

Darter

Magazine



The State of UK Dragonflies

Adopt a Site &
Complete Lists

The Wandering Willow Emerald

Following the fortunes of a rare
damselfly in the UK.

Welcome

Hello and welcome to the 2016 edition of Darter Magazine. Read on to continue following the fascinating journey of our dispersive dragonflies, including a detailed account of the Willow Emerald Damselfly's progress. A huge thank you is in order to our VCRs, who have done a brilliant job in providing us with the 2015 county reports. Read on and enjoy!

Genevieve

Genevieve Dalley, **Editor**

A male **Vagrant Emperor**, a prominent migrant species in 2015.



From the Records Office

David Hepper

Steve Prentice retired in May last year and I was appointed Records Officer to start in November, promptly leading the VCR Training Day near Nottingham at the end of that month. Due to other project commitments I've been unable to do the full 2.5 days per week but do have significant progress to report. Apologies to those of you who haven't received timely responses to emails sent to 'records@british-dragonflies.org.uk'.

iRecord

Before he left, Steve and the DRN had already decided that the BRC's iRecord system would become the official repository for BDS data. Since starting, I've found people using Recorder (various), MapMate, AditSite, Living Record, BioBase/Darter, Excel and Adnoto. There may be more. This situation makes life a bit difficult. Of these rivals to iRecord, only Living Record appears to be modern, well-supported and reliable so I do intend to make contact with the developer and see how we can co-operate. Despite personal loyalties among our recorders to these older systems, I see my job as helping to wean VCRs off them and onto iRecord by explaining how the features they "can't do without" are implemented and by campaigning for those features not yet available to be added promptly by the BRC developers.

If you have some exceptional reason to continue with another system I'll try to



Species, such as this female **Scarce Emerald Damselfly** require expert verification. This must be done on iRecord.

Migrant and Dispersive Dragonflies in Britain during 2015

It was a relatively eventful year for migrants and new colonists during 2015. Many events are described in detail elsewhere in this issue of Darter, or in Dragonfly News, but a brief summary is given here in case it helps observers plan fieldwork for the coming season. Several species would indeed benefit from further monitoring and research.

Southern Emerald Damselfly: This species did well at its breeding site at Cliffe in Kent. At its other well-known site at Winterton Dunes in Norfolk, just a single individual was however reported. There was also a singleton noted at Gunners Park in Essex during 2015. The species deserves continued close scrutiny.

Willow Emerald Damselfly: Significant range expansion was noted during 2014, and this continued during 2015 with the most significant new record coming from Woods Mill, West Sussex, during late September. A more detailed analysis of the species' progress in colonising southeast England is given elsewhere in this issue. Further new sites for the species are likely to be discovered during the coming season.

Dainty Damselfly: After no reports of adults during 2014, it was pleasing to have the species recorded once more from its Kentish strongholds. Will new sites be found in 2016?

Southern Migrant Hawker: This recent colonist had a good year in its greater Thames Estuary strongholds. In addition, no less than four individuals were reported from sites well away from this area, presumably involving new immigrants. Although only singletons were noted away from Kent/Essex, the wide spread of these records (from Suffolk, East Sussex, Cornwall and Lancashire, with reports covering the period 10 July-19 September) rather suggests that significant immigration may have occurred, but many individuals went un-noticed. Will new breeding sites have become established as a result of these arrivals?

Norfolk Hawker: Recent range expansion by this species continued during 2015,



help you to export from it and import into iRecord. Please note that you will never be able to import pre-verified records to iRecord. Verification must be done within iRecord.

Record Flow

In summary, dragonfly records may be entered directly to iRecord or find their way via VCRs or county recorders into another system before being uploaded in bulk to iRecord.

Once verified, they flow to the NBN Gateway, the national database of biological recording. We expect this to become the primary source of curated dragonfly records for use by government agencies, consultancies and individuals and will target efforts to improve the data retrieval tools capability. From the NBN, the next and final step is to the Global Biodiversity Information Facility (GBIF) which, as its name suggests, aggregates data from national organisations including our own NBN to a global database. This step is handled by the NBN without our involvement.

In more detail:

iRecord for Data-Entry

There are three ways to enter dragonfly records to iRecord:

- Interactively on the BDS's custom form.
- By bulk upload from a text file.
- Using the Dragonfly Web App.

The iRecord "Dragonfly App"

This app works on mobiles, tablets and PCs - anything with a modern browser. Don't go to the Apple Store or Google Play to collect the app; just visit the app's site at <http://www.brc.ac.uk/app/iRecord-dragonflies>. It works both online and offline and synchronises your observations when a connection is available, so you don't need a mobile data signal when recording with a smartphone in the field. The app has been well received and seems to be reliable but is of limited use to VCRs.

Uploading to iRecord

For larger collections of records, VCRs can upload to iRecord from a text file. I'll be distributing specific guidance by email soon - hopefully before you read this.

Verification with iRecord

All records submitted to iRecord need verification and this is a job for the VCR. Again, I'll be distributing specific guidance



©André Karwath

The Yellow-winged Darter, an occasional migrant to the UK. Data from the BDS will contribute to The Global Biodiversity Information Facility, allowing conservationists to track the movement of such dispersive species.

with the first records for Hertfordshire being made at Amwell during late June.

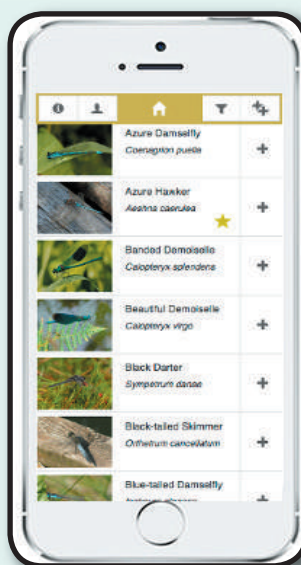
Vagrant Emperor: The mild late autumn was associated with a significant arrival of Vagrant Emperors, with seven individuals being noted between 11 October and 10 November. Dragonflies that were, rather remarkably, seen in southern England over the Christmas period may also have included this species. Clearly Vagrant Emperors are going through a phase where they are now being recorded in Britain with some regularity.

Lesser Emperor: There was a good series of records during the year, with reports from 15+ localities. Interestingly, a number of these sightings may have referred to locally-bred individuals. During early July, several Lesser Emperors were noted from the Trinity Broad complex in Norfolk, where good numbers had also been seen the previous year. On 10 July, an immature male with one uninflated hindwing was also seen near the Buckinghamshire-Hertfordshire border close to Tring. Although it could fly, this individual seems unlikely to have come far. Will further locally-bred individuals be seen in 2016?

Yellow-winged Darter: Two records from Winterton Dunes, Norfolk, during early August represent the first UK sightings of this species for several years.

Red-veined Darter: Last year saw some very major influxes of Red-veined Darter, these substantial arrivals having now become almost annual in occurrence. Sightings reached as far north as Millars Moss in Berwickshire and Aberlady Bay in East Lothian. During the autumn, locally-bred individuals were reported from a handful of sites in southern England and East Anglia, but given the extent of the earlier influxes, more autumn records might perhaps have been expected. It is possible that most larvae resulting from breeding attempts during 2015 may have been developing too slowly to allow a second generation in the year, and emergences in spring/early summer 2016 may thus perhaps be anticipated. It is likely that further fresh immigration will also occur.

Adrian Parr



©Courtesy of the BRC

A screenshot of the iRecord Dragonfly App.



by email soon regarding how to select unverified records for your VC and how to process these.

Uploading the BDS's historical data to iRecord

At the end of October last year we uploaded the complete BDS recordset to Dec 2014 to the NBN Gateway as "GA000012 - Dragonfly records from the British Dragonfly Society's Dragonfly Recording Network for the period up to 2014" and put it live. Next we will upload the same to iRecord so that VCRs and others are able to examine our complete data from one system rather than two. Clearly, although we aim to make the NBN Gateway the go-to system for examining data, I haven't forgotten that VCRs in particular need retrieval tools within iRecord to handle their verification duties.

