, has been noted since at least 2010. Records from further north in the county really started to rise by 2017 and have been the highest recorded in the past three seasons. Numbers of individuals at any one site are rarely large, a maximum count of 15 (mainly males) was noted in 2021 at a scrape at Whitber in the Eden Valley on 8 June. This site had been created in 2018, by Eden Rivers Trust, as a flood alleviation measure. Another site, reported by the same observer, was at the highest altitude yet recorded for this species - a quarry pond at 300 metres above sea level near Orton Scar (NY61).

The species is usually stated to be a pioneer colonist of newly made sites with minimal emergent/waterside vegetation. This is certainly borne out at some sites, such as new garden ponds, and other recently recorded waterbodies and quarry sites (figure 1). It is equally the case that as such sites become

progressively more vegetated, the species often ceases to show interest in them. As the scrape image (figure 2) shows, low water-levels caused by drought can expose bare margins and thus recreate the 'new pool' effect. It is possible that this can sometimes be a factor in the species' site selections. 2022 was even drier than 2021, and that was before the mid-August heat-wave, whose longer term effects are as yet uncertain. Nonetheless, records in 2022 continued on a scale similar to previous years.

As the map shows (figure 3), the pattern of occurrence in 2020 and 2021 has a strong alignment with the Morecambe Bay-Eden Valley axis, with fewer records from Lake District and West Cumbria. As one recorder commented to me: 'there are many inaccessible pools on farmland in the Eden Valley, perfect stepping-stones on the species' unstoppable march north-wards'.

Interestingly, there is very little indication that coasts have been important in the species'

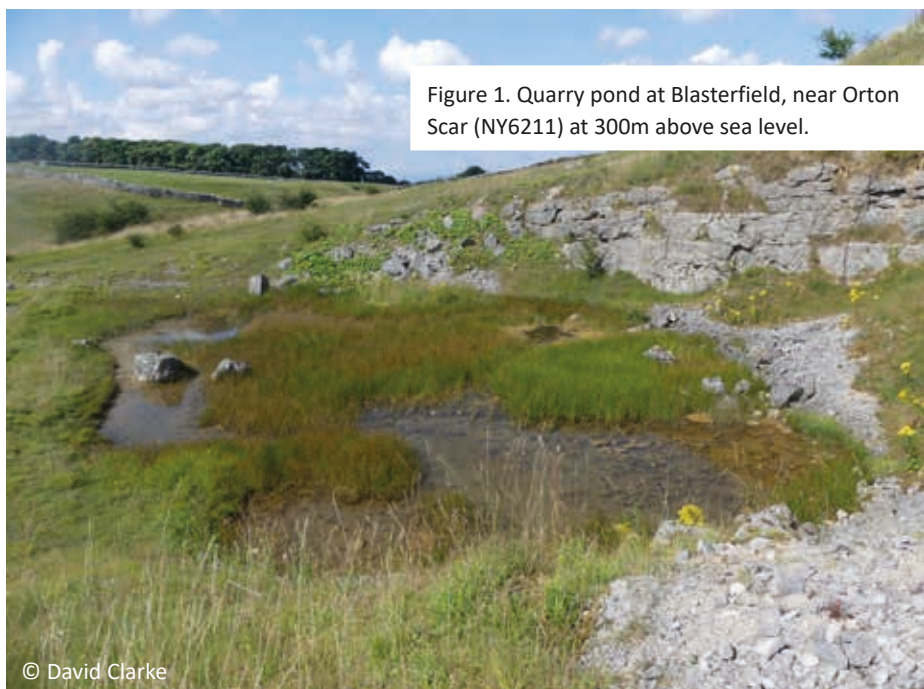


Figure 1. Quarry pond at Blasterfield, near Orton Scar (NY6211) at 300m above sea level.

© David Clarke



movement and colonisation, which is possibly different to other species, such as Migrant Hawker and Red-veined Darter. The sparsity of records to the north-west of the Lake District may be the outcome of a tendency to avoid uplands, creating a 'distribution shadow' to the north of high ground.

Given that the number of tetrads from which the species was recorded in 2020 and 2021 were similar, and that the overall spread of records was similar in both years, it is perhaps surprising that there were so few tetrads in which the species was seen in both years. Possibly this suggests a species 'on the move' and without many regular breeding locations. As it has at least a two-year life cycle, this could be another reason why the species is apparently 'missing' in adjacent years – at least until it becomes more established. It will be interesting to see whether this picture changes in the coming years.

Presumably, the Broad-bodied Chaser is now destined to become an ever more familiar sight in the county. In writing this, I consulted the 1996 atlas, which mapped records to 1990. Up until that year the species was not present north of a line from the Humber to the Ribble estuaries!

I am grateful to Dr El-Moustafa Eweda, Data Officer at Cumbria Biodiversity Data Centre, for assistance with the map.

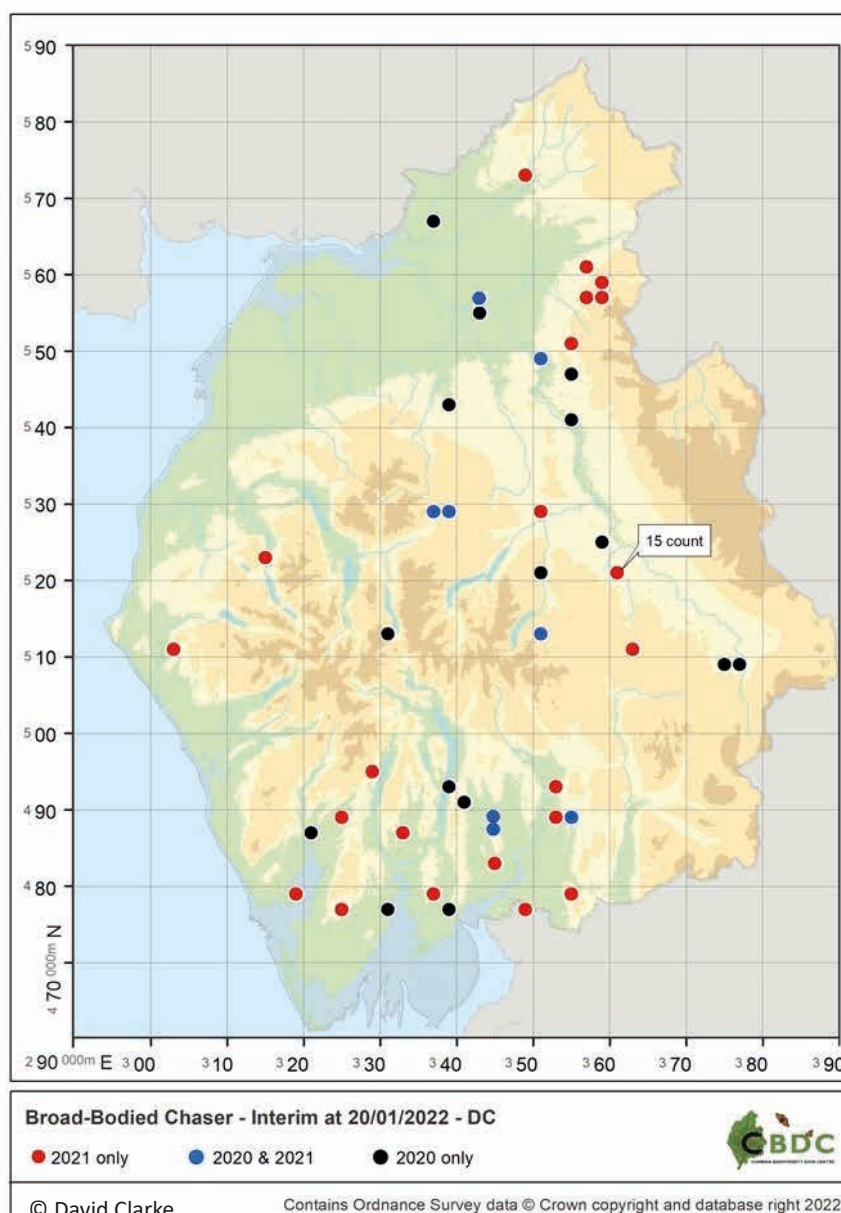
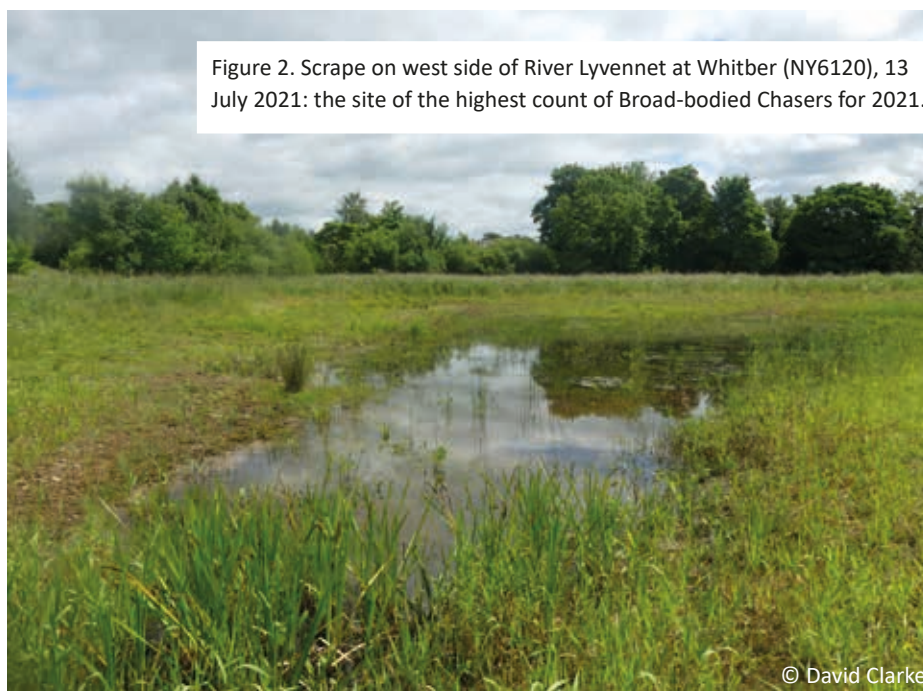


Figure 3. Tetrads recorded 2020 and 2021 – see map legend. Eden Valley site (flagged on map) had highest individual count in 2021.