Open Data and the NBN

At the NBN Conference in York last October their change of strategy was publicised. Following work back in February 2015 on a 5-year strategy for NBN, led by their CEO John Sawyer, the NBN trust now appreciates that their default data usage policies are putting off those with the most pressing needs to quote accurate data: particularly the environmental and developmental consultancies whose job it is to check the impact on nature of land use changes. It takes too long and involves jumping too many hurdles for consultancies to obtain the necessary licences from each of the many relevant data providers for each site. The new strategy aims to turn the data entrusted to the NBN from a 'hoard' to a 'treasure trove' and the BDS, as one among many data providers, was encouraged to follow the lead set by BTO and other and sign up to a more liberal licence - since the NBN cannot unilaterally make this kind of change. I'm pleased to report that in January this year the BDS Trustees approved a proposal to adopt the Creative Commons - By Attribution (CC BY) licence type, allowing anyone to quote BDS data so long as they acknowledge the BDS's copyright. Essentially, they no longer have to seek and receive specific permission first. I see this as a major step forward.

Conclusion

I hope this article is useful and would welcome your feedback. Don't miss the BDS Spring Meeting in March at which I'll be giving a demonstration of these systems in action.

Working Together for the Southern Damsel



At the end of 2015 and start of 2016, the BDS has been working with Natural Resources Wales (NRW) to improve Southern Damsel habitat on the Gower peninsula.

A male Southern Damsel



One of the streams after restoration

© Mair Rees

© Mario Finkel

Southern Damsel (*Coenagrion mercuriale*) is listed as Endangered in the UK, having become extinct in seven European countries. On the Gower peninsula, south Wales, the species occupies small streams on heathland sites. A lack of sufficient grazing by heavy livestock has led to these streams becoming shaded and overgrown. As a warmth loving species, requiring open flowing water, this made many streams

on the Gower no longer suitable. Consequently, the population here has been declining.

In September 2015, the BDS Conservation Officer, along with staff from NRW, visited the Gower sites. We decided urgent work was needed to restore the site for Southern Damsel. NRW raised the funds required for the project, carried out by the Swansea Natural Resource

Management Team. The BDS, as well as staff from the Pembrokeshire National Park Authority, provided restoration advice to the team.

The work was successfully carried out in January 2016. Over the next few years, monitoring of the site will be carried out to assess how the work has benefited the Southern Damsel. As the habitat develops, we hope to see the species re-colonising the improved streams from nearby populations.



The State of Dragonflies 2020

Dave Smallshire

A Southern Hawker, a species with a rapidly changing distribution. © Linda Martin

**In the wake of the Atlas, the BDS has
committed to producing a 'State of
Dragonflies' report...and we need your
help.**



Creating the 'State of Dragonflies in Britain' report will entail the production of trends to determine how each of our breeding species is faring. The latest thinking in population surveillance is that simple lists of species recorded during site visits can yield robust population trends. In our DragonflyWatch recording framework these are referred to as Site Lists, also known as Complete Lists (e.g. as in BirdTrack). These will be essential to the production of trend statistics.

Complete Lists

A Complete List is simply a list of the adult dragonfly species you see during a single visit to a wetland site. The aim is to record all of the species likely to be breeding at the site during the course of a season, and ideally to repeat that each year. All Complete List records will be used in the production of species trends, so you can contribute through any visits you make to wetland sites.



© Keith Noble

Llangorse Lake, Brecon Beacons. Complete lists of dragonflies at sites like this can provide us with data with which to carry out robust trend analyses.

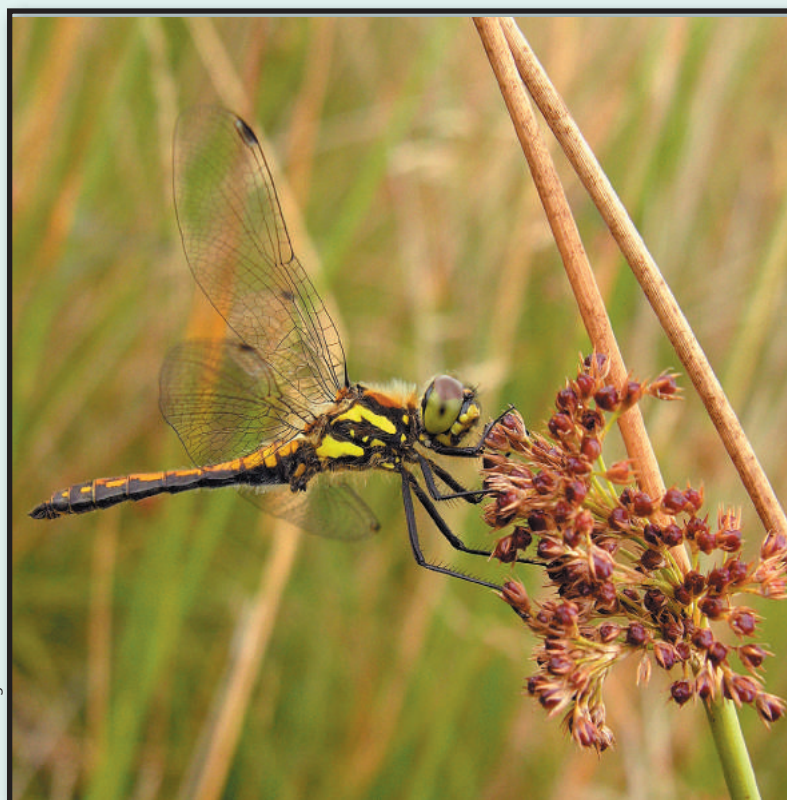
Better still ... Adopt a Site

The value of Complete Lists and the accuracy of the population trends they produce are greater if you can visit the same site (a) throughout the flight season and (b) in successive years. So, we are asking you to 'adopt' a site: i.e. agree to visit a chosen site two or three times each year and in successive years, in order to record all breeding species each year. Spread your visits between May and September to ensure you record the full range of breeding species. This should not be too taxing or too great a commitment and we hope being a 'Complete Lister' at 'your' adopted site(s) will appeal to many dragonfly watchers across Britain!

Choosing a site

Ideally, the sites chosen should provide records of all the species that breed in each (Vice) county. The species which are hardest to produce trends for are the scarce ones, so it will be important that at the (Vice) county level the sites surveyed hold the full range of species and are well-sampled. Vice-county Recorders have a good idea where the best suite of sites might be to achieve this. They should also know who might take them on, so they might be contacting you soon! If you wish to take on a site for Complete Lists, please contact your VCR before the season gets going. It is sensible that sites chosen for Complete Lists are easy to access and view. However, sometimes this may not always be possible, especially for species associated with moorland bogs; as these hold some of the species (e.g. Black Darter) that might suffer as a result of a warmer climate, we make a special plea for some of these sites to be surveyed.

So, we ask each VCR to identify a handful of prime sites to cover all local breeding species and to match recorders with those sites.



© David Kitching

A male **Black Darter**; a species at risk from climate change.



Making a Complete List

As a guide to how to make a Complete List, where possible walk around the site and cover what you think will be the main breeding areas until you are reasonably sure you've seen most of the species present. Close-focus binoculars can be useful to confirm identifications, but please don't list a species you aren't sure about. We don't want to be too prescriptive about how long should be spent surveying and how a site should be defined; these will vary, so please use your judgement and common sense. The same applies to weather conditions, though aiming for a warm, calm, sunny day will help to produce a good list. However, even if a visit is less than perfect, a list is still worth submitting, as are any lists you make during visits to sites other than those you have 'adopted'; in fact, there's no obligation to adopt a specific site - you can still contribute valuable data by submitting species lists for any one-off visits you make to a wetland.

Submitting Complete Lists

We now encourage recorders to submit records online at any time via iRecord or the iRecord app, but if you prefer to send records to your VCR, then please remember to denote when you have made a Complete List. As for other records, it will be necessary to include the date site and grid reference for all Complete Lists.

Other Dragonfly Records

The data from Complete Lists will also contribute towards our knowledge of dragonfly distribution, together with the many incidental records you make each year. There will still be a need for ad hoc records from any location! At the top end of the DragonflyWatch recording ladder is detailed, systematic recording for important dragonfly sites: Priority (or Key) Sites. Complete Lists will form part of the information recorded from many visits to Priority Sites, but typically in addition to information about breeding and abundance. You may be able to record such additional information during visits to an adopted Complete Lists site, which of course adds even more value to your visit.

So whether you're an 'Incidental Recorder', a 'Complete Lister' or a 'Systematic Surveyor', rest assured that your data will be put to the best uses in monitoring and conserving our dragonflies.



© David Kitching

A **Black-tailed Skimmer** basking in sunshine. For best results with complete lists, carry them out on warm, calm and sunny days.



© Steve Cham

A newly emerged **Brilliant Emerald**, evidence of a probable successful breeding site.



© Jackie Gilliland

Exuvia of the **Common Hawker**. Exuviae are the only true confirmation of a dragonfly breeding site.



Colonisation of England by the Willow Emerald Damselfly

Adrian Parr

Just a decade ago, the Willow Emerald Damselfly (*Chalcolestes viridis*) had only ever been reliably recorded from Britain on two occasions – an adult found dead at Hankham Clay Pit near Pevensey, East Sussex, during 1979 and an exuvia discovered at Cliffe Marshes, Kent, during 1992. In August 2007, an individual was then noted at Trimley near the Suffolk coast. It is suspected that this damselfly was one, of what were probably several, that arrived on a plume of warm air from the near continent on the night of 4 August that also carried infected midges bringing the Bluetongue virus (an animal disease then new to Britain) that similarly appeared in southeast Suffolk during late summer 2007.

There were to be no records of the Willow Emerald in 2008, probably because the species was overlooked as a result of its unique behaviour of spending more time in trees than at the water's edge, but 2009 saw numerous reports from southeast Suffolk and northeast Essex, close to where the 2007 record had been made. Records included a number of teneral, suggesting that successful colonisation had already taken place. An important record was also to come from Strumpshaw Fen in east Norfolk, another area that was reached by the August 2007 air plume.

In the years after 2009, the Willow Emerald's range in Britain started to expand. This process was slow at first, but has become increasingly rapid since 2014 – or is it just that observers are now sufficiently confident to start looking well away from prior strongholds? The year 2010 saw the first records for southern Essex and for Kent, in the Reculver area, and by 2014 the species had reached Cambridgeshire, Hertfordshire and Surrey. Last year saw several more records from Cambridge, southwest London (e.g. Bushy Park) and Surrey (particularly around the Redhill/Reigate area). On 29 September 2015 an important new record was then made at Woods Mill in West Sussex, not too far from Brighton. This represents the most south-westerly record for Britain. A series of maps detailing how the species' range has expanded in recent years is presented here. It is interesting to note that East Sussex and southern Kent currently seem to be being avoided, though this is perhaps just coincidence.



© KITTENPALE.NL

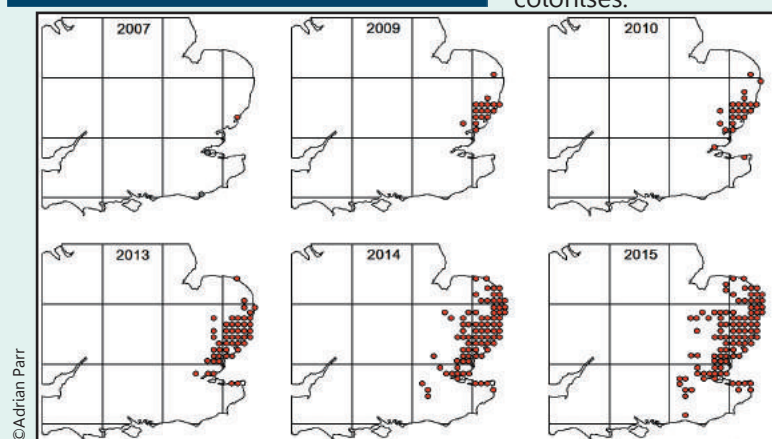
A male Willow Emerald Damselfly



© Val Perrin

A female Willow Emerald Damselfly

In the coming seasons further range expansion is anticipated, and observers are encouraged to be on the lookout for the species. Adults fly quite late in the year, typically during July–October, and are most frequently spotted resting on sunny branches of waterside trees such as Willow and Alder. They seem to particularly favour barer, leafless, areas which presumably receive maximum sun; individuals typically hang at an angle of 45 degrees with their wings spread. Their largish size (for a damselfly) and characteristic jizz mean they can be quite easy to spot from the right angle, though they are remarkably well camouflaged from others. While spending much time in the trees, individuals will also descend into tall rank vegetation, where it is possible to study their pale pterostigmata and 'spur'-shaped markings on the side of the thorax in close detail. Good hunting! I wonder what will be the next county that the species colonises.



© Adrian Parr

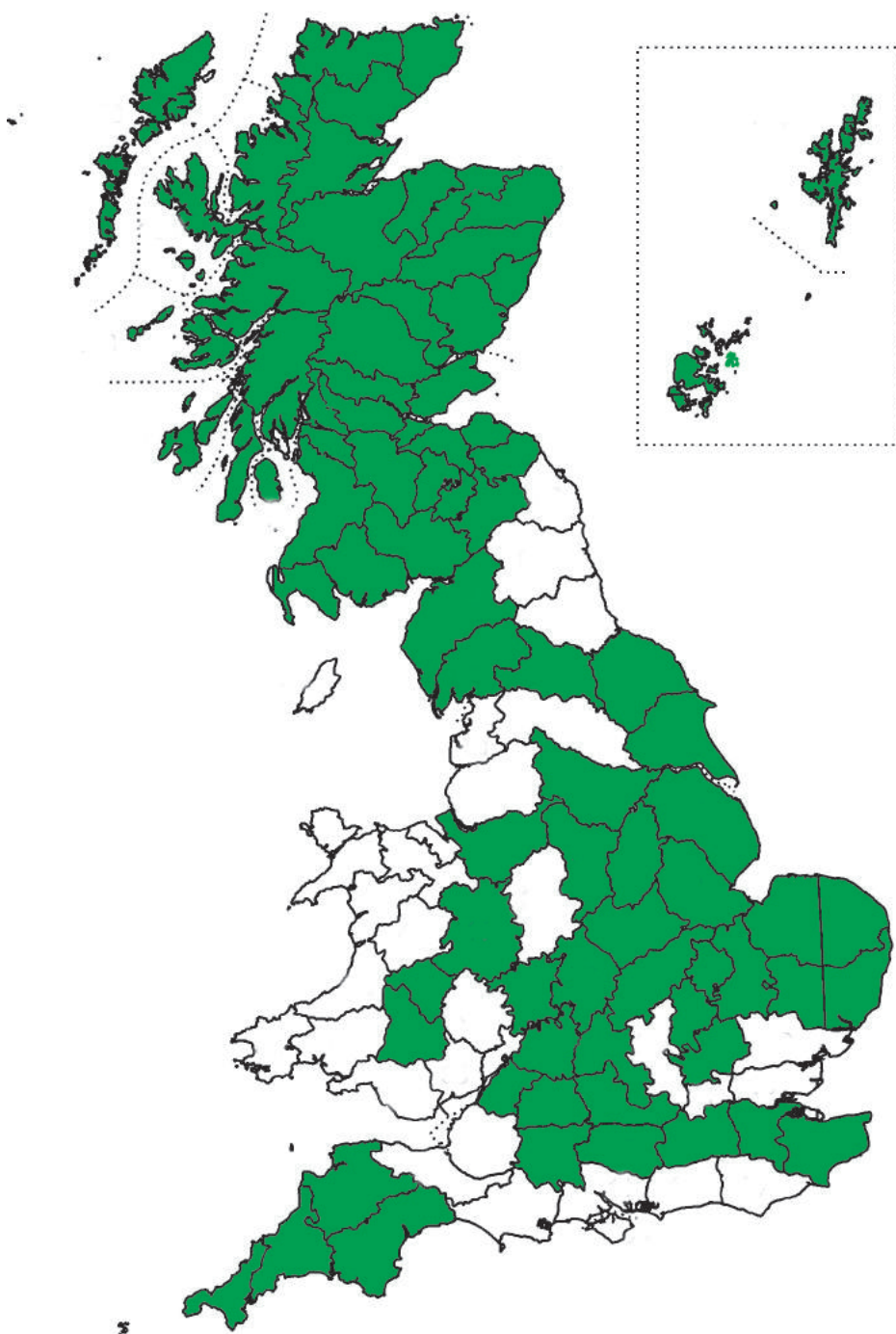
The Willow Emerald Damselfly has experienced dramatic population expansion in the UK between 2007-2015.