# Weybourne Camp a Haven for Dragonflies

## *Moss Taylor*



Female Black-tailed Skimmer © Bruce Hyde

**Wildlife enthusiast Moss Taylor talks us through how he has worked to transform the land at Weybourne Camp into a paradise for dragonflies.**

For 35 years I've managed a small, private bird reserve at Weybourne Camp on the north Norfolk coast, an area that I have been visiting regularly since 1972. Although my main interest has been recording bird migration at the site, both by using visible migration data and through ringing, records have also been kept of other taxa, such as flowers, butterflies, bumblebees and dragonflies. However, it was only during the summer of 2021 that comprehensive records of adult Dragonflies and Damselflies were made.

When I first visited the Camp in 1972, which covers about 200 acres, the main habitats were rough grassland and scrub with a small, recently planted conifer plantation. In 1988 several hundred willow, oak and sycamore saplings were planted and a pool and scrape were excavated, fed by a natural spring and rainwater. Over the passage of time this had dried up almost completely and was taken over by small stunted willows and brambles. However, in November 2020, the pool area was once again excavated over a period of three days and as fortune would have it, upon completion it rained almost continuously for nearly a week. Since then some water has been present all the time (even during the recent unusually hot, dry weather) and has proved to be a great attraction to Dragonflies and Damselflies. Last summer the average depth of water was about 30cm with a deeper area in the middle of 60-90cm. A narrow reed bed extends around the northern side, while Reedmace grows in the deeper water and Common Water-crowfoot covers much of the surface of the open water.

During the summer of 2021, a total of 17 species of Odonata was recorded on the Camp, mainly in the area of the pool but also in the nearby willows and scrub, the first, a female Black-tailed Skimmer on 2 June and the last, a Common Darter on 8 November. Up to two males and a female Emperor were present over the scrape throughout much of the summer, with the female egg laying in mid-June. An immature male Hairy Dragonfly was a pleasant surprise on 9 June, albeit identified retrospectively from a photograph. Both Broad-bodied and Four-spotted Chasers were present almost daily in June, and up to three Red-veined Darters were in the area from 9-26 June.

Both Southern and Brown Hawkers were recorded during mid-summer and Migrant Hawkers from 24 August. However, the most unusual was a Green-eyed (Norfolk) Hawker that appeared to fly in from the North Sea on 10



August before conveniently landing on a nearby bramble bush and flying off west a minute later. Its wings were extremely tattered supporting the idea that it had flown a considerable distance, perhaps even from the other side of the North Sea. It was, perhaps not surprisingly, the first record for the Camp. Two days later the only male Banded Demoiselles of the year were present over the scrape and around the nearby willows.

Other species noted during 2021 were Willow Emeralds around the few remaining stunted willows on the scrape, Azure and Small Red-eyed Damselflies, and Ruddy Darter. Unfortunately the very dry and hot weather this year has resulted in the pool becoming far smaller and shallower, and Dragonflies and Damselflies have subsequently become far scarcer.



Scrape in January 2021



Scrape in early spring 2021.



Scrape in mid spring 2021.



Scrape in summer 2022.







## Young Naturalist Section

Dragonflies and me....

Lauren Kennedy

### Meet Lauren, our new Conservation Outreach Officer!

#### Tell us about your journey to the BDS

Growing up in South Wales I was not short of amazing wild spaces to explore and I soon became obsessed with botany and a wide range of invertebrate groups. I went on to study a BSc Biology at Cardiff University followed by MSc Environmental Biology at Swansea University. I have worked for several organisations: Natural England, Field Studies Council and Bumblebee Conservation Trust, in which I have focused on public engagement, working with volunteers and creating training. I spend most of my spare time outdoors and can be found looking for plants and insects as well as hiking in the mountains. I feel very privileged to join the team and to share with others the magnificence and importance of dragonflies. I am looking forward to playing a part in the conservation effort for dragonflies and the habitats they need.

#### Why did you first become interested in dragonflies?

I have always had a fascination for insects and hugely enjoy building my identification skills. It was when I was working at a bird ringing station in Sweden, working on lakes and reed beds, that I became happily

distracted by these brightly coloured aerial acrobats. I started to learn more about dragonfly biology and ecology and spent many hours watching them. I brought my new-found fascination home with me.

#### What is your favourite species of dragonfly/damselfly and why?

Beautiful Demoiselle; this species is just such a show stopper with its dark wings and iridescent colour. It is hard to forget the first time you spot this Damselfly! With such striking features, it's a brilliant species to spot for beginners, especially in Wales and the South-west.

#### What is your best memory of a dragonfly encounter?

Watching a Golden-ringed Dragonfly chase and catch a bumblebee was an incredible aerial display. To my delight, the dragonfly then perched about a metre from me to enjoy its well-earned meal. An amazing encounter and a reminder that some of the best wildlife moments happen when you have no camera to hand!

#### What is your favourite dragonfly fact?

Hawker dragonflies have a maximum speed of 25-30 miles per hour, making them one of the fastest insects in the UK. This can be frustrating when trying to get a good look but utterly mesmerising as they

hunt and chase their prey.

#### What one thing do you think people should do for dragonflies?

Having a pond in your garden is the best action you can take for dragonflies. No matter the size of your outdoor space you can create an area of freshwater whether that's digging out a pond or using a container on a patio area. Your pond will also attract other insects into your garden providing a meal for dragonflies.

#### Any advice for aspiring young naturalists?

Lots of exploring! Visit different habitats to build your natural history knowledge and help you to discover what you find most fascinating. Connecting with charities like the British Dragonfly Society and attending events and guided walks will mean meeting experts who have a lot of knowledge to share. Keep a record of what you learn in a field journal, a great way to keep track of all your wild finds!





# Working With Wildlife

Alys Laver

**I'm Alys Laver, Site Manager at WWT Steart Marshes. I started at Steart Marshes in 2013 before the reserve was opened to the public and before the breach was cut in the old sea-wall. I was given the rare opportunity to know a site right at the beginning and watch it develop. Before that I was working as a reserve warden on the Somerset levels so it was exciting to work on the other side of the River Parrett and get to know the beauty of the Estuary.**

## What is the best thing about your work?

Most people would expect me to say being outdoors but surprisingly, as the Site Manager, I don't get to go out as often as people would expect. Of course having a stunning wetland reserve on the doorstep of my office is a real blessing and when I do get out and about I savour every moment. The best aspect of my work is the variety, whether it's writing management plans, leading projects, managing contractors or getting out and checking on water levels. Everything I am doing is with the

knowledge will contribute to making a change for a better future.

## What does a typical day/week involve?

There are no typical days, which as I've already mentioned is one of the great things about my job. Any given day or week can be dealing with applications, working in partnership with issues like disturbance, making sure the farmers on site are happy. In addition, I am responsible for keeping the local community informed of what's happening on site, dealing with contractors, strategic work, admin, site checks (on a good week), meetings and budgeting. My role has changed massively since I started as all organisations are starting to look at Nature Recovery and finding ways we can connect our reserves through wider landscape management. This takes a lot of time and commitment but of course is well worth the investment in time.

## Describe the most challenging aspect of your work?

Reserve management decisions based on unpredictable weather and long wet winters which require a lot of water management to ensure the water is directed into the right

place. This is usually paired with high-tide so this prevents the water leaving the site as quickly as may be required. This calls for some predictions having to be made to enable us to get capacity within the reserve itself. At the other end of the spectrum, the longer hot spells we are now seeing requires holding back enough water to sustain the site when water is in short supply.

## Do you have any advice for anyone wanting to start a career in Wildlife Conservation?

Get out and volunteer, with different organisations if you can. It's a great way to test the water, see what elements you enjoy and get yourself known with people in the sector. Often with good volunteer placements you will also get the training required for the job, such as chainsaw and tractor tickets. I also found that starting with a conservation contractor gave me a good work ethic; I have never worked so physically hard. As you then progress in your career, if you wish to do so, you understand what you're asking of others and I feel are a more effective manager.

## Finally, what, or who inspired you to want to save species for a career?

My grandfather. From a very early age he took me for long walks, got me interested in wildlife and taught me to appreciate the wonders of the natural world. It's easy to take for granted being able to recognise species of butterflies and plants and having a love for nature.

## How can we keep in touch with you?

[www.wwt.org.uk/wetland-centres/steart-marshes](http://www.wwt.org.uk/wetland-centres/steart-marshes)

Twitter - @WWTSteart

Facebook - WWT Steart Marshes



# #PondWatch 2022

Eleanor Colver

Every June we hold an online national celebration of ponds called PondWatch! We started the event during the first summer of lockdown, swapping our garden pond stories and videos across social media while everyone was stuck at home.