© Helen Haden

Woods Mill, West Sussex: a new location in 2015 for the Willow Emerald Damselfly.





Vice county map. Vice Counties for which 2015 accounts have been written are coloured in green.

Cornwall - VC1 & 2

Perry Smale

Welcome to my second yearly review as County Recorder. It's a pleasure to be able to report that it was a pretty interesting year for rare sightings, of which more in a moment.

Starting in early spring, however, **Large Red Damselfly** wasn't too tardy this year, being first seen on 5th April by Gary Barlow.

Golden-ringed Dragonfly had a really early appearance, sighted on 16th May by David Pearman at Goonhilly Downs on The Lizard. This is possibly the nation's earliest for 2015. What was prominent about this latter species this year was the length of its flight season. The last sighting for the year was a male on 1st November by the ever observant Christine Moore at Marazion Marsh (on which date it shared the site with a **Vagrant Emperor!**).

Now moving on to the rare visitors, and it's fantastic to bring news of another county first in the shape of a fine male **Southern Migrant Hawker**, found by Christine Moore at Marazion Marsh on 18th September. This individual remained until the following day, when it was seen by my wife and I, plus a friend and the finder (whose remarkable eyesight relocated it hanging up in a gorse bush a fair distance from where it had been seen the previous day). This record was quite a bolt from the blue, as I don't think anyone predicted the species turning up in Cornwall, and indeed is the first record for the south-western counties as a whole.

Coming as perhaps not such a surprise was our second record of **Scarce Chaser**, another male, which was only just in the county, being found on 10th June on the Bude Canal by Stuart Green. We may possibly in the future be treated to colonization by this species, but this may take a while to be confirmed, as the east of Cornwall is very under-recorded, and another record in the west of the county might be years away.

An absolute stunner was a male **Vagrant Emperor** found by Christine Moore on the hot afternoon of 1st November at the county's undoubted rare dragonfly hotspot of Marazion Marsh. This individual would appear to be part of a marked incursion of this species at roughly the same time, so maybe should have been half expected given the very unseasonal conditions (people were dressed as if it were August!).

Records of **Lesser Emperor** are to be expected these days and this summer provided a few records. Christine Moore saw a male on 18th June at Godolphin Woods and, in September, the same observer found two males at Windmill Farm CWT reserve on The Lizard on 6th with one still there on 7th.

A male **Keeled Skimmer** on 31st July at Marazion Marsh (Christine Moore) was fairly unusual, and was the first the observer had seen there.





This male **Southern Migrant Hawker** was spotted on Marazion Marsh by Christine Moore on 18th September, 2015, a first for the western counties.

So that was the summer of 2015 - a selection of some choice sightings of rare species (although no reports of breeding by any of them this year). **Red-veined Darters** appear to be holding their own at Windmill Farm CWT reserve as per previous years.

I would like to thank all observers who have sent in their 2015 records and wish everyone Happy New Year and a good dragonfly season for 2016.

Devon - VC 3 & 4

Dave Smallshire

Monitoring of **Southern Damselfly** in East Devon gave the best peak count at Aylesbeare Common (198) since 2001. The peak in the re-established colony at Venn Ottery Common was 98, the same as in 2013. However, the numbers at Colaton Raleigh Common reached a mere 36, only slightly better than in the previous four years and well below most years before that; on-going habitat management work is expected to improve conditions there. Southern Damselfly was last seen on Hense Moor Common on the Blackdown Hills in 1965; it probably went extinct because of scrub encroachment and/or lack of grazing. Management over the last eight years has brought the site back to suitable condition

for a Southern Damselfly re-establishment. Under licence, 460 were transferred from the New Forest in June by Dave Thompson (Liverpool University), who undertook the translocation to Venn Ottery in 2009. Monitoring of the Dartmoor Southern Damselfly sites yielded a record count of 302 at the (private) Tor View Moor site on 23 June, when there were also 195 at Moortown Bottom and 267 at Prewley Moor.

Reasonable numbers of **Small Red Damselfly** were at Smallhanger on 2 August, but the only other records came from Bystock. The only records of **Scarce Blue-tailed Damselfly** came from Prewley

Moor on 12 June and Smallhanger (four on 2 August). Access to the latter site has become more difficult with the opening of the new tungsten mine. Ray Jones counted 71 **Red-eyed Damselflies** along the Grand Western Canal on 21 May. Although there were no records from Stover this year, five, including a mating pair, were seen at nearby Ventiford Pools on 18 June. Up to 40, together with about 20 **Small Red-eyed**, were seen on Exeter Canal in July-August. At the county's original location for the latter, Lower Bruckland Ponds, Lorrain Ellison saw over 70 on 31 July. The only reports of **White-legged Damselfly** came from Countess Wear, along Exeter Canal and the River Exe.

Only three records of **Hairy Dragonfly** (Grand Western Canal, Dawlish Warren and Exminster Marshes) were received, and only one **Downy Emerald** (Little Bradley Ponds); was it really such a bad year for them? Two teneral male **Scarce Chasers** were at Exminster Marshes on 20 May, followed by one in Ludwell Valley Park, Exeter, on 6 June. Next day the BDS meeting to the Grand Western Canal found six, including one emerging, while Ray Jones counted 12 there on 26 June. After records from Lower Bruckland Ponds in late May-June, a teneral Scarce Chaser was photographed by Robin Procter on 1 September, the latest ever British record and perhaps mirroring recent records of late immature **Broad-bodied** and **Four-spotted Chasers** in



This **Scarce Chaser** was recorded by Robin Procter on the 1st September 2015 in Devon, the latest record of its kind in Britain.



Britain (e.g. there was a fresh male Broad-bodied at Chudleigh Knighton Heath on 28 August).

A flurry of **Red-veined Darters** in June included males on Lundy on 6th, Middle Soar on 8th and Soar Warren on 15th, while a female was at East Soar on 19th; one was at Dawlish Warren on 21st. Inland, a male was at Meeth Quarry on 14th and 29th; it materialised that a tandem pair were photographed egg-laying there on 12 June 2014, so the species may have bred successfully. A female was at Andrews Wood on 30 June. Finally, a female was photographed unusually high up (330m) on Dartmoor at Buckland Common on 25 September.

An unconfirmed record of a **Common Darter** at Dawlish Warren on 26 December would be the latest ever dragonfly record for Devon (excepting winter **Vagrant Emperor** records). It was, however, an excellent year for Vagrant Emperor, with a male on Lundy on 13 October, when a female was found in an airing cupboard at Roborough, near Torrington. Presumably brought in with washing the previous day, the latter begs comparison with one found hanging on washing in a garden in Plymouth on 15 April 2011. Subsequently, one was found by Paul Fenn at Coypool, Plymouth, on 5 November. However, the most astonishing record of the year was a **Wandering Glider** seen in flight only by Andy Swash and Denzil Morgan near Otterton on 12 May; there have been only three previous British records.

Can I end with a plea for recorders to submit records directly to iRecord (<http://www.brc.ac.uk/irecord/>) if possible.

Wiltshire - VC 7 & 8

Steve Covey

The dragonfly flight period this year started on 11th April with Damian Pinguey taking the honours. He found a female **Large Red Damselfly** at the usual pond in Chippenham which regularly produces the first sighting of the year!



© Mary Keim

A Wandering Glider, a species only recorded three times in Britain, was seen in Devon in May 2015.

From then onwards species appeared in their usual progression but, with the launch of the new 'Wiltshire Dragonflies and Damselflies' Facebook group, many new recording locations were added with new recorders contributing both common and scarcer species records; a positive use of the power of social media! Stanton Park, on the edge of Swindon, having had a series of ponds created recently, produced many spring records of the likes of **Broad-bodied** and **Four-spotted Chasers**. Sonia Hill and Roy McDine have sent in a series of sightings of a number of species from High Penn reserve [worked out sand pits near Calne] and Steve Birt discovered a new location at the Lower Moor complex in the Cotswold Water Park used as a maturation area for recently emerged **Downy Emeralds**.

As a bonus there were a couple of sightings of **Hairy Dragonflies** patrolling there too, reinforcing the impression that they are starting to consolidate their foothold in the CWP; I witnessed a mating pair and an ovipositing female at Swillbrook!

Phil Smith recorded **Scarce Chasers** yet again at the Caen Hill flight on the Kennett and Avon canal in Devizes – but still no proof of breeding unfortunately! Phil also recorded a **Golden-ringed Dragonfly** at Bowood – a new

location for this species.

Brown Hawker had a good year again with a spread of records across the county including the first knowingly recorded from Bentley Wood by Sue Walker et al. **Scarce Blue-tailed Damselfly** was much lower in numbers on Salisbury Plain this year according to Iain Perkins but 2 new active gravel pits in CWP [reported by Gareth Harris] helped to redress the balance a little.

Small Red-eyed Damselfly had a good year at Coate Water with numbers into 3 figures being seen and mating observed.

The mid-season blip in the weather may have been the reason behind the extended season for the late summer/autumn species culminating in an amazing sighting by Glen Maddison of a moribund male **Southern Hawker** on 9th December – the first ever December record for an Odonata in Wiltshire!!

My thanks for the many records sent in via Living Record, email and Facebook those from the several new recorders were particularly welcome. Also the regular reports from the two Pauls [Winter and Ritchie] keeping us informed as to the happenings in the far south of the county. Apologies to those I've not named individually but if you



wish to see the many wonderful images taken during the year then please visit the Facebook group at: <https://www.facebook.com/groups/441544116004916/>

North Hampshire – VC 12

Daivd Murdoch

I have just taken over as N Hampshire Recorder though I'm new to the area. It's an odd patch; according to the Atlas, VC12 is the 9th richest vice-county for dragonflies yet several 10km squares have almost no records. It's probably because these squares are dominated by chalk downland – not good habitat for dragonflies – and so they are rarely visited. And yet tank tracks slightly further west on Salisbury Plain have breeding **Scarce Blue-tailed Damselflies**; I doubt if anyone has looked for them in VC12. N Hants is drained by the clean, clear waters of the Test and Itchen, with their broad water meadows, which should be rich in dragonflies; but, even though many areas are inaccessible, expected species are missing. The most tantalising is **Southern Damselfly**; its national stronghold is in South Hampshire but there is not a single record from N Hants! Surely it is there somewhere. Another is **White-legged Damselfly**: there are almost no records from the catchment areas of the Test or the Itchen – are the rivers too cold or too alkaline? The north-east includes heaths and woods in the Thames basin, perhaps the richest area for odonates in Britain, which explains VC12's long list; I hope to have more records from here this coming summer.

In 2015, I spent time along the Dever, a poorly covered tributary of the Test, and found (all on chalk) small numbers of **Golden-ringed Dragonfly**, a colony of **Small Red-eyed Damselfly**, and to my surprise a single **Small Red Damselfly**. So if you live in the area and fancy some exploration, there is much more to find.

Kent – VC 15 & 16

John and Gill Brook

2015 was generally not a particularly good year in Kent as



©Gill Brook

This pair of **Dainty Damselflies**, was seen in Kent on the 9th July 2015.

far as numbers of dragonflies on the wing was concerned but was very rewarding in that we had some successful finds of exuviae. I think we were well behind many counties for first sightings, our first record being the **Large Red Damselfly** on 18 April.

The **Norfolk Hawker** is still doing well and was seen ovipositing again at Westbere and also at a second site which does have some Water Soldier (*Stratiotes aloides*). At both sites exuviae were found, so hopefully they will continue to breed and multiply.

The **Dainty Damselfly** is still present but in small numbers and was only seen on ponds at two sites. During visits in June no adults were seen, but seven exuviae were found. On further visits in

July a total of about 20+ adults were seen, some of which were in tandem and ovipositing, and one more exuviae was found. We are still hoping to find a site where anyone will be able to observe this rare damselfly.

While Gill was busy photographing the **Willow Emerald** ovipositing into the branches of a young ash tree beside North Stream near Little Grays, John was successful in finding some exuviae, our first of this species since the one collected at Cliffe in 1992.

Our highlights of the year were the finding of 13 exuviae of the **Southern Migrant Hawker** and about 8 exuviae of the **Southern Emerald Damselfly**. The female exuviae of the Southern Emerald are reasonably easy to distinguish from the other Emerald damselflies, but the males can very easily be confused with the males of the **Scarce Emerald Damselfly**. With guidance from Steve Butler we learnt that the small difference between the males is on the labial palps of the labium, so a microscope is a must for identification.

Surrey – VC 17

Catherine Burton

2015 was an exciting year for Odonata in Surrey mainly due to the continued success of our new resident, the **Willow Emerald**. Numerous sightings of this beautiful damselfly began in early



©Gill Brook

This **Norfolk Hawker** was observed egg-laying in a dyke at Westbere, Kent, last year.

September. Not only were they spotted in their original haunt at Nutfield Marsh, East Surrey they also began to appear in various sites around Redhill and Reigate and even further north in to Wimbledon Common. Many of Surrey's dedicated recorders ventured out to take a look and reported large numbers, even managing to capture some mating behaviour on camera.

A number of successful field meetings were held throughout the year such as at Thursley and Elstead Common, as part of the National Dragonfly Week in July, and Wisley Common in August. Thanks must go to Surrey Wildlife Trust for hosting a meeting on their Barossa reserve and to Matt Guilliatt and Francis Kelly for leading the day. Francis also reports another highlight for the year which was an immature male **Scarce Chaser** in Ewhurst. We received a sighting of this species in Ewhurst back in 2013, some distance from where we would usually expect it on the River Wey. Therefore, we are delighted to see that the species has remained in the area.

Despite the rather disappointing weather this summer our dedicated recorders persevered and submitted hundreds of records to us in 2015. I would like to thank all of Surrey's recorders, the Hampshire, Surrey and Berkshire Dragonfly Group and Wealden Dragonfly Group for their fantastic efforts and wish them all the best in their dragon spotting for 2016.



Willow Emerald Damselflies
egg-laying in Surrey.



© Graham Cantley

This male **Scarce Chaser** was photographed at Amwell, Hertfordshire.
Could this be a new breeding species in the county?

Hertfordshire – VC 20

Roy Woodward

It was an exciting year for dragonfly recording in Hertfordshire.

The season started relatively early with **Large Red Damselflies** on the wing from April 16th and, although no other species were reported before May 4th, eight more species (**Azure, Blue-tailed, Common Blue & Red-eyed Damselflies, Banded Demoiselle, Four-spotted & Broad-bodied Chasers** and **Hairy Dragonfly**) were flying by May 12th.

June was when things really started to get interesting, with an immature female **Scarce Chaser** photographed at Amwell nature reserve on June 5th. Unfortunately it was seen by just two observers, and despite searching could not be found in the following days. This was thought to be the first county record, but it has since come to light that the species was apparently photographed at another site in the county in 2011, although the details have not yet been confirmed. Two days later a male **Red-veined Darter**, still a rarely recorded species in the county, was found at Tyttenhanger gravel pits with one seen there irregularly until June 18th.

On June 25th the Herts & Middlesex Wildlife Trust were sent photos of two dragonflies that had been photographed at Amwell that day with a request for identification. One of these turned out to be a

mature male **Scarce Chaser** and the second was a male **Norfolk/Green-eyed Hawker**! Up to three Norfolk Hawkers were seen in the same part of the reserve over the next two weeks, including a tandem pair on June 26th, with the last sighting on July 9th. This was another new species for the county. No breeding indications of any kind were seen from Scarce Chasers, but there were further sightings of single males and a mature female, so both of these species will be eagerly looked out for in future years in the hope that they did manage to breed successfully in the county.

A male **Lesser Emperor** was at Hilfield Park Reservoir on June 29th, a site that has produced almost annual records of this species in recent years. An ovipositing pair was present at the same site on July 9th.

The final major discovery of the year came in the first week of July, with the finding of an ovipositing pair of **Scarce Emerald Damselflies** at Hertford Heath on July 4th – the first records in the county since 1958. Searches of other parts of Hertford Heath, near to where the original two were seen, resulted in perhaps as many as 20 being located, including several ovipositing pairs, among hundreds of **Emerald Damselflies**. A few Emerald Damselfly exuviae were collected on July 5th, and one of these provided confirmation that **Scarce Emerald Damselflies** had bred successfully at the site, and



had therefore been present since at least summer 2014.

In other news, **White-legged Damselflies** were confirmed to still have a strong population along parts of the Grand Union Canal, in the west of the county and **Willow Emerald Damselflies** were found again at both of the sites where they had been found in 2014, as well as being found on the Hertfordshire/Essex border along the River Stort.