A large number of British dragonfly species lay their eggs in or near to ponds and these eggs later hatch into aquatic larvae. Lots of people got in touch during PondWatch to share their photos of the dragonfly larvae they have found in their pond or the adults they have seen emerging.

These days, ponds have never been more important! The summer of 2022 has been exceptionally hot and dry; during drought conditions ponds become an oasis where wildlife can cool off and have a drink. Unfortunately, lots of dragonfly fans got in touch to say they have seen their local ponds completely dry out over summer, which is bad news for any dragonfly larvae living in them. As a result, we are encouraging community groups and landowners to dig more ponds and make them bigger and deeper so they can store more water and are less likely to dry out.

During PondWatch we teamed up with our Ambassadors, and wildlife gardening pros, Green-fingered George and Joel Ashton, to share tips on how to make gardens a paradise for dragonflies and other insects. You can follow them on twitter to get inspired: @GreenFGeorge and @\_joelashton

In addition, we were given a special treat: Film Director Will Clothier gave us an exclusive viewing of his International Wildlife Film Festival 2022 mini documentary on Pete the Pond (title by the same name), an eccentric landscape gardener with a deep passion for ponds and wildlife conservation.

We also ran a photography competition - photographers entered their best photo of larvae or exuviae for a chance to win a copy of the beautifully illustrated *Les Larves de Libellules* de *Die Libellenlarven* von Paul-André Robert by Christophe Brochard. Just look at the wonderful photos we received!

Lastly a special shout out to film maker Steve White, for his continued support of the #PondWatch event.

Don't forget to follow the BDS on social media so you can take part next year!



**Common Darter by Janette Shields**



**Emergence by Caroline Anderson**





### Competition Winner: Emperor larva by Steven Hewitt

I was delighted early in the year to be asked to survey the BDS hotspot in Exbury Gardens, Hampshire. Before any adults emerged, in March and April I tried dipping - something I had never done before. What a fascinating, rewarding way to spend a few hours! This Emperor male wasn't fully grown; the wings buds reached only segment 2 but even so, readily identifiable.



**Four-spotted Chaser larva by Muriel Dale**



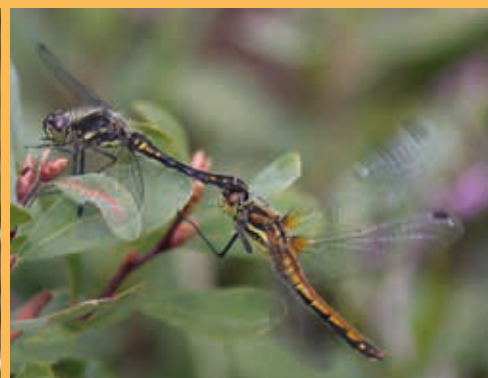
# Photo Project: The Surveying and Recording of Dragonflies

Iona LeCorre

When surveying wildlife I find it very useful to record my findings by not only the written list, but also accompanying it with photos, even if I take many images of the same species. These images can assist when a species is not completely in view, is far away, or is in an immature state, and identification is confusing. Digital photography equipment nowadays means I can take as many photos as I want without any added costs. Film recordings, even if they are slightly blurred, may help confirm my findings, like in the case of this Northern Emerald dragonfly which suddenly appeared to oviposit by dropping her eggs, then flew away again.



Northern Emerald



Black Darter pair in tandem

The life cycle of the dragonfly is interesting in its progression from life in water to the air to complete its cycle with copulation and ovipositing of its eggs. This is done in various ways, either by dropping them in the water or placing them in vegetation; the larvae then hatch to start the cycle all over again in water.



A newly emerged Migrant Hawker that hasn't developed its mature coloration, and its exuvia.

While out on site I record all wildlife in the area as this can expand our knowledge about what species this particular habitat can support. The findings can then be applied to other sites with similar habitats. It's important to also study terrestrial habitats near dragonfly wetlands as Dragonflies and Damselflies like to move away from water where they have newly emerged and are vulnerable; they then need to mature before coming back to the water to mate.

My main interest within natural history is wildlife behaviour, and as our climate changes many species are on the move. Therefore it is even more important and exciting to locate these species to keep a record of their movements during this period.

What is even more exciting is locating some of the Scottish species, like the Northern Emerald, or the Azure Hawker which is very difficult to find; like many species, it likes to warm up in sunny locations such as wooden walkways, boulders and tree trunks.

It is important that surveys like these are carried out for all insect life as they are all struggling due to loss of habitat and climate change.



Common Hawkers (left) insert their eggs into plant material while Four-spotted Chasers lay their eggs directly into the water.



Azure Hawker



# Willow Emeralds in the Winter *Ian Merrill*

Although there can be few dragonfly enthusiasts who are unaware of the recent arrival of Willow Emerald Damselfly to our shores, and its subsequent spread through the UK, I wonder how many are actually alert to its true status in their immediate local surroundings? Until the winter of 2021/22 I would have counted myself amongst this number, but over the cold and leafless months a light of Odonata revelation shone in Leicestershire and Rutland!

Willow Emerald Damselfly arrived in the UK, in Suffolk, in 2007 and immediately began to spread westwards. It reached Northamptonshire by 2016 and Lincolnshire by 2017, then in 2019 it was discovered for the first time in Leicestershire and Rutland (Vice County 55), at the widely spaced localities of Eyebrook Reservoir and Watermead Gravel Pits. By the end of 2020 it was still only known from six VC 55 locations, all to the east of Leicester; however 2021 was to prove to be something of an exceptional year. By the close of the 2021 flight season Willow Emerald Damselfly had been proven to be present at no less than 53 sites within VC 55 - these discoveries added an 800% uplift in its recorded range!

Willow Emerald Damselfly can be notoriously difficult to locate during the flight season, especially where population densities are low, as it can remain motionless for long periods in dense leafy cover. Other observers had previously commented on the ease with which the evidence of Willow Emerald Damselfly colonisation could be tracked in the winter months, and although I had previously found winter oviposition scars at a known site I was yet to put this theory to a true test.

Willow Emerald Damselfly is unique amongst UK Odonata as it lays its eggs directly into the outer layers of bark of trees and shrubs overhanging water. The eggs remain in diapause over the winter months, then in spring they hatch and larvae drop into the water below, where they rapidly develop to emerge as adults between July - September; adults can sometimes still be found on the wing as late as mid-November. The eggs, which are oviposited just below the protective covering of the bark, give rise to distinctive swellings on the branches of host species which are most easily found once the trees have shed their leaves. Anyone wanting to find out more about this fascinating life cycle should look up the excellent papers in the BDS Journal by Mark Tyrrell (Vol 35 No 2) and Steve Cham (Vol 37 No 1).

In early December 2021 I began to search likely-looking habitat and immediately found several sets of ovipositing scars within an hour of my arrival at my first pond. I had already surveyed the site several times in the

summer flight season, but to no avail; this is much easier, I thought! In the months which followed I visited site after site, also encouraging other VC 55 observers to do the same. By the end of March 2022 an additional 42 new 1km grid squares and 12 new 10 km grid squares had been added to the known range of this species. It became very apparent that Willow Emerald Damselflies were actually all around me, yet I had been blissfully unaware! In fact it was quite obvious that ovipositing had occurred for at least two previous seasons at well-populated sites in the east of VC 55, as proven by the presence of older scars. In total, the known range of Willow Emerald Damselfly in VC 55 had expanded by an incredible 1500% in a single season (figure 1).

One fact which struck me, especially at the western edge of the range, was how single sets of scars were often all that could be found in a thorough search of a site. This led me to hypothesise that fertilised females must set off in search of new habitat, perhaps moving

Willow Emerald / Green Emerald Damselfly (*Lestes viridis*)

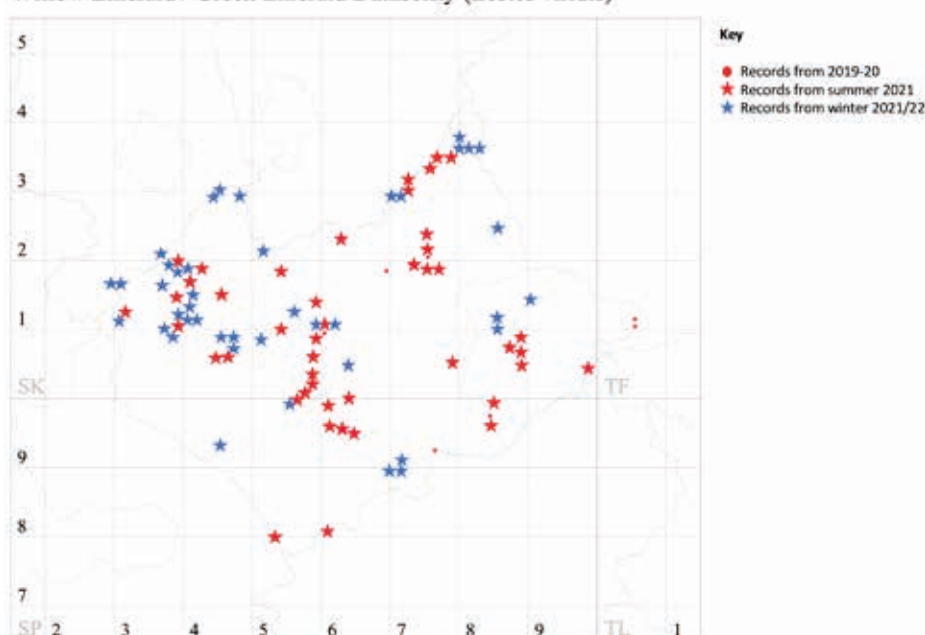


Figure 1. Distribution of Willow Emerald Damselfly in VC 55 Leicestershire with Rutland





Figure 2. Typical Willow Emerald Damselfly ovipositing sites in willow branches overhanging water

from site-to-site, where they lay a small speculative batch of eggs before moving on again. In the east of its VC 55 range, sites with large numbers of scars make it very evident that large populations are already present, suggesting that other individuals remain to breed at the sites from which they emerged.