In total, 25 species of Odonata were recorded in Hertfordshire during 2015, with the last sightings being Migrant Hawkers on several dates in November.

Berkshire – VC 22

Mike Turton

The first record of the year was a possible **Vagrant Emperor** reported on 15th April in the centre of Bracknell. The record coincided with a period of southerly winds which also brought in dust from the Sahara.

Apart from this, the season kicked off as normal with a record of **Large Red Damselfly** on 15th April followed by a **Broad-bodied Chaser** on 22nd April (earliest record for the county). At the other end of the season there were very late records for **Southern Hawker** on 17th and 27th November, reflecting similar late records elsewhere in the country. In between it was a quiet year, with a sharp downturn in the number of records submitted.

Downy Emerald had a mixed year with good numbers at both Swinley Brick Pits (15) and Paices Wood (10) – best figures for both sites in the last 4 years; however counts remained low at other sites.

Common Club-tail is showing an apparent alarming decline on the R. Thames with very low numbers recorded and verbal reports from several observers of not having seen any during the year. A total of 2 exuvia and 8 teneral were recorded from a stretch upstream of Pangbourne and there were 4 records of single adults/exuvia



This **Common Club-tail** was caught in the act of emergence at Goring Railway bridge, Oxfordshire on 23rd May, 2015 by VCR, Stephen Burch.

from the normal hotspot at Goring viaduct. Is this a result of the floods in recent years or are they just under-recorded? More records are needed in 2016 to try and get a clearer picture.

Finally, a new site was found for **Variable Damselfly** at Barton Fields (Abingdon) where up to 9 were recorded. The species was also recorded in the usual area around Southcote on the R. Kennet, but no records came from Cookham Common, probably because no visits were made this year.

Oxfordshire – VC 23

Stephen Burch

In VC23, the 2015 weather was mixed which resulted in an

unexceptional year for Odonata, with comparatively low numbers. The season however got off to a promising start with the first records being of **Large Red Damselfly** and **Azure Damselfly** on 27th April from the RSPB's Otmoor reserve north of Oxford. **Hairy Dragonfly** is the speciality of this site, and again a good number of records were received from here, with the highest count being six. Despite this species' spread into nearby sites in VC22, none were seen away from Otmoor in VC23 this year. Otmoor also produced the only VC23 **Downy Emerald** sighting.

Perhaps due to the poor mid-season weather, there were unfortunately no further records

of **Scarce Chaser** from Otmoor, following last year's first confirmed county record. It was however good to see three records of **Common Club-tails** from the VC23 bank of the River Thames at the traditional site of Goring Railway Bridge, including one caught in the act of emergence. There were also good numbers of **White-legged Damselflies** reported from the Thames at Goring and Chimney Meadows. A new site for this species was also found to the north of the county in the Cherwell Valley near Banbury.

The very mild autumn led to an extended season with several late records of **Migrant Hawker** and **Common Darter**, with the last being of a Migrant Hawker from Port Meadow on about 19th November.

In all, about 150 records of 20 species were received this year for VC 23, compared with about 180 records of 21 species in 2014. Further details can be found online at <http://www.stephenburch.com/dragonflies/OxonDragons.htm>

Suffolk - VC25 & 26

Adrian Parr

The 2015 dragonfly season was in general a relatively unspectacular one in Suffolk, it being a sign of just how well the new colonist **Willow Emerald Damselfly** is doing in the county that reports are now taken somewhat for granted! A new area record for the species from Lakenheath Fen during mid September is, however, of some note. Recording effort was also perhaps a little down, the year following on from a period of intensive fieldwork leading up to the publication of a new local county dragonfly Atlas (this is due on sale in spring 2016).

Two highlights for the year stand out. The big national influxes of **Red-veined Darter** seen during spring/early summer managed to reach Suffolk, with sightings on the coast at Landguard Bird Observatory on 6 June, 4 July and 11 August (N. Odin). There was also an inland record at Lackford Lakes SWT reserve on 7 June (J.

Robinson). All reports referred just to singletons, and unlike in some other areas of southern England, no attempted breeding was thus reported. The other highlight of the year was the sighting of a male **Southern Migrant Hawker** at East Lane, Bawdsey, on 29 August (B. Buffery). This was one of four individuals seen during 2015 away from the species' breeding strongholds in the greater Thames Estuary area, these all presumably being fresh immigrants. Searches on subsequent days failed to re-find the Bawdsey individual, so presumably it moved on.

The other main feature of note during the year was the good selection of early and late sightings that were reported, reflected the remarkably mild weather during periods both in spring and in late autumn/early winter. Sightings of dragonflies at Minsmere and Stonham Aspal during mid April were thus the earliest dragonfly records in the UK during the year, though it is unclear whether they referred to resident **Hairy Dragonflies** or to immigrant **Vagrant Emperors** (the latter perhaps being more likely). At the other end of the season, several sightings were also made that were unusually late for East Anglia. These included a **Ruddy Darter** seen on 17 October and a **Southern Hawker** seen on 11 November, the latter being the

(equal) latest-ever record for Suffolk.

Norfolk - VC 27 and 28

Pam Taylor

Norfolk seems to have had a reasonably good dragonfly season in 2015, with a fair scattering of migrants thrown in to liven things up. Spring started well with several reports of **Large Red Damselfly** during the second half of April. These were soon joined by all the regular spring species and then the first **Norfolk Hawker** on 23rd May. The latter was seen in good numbers at all its usual broadland haunts and wanderers turned up at both Sprowston in Norwich and at Pensthorpe in west Norfolk.

The first migrant turned up at the end of June when a **Lesser Emperor** was reported from Felbrigg lake. A few days later at least three of the same were seen at Filby Broad with a pair ovipositing in almost exactly the same spot as last year. The same or other Lesser Emperors were then seen at the nearby Ormesby Broad until at least 11th July. **Red-veined Darters** also appeared during July with over thirty seen at Felbrigg lake including ovipositing pairs. It is assumed that the emergers seen in September came from this breeding attempt.

Elsewhere both male and female **Yellow-winged Darters** were seen



Minsmere, Suffolk, location of the earliest sightings in the UK in 2015, during mid April.

©Michael Day





©Frédéric Barszezak

A female **Yellow-winged Darter**. A male and female of the species were seen at Winterton Dunes, Norfolk in 2015.

on separate days at Winterton Dunes on the east coast, where a wandering **Keeled Skimmer** also turned up in July. A further wandering Keeled Skimmer was seen at Upton Fen on 18th July, the same day that I found a female **Scarce Emerald Damselfly** there. One final migrant that must be mentioned is the single example of **Southern Emerald Damselfly** seen at Winterton Dunes on 1st August. Is this further evidence of a colony there?

Finally a species that is now quite widespread in Norfolk. **Willow Emerald Damselfly** had another successful season with breeding behaviour reported from several localities including Alderfen, Mallingford Mill, Sutton Fen and Thorpe Marshes.

Cambridgeshire and Huntingdonshire – VC 29 & 31

Val Perrin

Following a reasonably promising start to the 2015 season in most parts of the country in April the weather in early May then turned very windy, cool and showery, coinciding with what should be the main spring dragonfly emergence. Events were slow therefore to get under way locally. My first notes of damselfly species observed while walking a farmland butterfly transect on 28th May included a few **Azure** and **Large Red Damselflies**. At Fen Drayton lakes RSPB, a wonderful complex of old flooded gravel pits and the

adjacent River Ouse, a few **Banded Demoiselles**, **Azure damselflies** and **Blue-tailed Damselflies** were on the wing, but in nothing like the numbers in an average year. Just over a week later I was however, pleased to see a female **Broad-bodied Chaser** ovipositing into the margins of my new enlarged garden pond, while **Large Red** and **Azure damselflies**, some in tandem, formed an accompanying cast. Later in the summer a female **Emperor Dragonfly** was likewise egg-laying for extended periods in sunny weather.