Subsequent discussions with Steve Cham and Adrian Parr, on the likely triggers for female dispersal, suggested that weather conditions are likely to be an important parameter. Soon after its colonisation of the UK, the Willow Emerald Damselfly seemed to be expanding by approximately 20 km every year. Later, this became more erratic, with more expansion in some years and very little in others, until during the hot weather of 2019 there was a dramatic push northwards of 150 km. The late summer of 2021 certainly provided some favourable warm weather conditions, no doubt driving the Willow Emerald Damselfly's westward push through VC 55. Many questions still remain to be answered, with this species certainly proving to be a

fascination, if an unpredictable subject of study.

Drawing upon my recent personal experience in VC 55, the following is a summary of how to best to focus Willow Emerald Damselfly winter recording efforts. I would advise potential observers to primarily search in willow branches, which represent in excess of 90% of oviposition sites in VC55. A pair of close-focusing binoculars are a useful aid, as scars are always above water. It is also worth noting that branches must be above water in the summer months, so don't waste time at seasonally flooded sites. Scars can be anywhere from 1m to 4m above the water's surface, with 1.5 to 2.5m generally the prime places, hence one is searching at head-height or just above (figure 2).

Given the choice, ovipositing females seem to favour sites with a sunny south-facing aspect, although I have found many exceptions to this rule, especially when suitable habitat is limited. Look on branches that are roughly pencil-sized to finger-sized in diameter, with fresh-looking

growth as opposed to gnarled, lichen-encrusted bark (figure 3). Most scars seem to be on small branches set at an angle between vertical and 45 degrees, a few may drop towards the horizontal, but downwards-angled stems appear to be avoided (other than on Weeping Willow); I have wondered if such downwards-angled branches are less conducive as ovipositing sites as they may form water-paths during wet periods which could be detrimental to overwinter egg protection?

The smaller, more shrubby varieties of willow, including Grey, Goat and Crack Willows, are favoured. These species support more suitable branches within the 'ovipositing zone', whereas large and mature White Willows will have fewer low branches to attract ovipositing insects. Mature White Willows will be used where other options do not exist, as will Weeping Willows, but in my experience they are much less favoured as ovipositing sites; I have only found scars on Weeping Willow at two sites in VC 55. It is also worth mentioning that



Figure 3. Example of Willow Emerald Damselfly oviposition scars in willow, with finger to show scale



scars are infinitely easier to find at sites with fewer host trees adjacent to a waterbody; if you are within range of the Willow Emerald Damselfly and only have a handful of suitable shrubs in which to search, you are likely to find ovipositing scars very rapidly!

In the absence of willow I have also found scars on ash, though this species is the host in less than 10% of VC 55 sites. With ash, the oviposition scars are typically on the most recent growth tips of branches, which are generally near-vertical, with the scars being very obvious on these candelabra-like growth spikes. Alder seems to be much less favoured, with scars certainly more difficult to spot on the more textured bark of this species; I have found alder scars at just three sites in VC 55. By the nature of the species' structure, scars are often on horizontal stems on alder, representing the majority of the branches over water. I also found a single example of oviposition on hawthorn in VC 55, and this is clearly a shrub of last resort, when no other options exist. The literature suggests that Willow Emerald Damselfly may occasionally oviposit in a wide variety of other suitably placed trees and shrubs, but as yet I have not observed this myself.

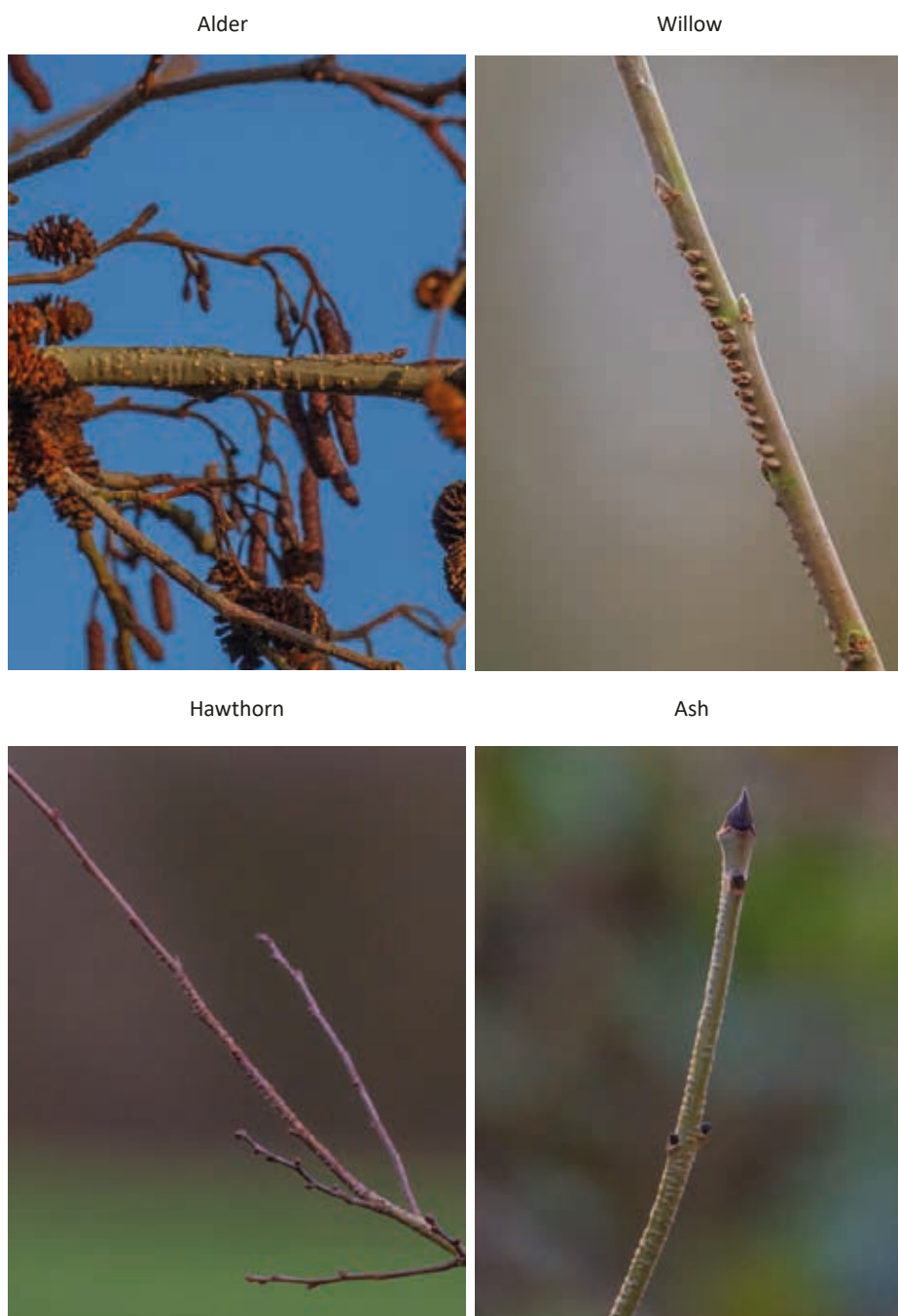
The accompanying images illustrate some typical locations of oviposition scars and show the appearance of scars on different host species. Typically they form straight or slightly spiralling sets of neat double-bumps. To my eye, it is the unnatural symmetry which draws attention as one scans through the haphazard blemishes and bumps of normal tree development; in some ways the scars have the appearance of marks made by the run of a sewing machine. Good light and calm weather are also a benefit and I find that shadows cast in strong sunshine can be a great

giveaway to the presence of these tiny pimples; avoid windy days which shake frail branches and dull days when the light is flat and unrevealing.

Finally, it is worth visiting a site with a known population of Willow Emerald Damselflies, where scars should be easy to locate and it is then possible to get a feel for typical sites and an appreciation of scar appearance and variation; some scars can be blindingly-

obvious, while some are so subtle that they are very easily overlooked. From then on, you can set forth on a voyage of winter revelation; for me, the buzz of finding a wonderfully symmetrical, spiralling set of bumps on a smooth green willow stem on a fresh January morning is every bit as exciting as the shimmer of a sparkling green adult on a sultry September afternoon.

Figure 4. Examples of Willow Emerald Damselfly oviposition scars on different tree species.



# There Be Dragons ... an overview of Odonata activities in our Somerset garden. *Neil Galton*



I first got interested in dragons during organised bird outings when I was able to tap into the knowledge of someone who was an expert in this field. Since we were also neighbours I was able to ask him for help with the identification of winged visitors to our garden and gradually I became more enthralled with the subject.

Although I've been a dragon enthusiast for a number of years I still find identification tricky, partly because of their small size and speed of movement, but also because they are seasonal and I need to do some revision each year! But it is easy to see why dragons are fascinating creatures. . . they are incredibly manoeuvrable, have a unique way of mating, come in many colour variations, Southern Hawkers are very inquisitive, some aged females develop pruinescence to avoid harassment by males. . . the list is endless.

## **Ponds**

The best advice for most people who want to get interested in dragons is to dig a pond and monitor the

species that appear. The size of the pond isn't too important. When we moved to our Somerset home about 12 years ago this was the first garden task to be undertaken. It had to be visible from the house and be as large as we could fit into the chosen space. Luckily, we started with a blank canvas so we could be flexible with the design. Apart from being keen gardeners, my wife and I are very interested in all types of wildlife, and also photography. We have always had water features of some sort at our previous addresses as they bring a garden to life and create interest.

I once watched a TV programme about building a pond and the presenter recommended inserting a stick near the side of the pond for visiting kingfishers to perch on. I scoffed at this thinking that this was never likely to happen. However, I followed the advice and was staggered when a kingfisher subsequently appeared on the stick on several occasions. Then I noticed Dragonflies doing similar, making it easier to get photographs, particularly against a plain (water) background.

That old chestnut: dig a pond and see a Broad-bodied Chaser also holds true. Damsels may make an earlier appearance but the first Dragonfly always seems to be this species and they are tolerant of the camera.

The garden photo was taken very recently. I should point out that the original pond (about the same size) sprang a leak a couple of years ago and we couldn't fix it so we bravely took the decision to remove all the plants, bale out all the water, put pond life and sediment into a blow-up paddling pool, take up the butyl liner and replace it all. It was quite an effort but the new version has quickly matured. And we still get plenty of exuviae. The minimum plant requirements seem to be a few reedy plants for larvae to climb up and some water-lilies (or similar) for damsels to lie on.

Recently an exuvia has appeared on the underside of a large gunnera leaf near the top of the plant. It made me wonder how far a dragon is prepared to climb out of the water before emerging from its larval skin.

I've often read of the advice to





position logs near the pond-side to encourage species to lay eggs. Southern Hawkers and Brown Hawkers frequently do this in our garden. In fact I'm amazed at the variety of places where the former species oviposits.

We also have a small round shallow pond with a central reservoir that contains a water-lily. This has become an excellent breeding ground for Southern Hawkers.

### Taking photos

Like birds (and people for that matter), dragons have a 'jizz' that helps with ID. When trying to identify or distinguish between similar species a pair of binoculars and/or a camera are essential. For years I have used Pentax Papilio 6.5 x 21 binoculars and found them to be ideal for close inspection (within a few inches) of all insect types.

I have always used bridge cameras; currently I own a Sony RX10 model III and I'm about to upgrade to a model IV. I know there are more sophisticated (and expensive) cameras out there but if I want to switch quickly from macro shooting to trying to capture a bird flying over, I need simplicity. It's a personal preference, of course, but I don't want to be encumbered with extra lenses. I'm happy with the versatility of the bridge.

The beauty of digital photography is that you can take lots of pictures and even if many are discarded there is the strong possibility that there will be a few good ones as well. My philosophy is to get the photo(s) and then take all the time you need after editing at home to finalise ID.

This may seem like teaching people to suck eggs but I find that flying insects that have landed are more likely to stay where they are if you can avoid moving sideways as you approach them. If you can manoeuvre yourself so that you are able to slowly walk towards them

in a straight line it seems (to me, anyway) to pay dividends.

I've also learnt the value of taking several different views: lateral, dorsal, front-on etc. Otherwise it can be frustrating if a key diagnostic cannot be seen. In reality I know this is tough to do! How many people I wonder try to get the pronotum so that Azure versus Variable Damselfly is easier to resolve?

### Garden sightings

When we first arrived here we were thrilled to discover that Migrant Hawkers were regular visitors and in good numbers. This was the first time we had seen this species in any of our gardens. We also learnt that Brown Hawkers were not that common in our area but they have now started to make regular appearances. Similarly, Small Red-eyed Damselflies have confirmed their reported movement westwards across southern England by their



Shallow circular pond with teneral Southern Hawkers under lily leaves © Neil Galton



Brown Hawker ovipositing onto pond-side logs © Neil Galton



regular arrival at our pond. I am fascinated by Variable Damselflies and am always on the look-out for more photos of their variations but to-date none have been seen in the garden. In the period 2012 to 2016 we had several visits from the blue form of the male Southern Hawker. The guide books suggest that this is rare so either it's actually quite common or we have been particularly fortunate.

The garden, and particularly the ponds, are well-watched and we are delighted to have, so far, recorded 20 species of Odonata. It's a great total for a village garden of about a quarter of an acre. It will be hard to improve on but we had an unexpected visit from a Golden-ringed Dragonfly at our previous suburban Winchester home so there can be surprises. I'm nerdy enough to keep lists of birds, butterflies and moths as well.

When I first started taking pictures I aimed more for portrait photos, but now I like to get ones with action or that bring out a particular feature. For example, I enjoy the interaction between Azure Damselflies and Demoiselle species. The former seem to relish annoying the agrions and the photo results are often pleasing.

Photos of damsels in cop are fairly easy to get but the much shorter mating duration of Dragonflies make them far more challenging to get. I'm slowly accumulating photos of dragons in flight. Not easy, especially with a bridge camera, but if you take enough eventually you get lucky. Ideally I try to get a plain background to the shot to reduce noise.

### Website

I've been photographing wildlife for many years and have accumulated thousands of images. I have a Mac desk-top and use the supplied photo app to edit and organise them all. This has become a very large collection and although it is regularly backed-up I needed a

more convenient way to show other people pictures of interest. So, I took advantage of lockdown and the first version of my web-site went live in June 2020. There have been many updates since. Photos can now be seen by a much wider audience and it also gives me another means of backup.

For more information or to see lots more photographs on a wide range of wildlife and other topics please refer to [www.evoques.co.uk](http://www.evoques.co.uk).



Banded Demoiselle being harassed by an Azure Damselfly © Neil Galton



Male Small Red-eyed Damselfly © Neil Galton



Blue form of the male Southern Hawker © Neil Galton



# Volunteering Project *Andrea Hudspeth*

In November 2021 we found out that our bid put together by our fundraising officer, Sarah Miller, to the Volunteering Impact Fund in Scotland was successful. The bid comprised a set of objectives and spending that would help us to improve and increase our volunteering capacity in Scotland and to actively look to provide opportunities to those who identify as having issues with their mental health. We are all aware of the benefits of getting out in nature and being active, so this seemed like a perfect fit for the BDS.

The broad aims of the project are that we hold volunteer events such as ID training or habitat management work parties, such as we do now, but to improve on that process by getting to know our volunteers better and find out how we can support them and to provide them with other opportunities to build their skills or confidence. With the funding we will also be able to offer some travel expenses and provide transport if that happens to be a barrier to participation in events.

A big part of the process for the BDS will be to get better organised with how we handle data relating to our volunteers so that it is easily accessible to those within our organisation and protected from those without. We are currently trialling a number of different Customer Relationship Management Systems to identify which one best suits our needs in terms of functionality, usability, security and cost. It is hoped that we will be able to find a system where we can store both volunteer and member data (as many of our members also volunteer) and automate some of the time-consuming tasks staff have to complete. The chosen system will enable us to communicate better with our volunteers and members, and to help us to keep track of volunteer contributions so that we can start issuing acknowledgments like long-service awards. Once this system has been designed and set up, we will be asking for your help in ensuring we have up to date information for all our volunteers and members. This is likely to happen via a number of channels, such as our e-newsletter Hawker, the BDS website and direct contact.

Making sure our volunteers are safe and well looked-after at our events is also an aim, so we have started to buy lots of kit that we can issue to volunteers when helping us like waterproof clothing, PPE, safety equipment and a gazebo as well as plenty of tools to get the job done.

This is an exciting project as it will really help all BDS staff to get to know our volunteers better and ensure that becoming a volunteer is a smooth process with ongoing support. The BDS would not be able to achieve its objectives without the fantastic work of all of our volunteers, so we hope the delivery of this project will ensure that they are aware of just how much they are valued by all BDS staff and Trustees.



# Cairngorms National Park Northern Damselfly Project *Andrea Hudspeth*

In October 2021 the BDS were awarded a grant from the Cairngorms National Park Authority to fund a project to improve and increase pond habitat for the Northern Damselfly in the species' strongholds within Strathspey and Deeside.

This was a great result as it followed on from lots of hard work completed by our volunteer recorders over the years, most notably Pat Batty and Stephen Corcorran and also Scotland Officer, Daniele Muir. It followed on from a dedicated study completed by Stephen on behalf of the BDS the year before, the results of which helped us to put in the successful bid for funding. In Stephen's study he noted a number of ponds that had become unsuitable for the Northern Damselfly and highlighted possible areas (if landowner permissions could be sought) where new ponds could be created to provide a linked network.

This background work helped to frame the new project which was managed by Scotland Officer, Andrea Hudspeth. The target set was to identify 10 existing ponds that could be worked on to bring them back into a good condition for the Northern Damselfly and to locate suitable sites where 10 new ponds designed specifically for the species could be created.

Armed with a long list of possibilities, Andrea set off to identify and contact as many landowners as possible. This was quite a long process with some landowners hopping on board quite readily, whilst others needed more coaxing and reassurance. The landowners who we finally worked with comprised a mix of estates, farms bought for rewilding projects, RSPB and NatureScot reserves, community-owned land, a hotel and private home owners with land.

The main constraint was time. Although we had a big target to meet, we only had 6 months to achieve it as the funding needed to be spent by the end of the financial year. We also aimed to complete as much of the work as possible during the winter to minimise disturbance to wildlife as much as possible.