Numbers of adult **Norfolk Hawkers** at the fishing pit site at Little Paxton were down in 2015, possibly due to the lack of good warm, sunny days, although I and

others could see many **Aeshna**-type exuviae clinging to the dense mat of **Water Soldier** plants there. Some of these were identified as of this species. Reasonable numbers of **Variable**, **Common Blue**, **Azure**, **Blue-tailed** and **Large Red** damselflies were located in the hedgerows and meadow margins around the site, however, along with the odd **Hairy Dragonfly**, **Black-tailed Skimmer** and **Banded Demoiselle**. At West Brook, Fenstanton, four species of blue **Coenagrionid** damselfly were present as usual along the shaded dyke banks. I am trying to determine the relative abundance of these individual species between several neighbouring sites and seeing whether any discernible habitat differences can account for their distributions.

I was pleased to unexpectedly find 2 or 3 **White-legged Damselflies** (a scarce species in our county) in the corner of an arable field at Comberton in late July, a good 50m from the nearby Bourn Brook and the first time I have seen this species here.

And last year several more **Willow Emerald Damselflies** were observed in Cambridgeshire, following the first sighting at Roswell Pits, Ely in September 2014. New records of singletons came from two different sites in Cambridge, with another also seen earlier in a garden at Over.



©Val Perrin

A **Willow Emerald Damselfly** in Cambridgeshire. The species was recorded from several new locations in the county during 2015.



©Rory Morrisey



A Broad-bodied Chaser at Stanbridge Meadows NNR, Bedfordshire.

So it appears that the species is establishing a toehold here, as it is in other new county sites beyond its Suffolk strongholds.

Bedfordshire - VC30

Rory Morrisey

Bedfordshire recorded the usual 21 resident species this year, plus a couple of exciting visitors, but none of the hoped-for possible new residents. In common with most regions, we had some very late records, with our latest ever **Brown Hawker** being recorded in a garden at Bromham on 11 November 2015. Other "blue" hawkers were seen in November but, unfortunately could not be identified definitely to species.

The first visitor to turn up was a **Red-veined Darter** that stayed for only one day at Dunstable Sewage Treatment Works. The most recent record of this species in VC30 was in 2012 and was also of a singleton. The second visitor was a **Lesser Emperor** that was at Willington for several days from 9 – 16 August. It may well have been there longer, but was subject to aggressive behaviour from the resident **Emperor Dragonflies** that challenged it continually. This species had not been seen in the vice-county since 2007.

Total records were down slightly from previous years. Large numbers of flying odonata were seen on several occasions and hundreds of brown hawker exuviae

were found on a rainy 28 June at Felmersham. Fewer sightings were made of **Common Darter** and **Migrant Hawker** than in previous years. This may have been a consequence of the poor autumn weather, and possibly partly to do with observers' reluctance to go out searching for them in the cold and rain.

Northamptonshire – VC 32

Mark Tyrrell

I started 2015 with great expectations for capturing many in flight shots with my new camera and lens (see my review on the new Canon 100-400mm in Dragonfly News 68), however things didn't quite pan out as I intended. While the season started as normal with the first few species emerging on schedule, poor weather in May and June, right during the main emergence season of my target in flight species – the **Downy Emerald** – had a major impact on numbers.

My planned field trip to Yardley Chase on 13 June was a wash out weather wise, with light drizzle all day, although actually very enjoyable for those who braved the conditions. It was amazing to find **Four-spotted Chasers** emerging in the rain, which clearly shows how hardy they can be. None of our target species (Downy Emerald) were seen but we did find an exuvia. As the season progressed, numbers of Downys seen were lower than usual and in

flight shots even more scarce. Still, I was pleased to capture this mating pair uncharacteristically close to the water. Work over the winter at Irthlingborough Lakes opened up a ditch and made it a great place to observe a good number of species and gave excellent views on mating and ovipositing **Small Red-eyed Damselflies**, which you usually have to wade out to see. I met several people there who had read my blog report and went to see for themselves. A major sighting on the River Nene at Irthlingborough was the presence of **Scarce Chaser**, and this site now becomes the furthest downstream on the Nene to support this species. A previous favourite pond, Finedon Pocket Park, has undergone major work by Froglife and looks set to be even better than it was before it was destroyed by successive years of floods and drought. I will continue to record here and support Froglife to ensure the pond improves further still. There were no other notable events to report.

Gloucestershire – VC 33 & 34

Ingrid Twissell

The season started with two sightings of **Large Red Damselfly** on 15th April in two locations, at Hartpury Orchard Centre and at



©Mark Tyrrell

A mating pair of Downy Emerald in Northamptonshire.



Redmarley Woods, and ended with a sighting of a "Large Blue" dragonfly on 11th November, at Clanna ponds – the recorder presumed it was a **Southern Hawker**, but the latest definite sighting of this species was on 4th November in the woods near Woorgreens pondscape. In between these two dates, there have been significant records from various locations.

A new recorder to Gloucestershire, Mark Hallett, sent in records from new locations, including new 10km squares, in both VC33 and VC34. These included **Small Red-eyed Damselfly**, from Westbury Court Gardens, Sharpness Canal, Highnam Court Gardens, and Western Approaches in South Gloucestershire. There were further records from Soudley Ponds and Woorgreens pondscape, both in the Forest of Dean, and Horsbere Flood alleviation site, near Barnwood (now Reserve). MH also recorded both **Red-eyed Damselfly**, a new 10km square record, and **White-legged Damselfly** from the Sharpness Canal.

Scarce Blue-tailed Damselfly was present at two locations in June, two males at Woorgreens pondscape, in the Forest of Dean, and 12 at a lake in the Cotswold Water Park.

Common Blue Damselfly: four males were seen at Apperley Fishing Lake, near the River Severn, on a very late date, 26th September.

Hairy Dragonfly continues to spread at WWT Slimbridge, its stronghold in the county, and on 30th May, one female was seen at Coombe Hill Canal where only males have been recorded in recent years.

Scarce Chaser is still breeding at The Mythe, near Tewkesbury; eight were present in May.

Common Clubtail was only recorded once this year. A male and a newly-emerged female were seen at The Mythe, near Tewkesbury, in May.



Downy Emerald was present in six locations in the Forest of Dean.

Golden-ringed Dragonfly: although widespread in the Forest of Dean, it was present at a new location, Foxes Bridge, and at St. Briavels where it was last seen in 1995.

Black Darter was recorded from Woorgreens pondscape as well as a first sighting of **Brown Hawker**, both in August. This excellent site now has a total of 22 species recorded since the area was clear-felled as part of a heathland restoration project and a series of ponds dug a few years ago.

Also worth mentioning was that a student project was carried out throughout the year at Hartpury Orchard Centre, north of Gloucester, with many visits undertaken from mid-April to the end of August, unfortunately with no additions to the list of 17 species for the site.

Finally, I would like to mention that the "Dragonflies and Damselflies of Gloucestershire" is due to be published in April 2016, and will be available from the BDS shop.

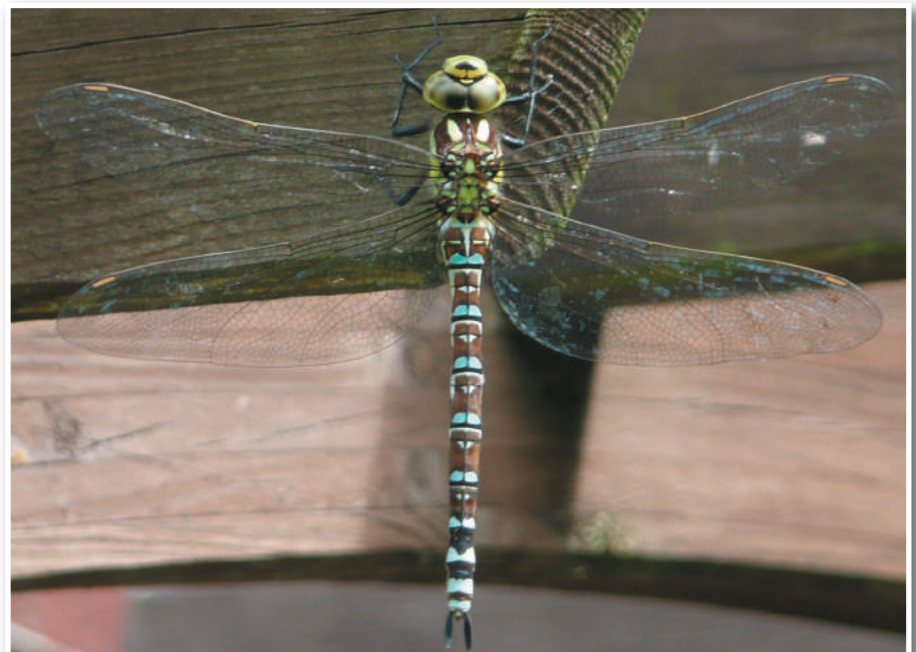
Worcestershire – VC 37

Mike Averill

Experience shows that the number

of adult dragonflies sighted is closely related to the weather at the time of the observation and this was reflected in the up and down counts made through a variable summer. The weather in the run in to spring was generally mild with good sunshine amounts and so emergence of the spring species were by and large on time. However as the year progressed dull months from May to August meant that the dragonfly year seemed to end rather early and although September was a very sunny month it was all a bit late for most species. The only species which emerged earlier than usual was the **Small Red-eyed Damselfly** which had a very good year. Other than weather the other factor which particularly affects sightings is the local water level condition, and as predicted last year after three years of rainfall surplus and good conditions, a return to average rainfall in Jan and March but below average rainfall in Feb and April meant pool levels dropped quickly and began to dry completely in some cases.