Glenbeg proposed pond site © Andrea Hudspeth



Completed new pond at Glenbeg © Andrea Hudspeth

Finding contractors who were available to work within our timeframes and budget was another major task. Luckily, Fergus Laing of the Glenbeg Estate outside Grantown-on-Spey, had agreed to work with us and he recommended a company he used frequently. Contact was made, and it was agreed that John Kirk Contracts would help us with the ponds at Glenbeg. On two cold, frosty days in February our first new pond and first improved pond were completed on the Glenbeg Estate. We were all thrilled with the results, so we continued to work with John Kirk Contracts on many of the other pond works across the two areas of the National Park.

Over the next couple of months, works continued in earnest to get as many ponds improved or created before the end of March. Whilst we were not able to get all of the ground works completed, we were able to organise works to continue into the next financial year having allocated all of the funds.

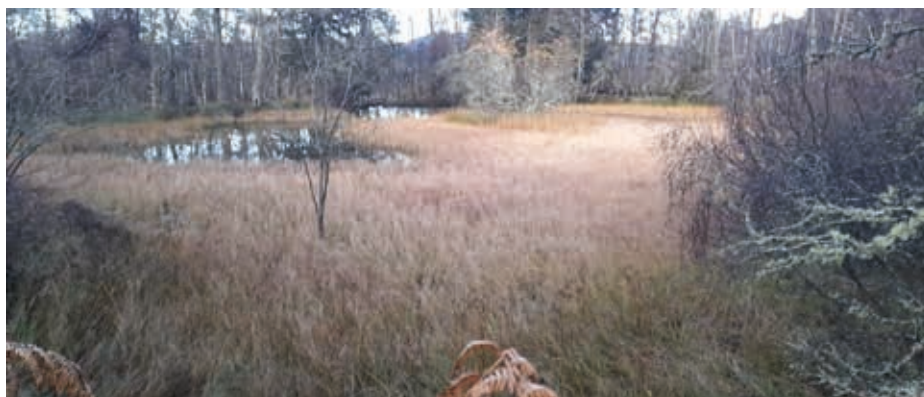
At those sites where management works were needed to improve the ponds for the Northern Damselfly, the type of intervention required varied depending on the state of the habitat and the type of habitat surrounding the ponds. For example, where works were to take place on pool systems within bogs, we were not able to use any machinery. Much of the works needed at these sites involved removing pine saplings from within the bogs pools and also felling the larger trees starting to encroach around the perimeter of the bogs. At Ballater, we were able to remove infilling vegetation within a pond, along with an island that had formed, by machine which completely opened up the pond. We also removed and thinned out a lot of the trees around the edge of the pond.

To date, we have created 9 new ponds, with 2 left to complete and we have improved 10 existing ponds with just 1 left to complete. We have already been receiving feedback from some of the new



sites that Dragonflies have been seen this season, which is such great news.

In July we held an event at the Grant Arms Hotel to thank everyone who was involved in the project and helped to make it a success. This was a great opportunity for National Park staff, landowners, contractors and BDS volunteers to meet each other and celebrate our joint achievements.



Ballater pond before works © Andrea Hudspeth



Ballater pond after clearing of vegetation and trees © Andrea Hudspeth



Andrea Hudspeth with Matthew Hawkins, Cairngorms National Park Conservation Manager



Female Northern Damselfly © Dave Smallshire



Male Northern Damselfly © Dave Smallshire





© Daniele Muir

## Stirling MSP becomes Nature Champion for Azure Hawker Dragonfly with Visit to Hotspot Flanders Moss National Reserve *Daniele Muir*

The weather was sunny for our visit to the Dragonfly Hotspot Flanders Moss National Nature Reserve with new Azure Hawker Nature Champion Evelyn Tweed MSP. In early August BDS Scotland Officer Daniele Muir, met Nature Scot Site Manager Amee Hood, and the site's dragonfly recorder David McCulloch, to show Evelyn the wonderful dragonflies and damselflies that make Flanders their home.

Daniele said "It was a beautiful day for spotting dragonflies and introducing Evelyn to these wonderful insects. Although Evelyn's species, the Azure Hawker, isn't found at Flanders Moss, we managed to see Black Darters and Large Red Damselflies flying around, and even a pair of Common Hawkers mating!

When we carried out some pond dipping, we also found some larvae of Four-spotted Chasers and Common Hawkers. Dragonflies spend most of their life underwater – sometimes up to five or six years! – and only live for a few weeks as the beautiful adults that we love to watch on sunny days.

Many of the dragonfly species that rely on peatlands for their home, such as the Azure Hawker and Northern Emerald, are threatened by climate change and the extraction of peat for compost and I look forward to working with Evelyn to secure a better future for these rare peatland dragonflies."

Evelyn Tweed, SNP MSP for Stirling, said; "It was absolutely brilliant to meet the team at Flanders Moss and go dragonfly spotting in such beautiful surroundings. It's a fantastic organisation helping to celebrate and protect such a wonderful species.

Surveys over the past few years have shown that the Azure Hawker dragonfly is being severely impacted by climate change as erratic rainfall and higher temperatures have resulted in their habitat drying out. BDS are hoping to trial digging new, deeper pools of different sizes and shapes to see if they will take readily to the new habitat, and I look forward to supporting and championing all the work they do to protect dragonflies."





# Azure Hawker surveys, habitat changes and trials at Corrour Estate

*Daniele Muir*

There has been a concerted effort by volunteers this year to visit known Azure Hawker sites to carry out larval surveys and assess the condition of their bog pool habitat. Pat Batty, Country Recorder for Scotland, visited north-west Highland sites in May to discover that, due to a very dry spring, the majority of Azure Hawker pools had dried up and contained no life whatsoever. This was also the case at top sites at Bridge of Grudie and near Loch Maree, with only about ten percent of pools, which previously contained larvae of this species, retaining water.

Pat and Scotland Officer Daniele Muir then visited Azure Hawker Key Site Corrour Estate where they met Sarah Watts, the estate's Conservation Officer. A similar picture was found here with the majority of the pools having dried up in hot, dry weather, forming a crust which possibly created anaerobic conditions underneath. However, we did find some larvae in the deeper pools where it is generally unusual to find Azure Hawker, possibly due to competition with Common Hawker. In total nine Azure Hawker larvae were found in four pools; in comparison, 231 larvae were found in September 2019 and three larvae were found in September 2021. Conditions in these pools were good; the pools had refilled with water after dry conditions and the water was warming up, with the larvae near the surface amongst, or at the edge of, *Sphagnum cuspidatum* (Feathery bogmoss).

Nearly 200 pools were sampled at Corrour Estate; the majority had been dry and had a solid base of compressed silt or *Sphagnum*, or were infilled with *Sphagnum cuspidatum*, and contained no aquatic life at all. In the deeper pools a small number of Common Hawker and Four-spotted Chaser larvae were present and we also found a number of White-faced Darter larvae, as well as two in the process of emerging and a further two adults on the wing.

As one of the foremost sites for Azure Hawker in the country, Corrour Estate is keen to experiment by create new pools of differing sizes, shapes and depths to see how these will be taken up by Azure Hawkers for breeding. This work will be carried out by diggers later in the year, if all goes to plan.

The estate has also carried out peatland restoration work over the past few years which has created ideal conditions for rare species such as Azure Hawker and White-faced Darter. We are developing a monitoring plan to record the colonisation of all these new pools, the results of which will guide the creation of future drought resilient habitat which is less likely to dry out in the erratic rainfall and increasing temperatures we are experiencing.

With climate change threatening the future of Azure Hawkers in Scotland we desperately need your help in monitoring this species. Please send in all of your larvae and adult sightings to the BDS recording scheme and, if possible, include a description of the habitat conditions within which they were recorded. Thank you for your support!



© Daniele Muir



© Daniele Muir





# Field Notes



**Left:** Southern Hawker chooses an unusual spot for her eggs.

**Location:** Garden in Rochester, Kent

By Alan Whittaker

When mooching around down near your pond in your best moccasins, the last thing you would expect to have happen, is a female Southern Hawker Dragonfly land on your slipper and attempt to lay its eggs! I know they can be inquisitive little creatures but really!

**Right:** Mating White-faced Darters

**Location:** Drumburgh Moss, Cumbria

**Date:** 19 May

By David Clarke

This is the first ever observation of mating White-faced Darter at Drumburgh Moss, after the species introduction project was started in 2019.







**Left:** Emperor Dragonfly takes a bite

**Location:** Whiteley Village, near Walton On Thames

By Alan Whitehead

We have about 200 acres of private mixed woodland and yesterday I saw this Emperor dragonfly, which looked to be struggling to fly along the edge of the golf course, which is set within the woodland. He seemed to be carrying something dark and as I watched, he stopped on a thistle. That gave me the opportunity to take the attached photo and I was surprised to see that he was carrying an immature Migrant Hawker. I know that Emperors are aggressive and fast, agile flyers, but I've never seen one capture something almost as big as himself.

**Right:** Where's the other half?

**Location:** Spynes Mere, Surrey

By Michael Jones

"I saw a Common Blue Damselfly perched on the ground at Spynes Mere in Surrey, but only realised something was amiss when I lay down next to it to take a closer look!"



If you photograph anything unusual or of interest please let our editor know:  
[lauren.kennedy@british-dragonflies.org.uk](mailto:lauren.kennedy@british-dragonflies.org.uk)



# Review

## Eleanor Colver

### Identification Guide to Garden Insects of Britain and North-West Europe - Identification Guide

By Dominic Couzens and Gail Ashton

Publisher: Bloomsbury (Bloomsbury Wildlife), London.

ISBN: PB: 978-1-4729-8222-3. 160 pages.

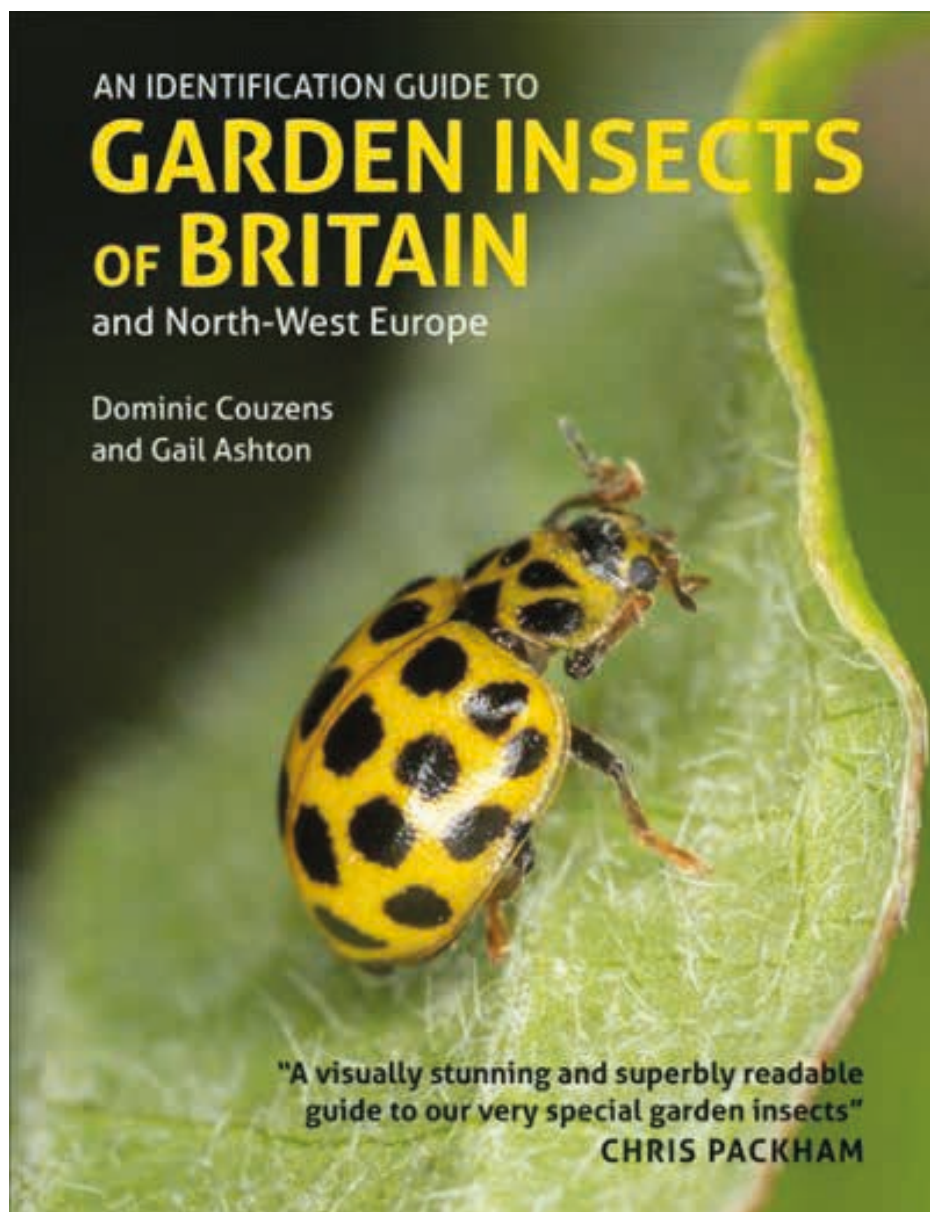
RRP £30.00 (softback).

Having recently, for the first time, moved into a house with a garden, I have been in search of a general guide to help me learn more about my neighbourhood insects. As a result I was very pleased to be asked to review this book and it certainly fits the bill. I would recommend it to any gardener looking to learn about the creatures they encounter while weeding the flowerbeds.

It contains fascinating descriptions of the ecology of 150 British garden insects with high quality close up photos. The page layout is visually pleasing, the language is easy to read and the sections well organised.

Judging the book based on the section on Odonata (which is the only section I feel qualified to judge!) the photos, and description and identification tips were certainly up to standard.

Each insect profile contains information of what time of year you are likely to encounter the species, its life cycle and its habitat, with details such as the species' food plants. As a result you can use the book to alter your garden, adding



plants and creating features to try and attract certain species.

I doubt an experienced entomologist would gain much insight from this guide, and some of the species, such as the Stag Beetle, which is not common or widespread, seem an odd choice to feature. However, generally the featured species seem well selected, and for the average gardener this book provides an well written and fascinating guide. The first section contains useful tips for those wanting to dip their toe into entomology, such as insect anatomy and how to take photos of insects for enjoyment and identification. There's also information on gardening for insects, which we at the BDS, are very keen on!

My copy has gone on to a new

home where I'm sure it will be put to good use. My neighbour and her grand daughter rescued an Elephant Hawkmoth caterpillar from their driveway so I decided to gift the book to them so they could learn all about its life cycle and the beautiful adult it will become. Hopefully this book will inspire a future entomologist!



# Leave a Lasting Legacy

Around a third of our income is from people like you who choose to leave us a gift in their Will. A legacy to the British Dragonfly Society will provide a lasting gift, helping us to safeguard our Dragonflies and Damselflies to ensure future generations can enjoy these fascinating insects.

It is thanks to legacy income that we were able to employ a fundraiser five years ago, and that in turn has led to significant funding that has allowed us to grow our staff team. With the continued impact of climate change our dragonflies and damselflies are at increasing risk with precious wetlands drying up, our work is more important than ever. We have so many ambitious and exciting ideas for future projects, and legacy income provides us with the additional funds to grow and develop our projects.

Please consider leaving something to British Dragonfly Society when you write or update your will.

We are so grateful for your continued support.

You may like to use the following wording to include in this legacy:

"I give the sum of £..... to British Dragonfly Society (Registered Charity No. 1168300), Ashcroft, Brington Road, Old Weston, Huntingdon, PE28 5LP for its general purposes."

## A Gift in Memory

Celebrating and commemorating the life of your loved one with a gift in their memory is a fitting tribute that helps to support our work for Dragonflies and Damselflies. We're always incredibly touched and grateful to receive donations large or small, which will have a lasting impact for generations to come.

# Checklist of the Damselflies & Dragonflies of Britain & Ireland

Last Revision: 11/8/20. The sequence and nomenclature follow Schorr and Paulson, July 2013:

<http://www.pugetsound.edu/academics/academic-resources/slater-museum/biodiversity-resources/dragonflies/world-odonata-list>

**Table 1. Category A: resident and/or regular migrant species recorded since 2000**

This category comprises species with well-established breeding populations and migrant species that have been recorded regularly since 2000, the latter often attempting to establish temporary breeding populations.

ZYGOPTERA	Damselflies	ANISOPTERA (cont'd)	Dragonflies (cont'd)
<b>Lestidae</b> <i>Chalcolestes viridis</i> <i>Lestes barbarus</i> <i>Lestes dryas</i> <i>Lestes sponsa</i>	<b>Emerald Damselflies</b> Willow Emerald Damselfly Southern Emerald Damselfly Scarce Emerald Damselfly Emerald Damselfly	<i>Anax ephippiger</i> <i>Anax imperator</i> <i>Anax parthenope</i> <i>Brachytron pratense</i>	Vagrant Emperor Emperor Dragonfly Lesser Emperor Hairy Dragonfly
<b>Calopterygidae</b> <i>Calopteryx splendens</i> <i>Calopteryx virgo</i>	Banded Demoiselle Beautiful Demoiselle	<b>Gomphidae</b> <i>Gomphus vulgatissimus</i>	Common Clubtail
<b>Platycnemididae</b> <i>Platycnemis pennipes</i>	White-legged Damselfly	<b>Cordulegastridae</b> <i>Cordulegaster boltonii</i>	Golden-ringed Dragonfly
<b>Coenagrionidae</b> <i>Ceragrion tenellum</i>	Small Red Damselfly	<b>Corduliidae</b> <i>Cordulia aenea</i> <i>Somatochlora arctica</i> <i>Somatochlora metallica</i>	<b>Emeralds</b> Downy Emerald Northern Emerald Brilliant Emerald
<i>Coenagrion hastulatum</i> <i>Coenagrion lunulatum</i> <i>Coenagrion mercuriale</i> <i>Coenagrion puella</i> <i>Coenagrion pulchellum</i> <i>Coenagrion scitulum</i> <i>Enallagma cyathigerum</i> <i>Erythromma najas</i> <i>Erythromma viridulum</i> <i>Ischnura elegans</i> <i>Ischnura pumilio</i> <i>Pyrrosoma nymphula</i>	Northern Damselfly Irish Damselfly Southern Damselfly Azure Damselfly Variable Damselfly Dainty Damselfly Common Blue Damselfly Red-eyed Damselfly Small Red-eyed Damselfly Blue-tailed Damselfly Scarce Blue-tailed Damselfly Large Red Damselfly	<b>Libellulidae</b> <i>Leucorrhinia dubia</i> <i>Libellula depressa</i> <i>Libellula fulva</i> <i>Libellula quadrimaculata</i> <i>Orthetrum cancellatum</i> <i>Orthetrum coerulescens</i> <i>Sympetrum danae</i> <i>Sympetrum fonscolombii</i> <i>Sympetrum sanguineum</i> <i>Sympetrum striolatum</i> *	<b>Darters, Chasers, Skimmers</b> White-faced Darter Broad-bodied Chaser Scarce Chaser Four-spotted Chaser Black-tailed Skimmer Keeled Skimmer Black Darter Red-veined Darter Ruddy Darter Common Darter
<b>ANISOPTERA</b> <b>Aeshnidae</b> <i>Aeshna affinis</i> <i>Aeshna caerulea</i> <i>Aeshna cyanea</i> <i>Aeshna grandis</i> <i>Aeshna isoceles</i> <i>Aeshna juncea</i> <i>Aeshna mixta</i>	<b>Dragonflies</b> <b>Hawkers</b> Southern Migrant Hawker Azure Hawker Southern Hawker Brown Hawker Norfolk Hawker Common Hawker Migrant Hawker		

\* - includes dark specimens in the north-west, formerly treated as a separate species *Sympetrum nigrescens* **Highland Darter**

**Table 2. Category B: vagrant species**

Since 1998 records of these species have been assessed by the Odonata Rarities Committee.

ZYGOPTERA	Damselflies	ANISOPTERA (cont'd)	Dragonflies (cont'd)
<b>Lestidae</b> <i>Sympecma fusca</i>	<b>Emerald Damselflies</b> Winter Damselfly	<b>Libellulidae</b> <i>Leucorrhinia pectoralis</i> <i>Crocothemis erythraea</i> † <i>Pantala flavescens</i> <i>Sympetrum flaveolum</i> <i>Sympetrum pedemontanum</i> <i>Sympetrum vulgatum</i>	<b>Darters, Chasers, Skimmers</b> Large White-faced Darter Scarlet Darter Wandering Glider Yellow-winged Darter
<b>ANISOPTERA</b> <b>Aeshnidae</b> <i>Anax junius</i> <b>Gomphidae</b> <i>Stylurus flavipes</i>	<b>Dragonflies</b> <b>Hawkers</b> Green Darner		Banded Darter Vagrant Darter
<b>Corduliidae</b> <i>Somatochlora flavomaculata</i>	River Clubtail  Yellow-spotted Emerald		

\*\* - has bred. † - has bred in the Channel Islands.





**Table 3. Category C: former breeding species now locally extinct in the UK**

Any further records of these species will be assessed by the Odonata Rarities Committee.

ZYGOPTERA	Damselflies	ANISOPTERA	Dragonflies
Coenagrionidae		Family uncertain	Emeralds
<i>Coenagrion armatum</i>	Norfolk Damselfly	<i>Oxygastra curtisii</i>	Orange-spotted Emerald

**Table 4. Category D: species recorded only in the Channel Islands**

ANISOPTERA	Dragonflies
<i>Orthetrum brunneum</i>	Southern Skimmer
<i>Sympetrum meridionale</i>	Southern Darter

**Table 5. Category E: exotic species introduced accidentally**

These records have come principally from aquatic nurseries (Parr, 2000).

ZYGOPTERA	Damselflies	ANISOPTERA	Dragonflies
<i>Argia fumipennis</i>	Variable Dancer	<i>Anax gibbosulus</i>	Green Emperor
<i>Ceragrion</i>	Painted Waxtail	<i>Anax guttatus</i>	Lesser Green Emperor
<i>cerinorubellum</i>		<i>Crocothemis servilia</i>	Oriental Scarlet
<i>Enallagma signatum</i>	Orange Bluet	<i>Erythemis simplicicollis</i>	Eastern Pondhawk
<i>Ischnura posita</i>	Fragile Forktail	<i>Rhodothermis rufa</i>	Spine-legged Redbolt
<i>Ischnura senegalensis</i>	Marsh Bluetail	<i>Tramea transmarina</i>	Ocean Glider
		<i>euryale</i>	
		<i>Urothemis bisignata</i>	

## Guidelines for Contributors

All material should be sent to the Editor at the email address on the inside front cover. If in doubt, please contact the Editor to discuss potential contributions and to advise on presentation and format. By contributing to **Dragonfly News** you give permission for the work to be used in other ways with the same attribution including reproduction on the BDS website. All contributions on any aspect of the British and Irish dragonfly fauna are welcome for consideration at any time. Contributions on continental European and other species are also considered for inclusion. Contributions by naturalists based in Britain or Ireland travelling overseas are also welcome.

Articles requesting information or providing news of forthcoming events are welcome. The editor is happy to receive material by email, preferably in MS WORD (DOC file extension) or txt format. Typed material requiring rekeying is less welcome (unless very short!) but will still be considered. The Editor reserves the right to make changes without prior reference to the author, but will endeavor to contact the author if a lot of editing is required. Please provide contact details with anything you send and note the copy deadlines printed on inside front cover if you want something to appear in a particular issue. Photographs should be high quality jpg format with the quality setting at its highest, please do not embed in a document as this compromises quality. Please use a file sharing service such as drop box or 'Wetransfer' to send large files. Thank you.



# BDS Shop

**Les Larves de Libellules de Die  
Libellenlarven von  
Paul-André Robert**

**Paul-André Robert and his life's work  
on dragonfly larvae**

*Compiled by Christophe Brochard*

*Language: Bilingual in French and German*

Paul-André Robert (1901-1977) was a Swiss artist and naturalist. In Europe Robert is best known for his book *Les Libellules* ('Dragonflies'), which appeared in 1958. Less well-known is the fact that Robert began to work on a monumental monograph on European dragonfly larvae at the age of sixteen. Producing the manuscript, containing text as well as

illustrations, consumed most of his life and was only just completed at the time of his death.

This magnificent work remained unpublished until now. This book finally presents Robert's 107 watercolour illustrations of dragonfly larvae, all in their original size and of unparalleled beauty and scientific precision. In addition, the book features his numerous line drawings and pencil sketches of morphological details, descriptions of species and an identification key.

This book, which is bilingual (French and German), is a unique combination of art and science.

It is an invaluable resource for entomology professionals and a significant collector's item for admirers of high-quality entomological books. It is also a stunning piece of artwork that will please anyone with an interest in natural history, realistic art and illustration.

As an honorary tribute to Robert, an international team of dragonfly experts added an extensive introduction to the book.

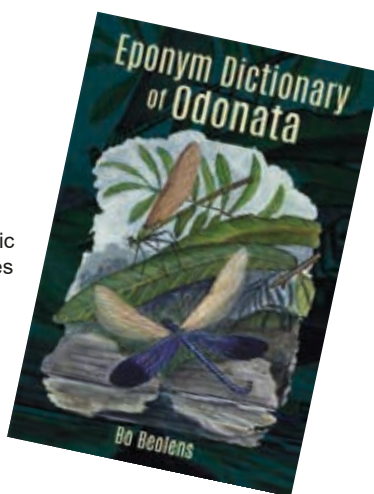
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## The Eponym Dictionary of Odonata

*by Bo Beolens*

The Eponym Dictionary of Odonata is a comprehensive listing of all people after whom damselflies and dragonflies have been named in scientific or common names. Each entry provides details of the species and a brief biography of the person. It is also cross-referenced so that the relationships between scientific authors, entomologists and others can be followed. Many entries have been contributed by the people so honoured who are not necessarily odonatologists, entomologists, zoologists or even great men of science. Many damselflies and dragonflies are named for the author's family members, friends and those who collected the species holotypes, while others are figures from myth or history. In fact, it could be anything from the author's mother to a favourite musician! Because entries may include details of dates, places, educational and work institutions, it is possible to discover information about each person and for a picture to be built of how the science sometimes follows groupings of colleagues or those significantly influenced by charismatic teachers. The Dictionary includes other names which might, at a glance, be thought to be eponyms yet are not in the truest sense. These may be species named after characteristics embodied in characters from literature, whole peoples, acronyms or toponyms, etc. To some extent it can read like a canon of the great women and men of science over the last several centuries. Interestingly there are species named after as many as three generations of the same family, veiled references to old lovers, sycophantic homage, financial patronage, etc., as well as all the more 'legitimate' reasons for naming species. Not surprisingly, odonatologists exhibit a range of opinion on the practice, from naming all species after people, to wanting all eponyms banned; they can be totally humourless and pedantic or full of fun and irreverence. Like all of us they have as many reasons for their naming's as ordinary folk have for naming their children or pets! Underlying all this, however, is the value of this volume in cataloguing this fascinating aspect of science for all users, whether scientists or interested lay readers.

**Price £38.00 plus £5 P&P or via the shop page**



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## Dragons & Damsels An Identification Guide to the British & Irish Odonata

This is a comprehensive and user-friendly photographic identification guide to all species, sexes and forms of British and Irish dragon- and damselflies, with essential field notes and habitat photographs.

Review:

In the main, most field guides follow the same pattern, with species accounts laid out in taxonomic sequence. The new guide by Adrian Riley does indeed have two chapters of species accounts covering damselflies and then dragonflies separately. Where this new guide differs, however, is in its approach to the identification of individual insects.

Again, damselflies and dragonflies have their own chapters, but within these, species are grouped according to their appearance, with males and females often treated separately due to their differing colours and patterns. This makes sense when you understand that early dragonfly observers actually thought that, for example, male and female Banded Demoiselles were of two different species because they looked so dissimilar.

Adrian Riley's meticulous approach to each species, sex and colour-form throughout the book should leave no-one in doubt of an identification. There is no question at all that this new guide, with its fresh approach, detailed descriptions and clear photographs, will find a place on the bookshelf of many dragonfly watchers and recorders, no matter how experienced. — Dr Pam Taylor, British Dragonfly Society

Price £22 plus £3.00 P&P