Overall 22 out of a possible total of 28 species recorded, were seen but there was an exciting new addition taking the Worcestershire total to 29, when the **Downy Emerald** was seen in Grafton Wood. Wherever the Grafton Wood individual came from, it was found patrolling



©John Lane

A blue colour form female **Southern Hawker** in a garden in Malvern, Worcestershire.



The **Brown Hawker** was a month late in Warwickshire in 2015.

woodland pools which it is said to favour, so let's hope we see some more in the future. The **Club-tailed Dragonfly** had a poor year and was hard to find along the Avon and even in its core area at Bewdley the counts were the lowest for 8 years.

Nearly all other species showed declines on last year except for The Small red-eyed Damselfly, **Red-eyed Damselfly**, **Ruddy Darter** and **Large Red Damselfly** - is there a colour pattern here?

Mention has been made before about the blue coloured **Southern Hawkers** that are occasionally encountered and there have been a number of reports of these from John Lane in Malvern who seems to have a garden which is especially attractive to these individuals. He reports a number of males and females arriving to sit on a sunny wall, many showing the blue colours along the whole abdomen instead of just the usual end segments of the males (see photos). It is not sure whether these are still going through a maturing phase or whether they can be considered as a separate colour form, so perhaps the only way to be sure will be to take a leg and do some DNA analysis.

Warwickshire – VC 38

Kay and Peter Reeve

Emerging dragonflies had a slow start in the county in 2015 and their individual numbers were down. No species was early and some spring species were two or more weeks behind their earliest date in the county. **Southern Hawker** was first seen on 14th June compared with the earliest ever date ever

of 10th May. **Brown Hawker** was also a month late at 19th June. For most species that set the trend for the year. All county breeding species appeared in the end with the exception of **Club-tailed Dragonfly**. The status of the Club-tail on the Avon, not just in VC 38 but in Worcestershire too, appears very precarious. It is not clear what is happening to it. Our small and growing population of **Scarce Chaser** on the Avon near Bidford is doing well on its two year cycle (2015 is an "off" year). Further, in the highlight of the year, a new immigration of the species arrived on the Avon at Charlecote Park. This is some 12 miles upstream of the Bidford population. The first individual was photographed by Mick Schilling on 5th July and on subsequent visits to the site more were seen with a maximum of three individuals on one visit. All those seen were males holding territory.

The number of records received in 2015 was down on the 2014 record of 1623 by about 200. But given the weather conditions of the year, which deterred both dragonflies and recorders, it is a good total.

Shropshire – VC 40

Sue McLamb

The 2015 flight season took a while to really get going, but thanks to over 60 recorders keeping an eye out for signs of activity we finally gathered well over 800 records including the latest ever sightings of 5 of our local species. This included the latest ever record of a resident Shropshire species, **Common Darter** seen by S. Barlow at Brown Moss on 20th November. Other significant latecomers were **Emerald Damselfly** (2nd Oct), **Blue-tailed Damselfly** (2nd Oct), **Common Hawker** (20th Oct) and **Migrant Hawker** (12th Nov).

A total of 27 species were recorded in 2015 comprising 16 dragonfly and 11 damselfly species. No rare migrants put in an appearance this year and surprisingly there was still no sign of the **Small Red-eyed Damselfly** crossing our borders. Records indicated a good year for **White-legged Damselfly** seen at

a number of sites unusually out numbering the more common **Banded Demoiselle**. **Black-tailed Skimmer** also had far more recorded sightings than normal and increased its Shropshire distribution appearing in 3 new county hectads. The greatest increase in species richness was seen in the far north east of the county with 9 new species records near Woore. This was due to a big increase in recording in this area - thank you!

The Shropshire Dragonfly Watch blog was again a success allowing many people to enjoy some spectacular photos whilst being kept up to date with how the season was shaping up. The blog will definitely be up and running again once dragonflies are on the wing.: <http://shropshire-dragonfly-watch.blogspot.co.uk>. In addition I'm hoping to finally launch the Shropshire Dragonflies website this spring. We hope this will serve as a tool keeping people very much up to date with local dragonfly news whilst providing identification and distribution information on Shropshire species - all details and a link will appear on the Local Groups Shropshire page of the BDS website.

Breconshire - VC 42

Keith Noble

The season here started with a **Large Red Damselfly** on 27 April. At Llangorse Lake there were hundreds of **Variable** and **Common Blue Damselflies** on some days between mid-May and mid-June, followed by up to four



A **Variable Damselfly** at Llangorse Lake, Breconshire, on the 13th May, 2015.





©Keith Noble

A female **Southern Hawker**, ovipositing at a garden pond, Brecon, Breconshire.

Hairy Dragonflies, consolidating last year's surprise reappearance. Also in late June good numbers of **Four-spotted Chasers** and **Scarce Blue-tailed Damselflies** appeared at Mynydd Illtyd when Iolo Williams and crew filmed dragonflies for a Brecon Beacons series shown on BBC 1 Wales in January 2016, and scheduled for national broadcast in the autumn. In the same week 50 Four-spotted Chasers were recorded at Pant y Llyn, and on 15 July 50 **Keeled Skimmers** including ten pairs were in Marchnant Quarry. A couple of **Black-tailed Skimmers** sat on their usual rocks beside Llangorse Lake in early July, and five including one ovipositing were at Pant y Llyn on 2 August. On 6th a Dragonfly Training Day started in the office of the Biodiversity Information Service before going out to Mynydd Illtyd where we watched eleven species and found exuviae of four. Single **Brown Hawkers** were noted at Penlan Ponds on 7 September, and at Llangorse Lake on 12th with 36 **Migrant Hawkers**. Hawkers and darters lingered into early October, with last sightings of **Common Hawker** and **Black Darter** at Llanwrthwl on 20th. The numbers of records, 182, and recorders, 14, were low this year.

Radnorshire – VC 43

Bob Dennison

The 2015 Radnorshire dragonfly recording effort resulted in 528



records from 25 contributors. As usual, the biggest contributors were dragonfly veterans, Dick Eastwood and Ian Standen, amassing two thirds of VC43 records between them. The flight season began on 20th April with **Large Red Damselfly** emergences and finished on 2nd November with an ovipositing **Southern Hawker**. The meteorologically-mixed season featured all of Radnorshire's 23 regularly recorded species - 14 dragonfly and 9 damselfly species. No new Vice County species were recorded.

Following concerns expressed

in two previous seasons' reports regarding an unexplained drop-off in sightings of our four 'river specialists', it was a partial relief that recorders were finding healthier numbers – along with improved breeding evidence - of **Banded** and **Beautiful Demoiselles** and **White-legged Damselflies**. **Common Clubtail** sightings, on the other hand, were limited to a single exuvia.

It is difficult to understand these apparent changes in fortunes of Radnorshire's river species. Numbers of records may be a function of river flows or pollution levels, temperature or weather patterns or simply a reflection of the amount of recorder effort.

Two early-summer species whose flight periods seemed to have been affected by last year's weather patterns were **Broad-bodied Chaser** and **Emperor Dragonfly**. Historically, Radnorshire records of both species on the wing have invariably ceased by mid-August. In 2015 however, Broad-bodied chaser sightings - including that of an ovipositing pruinescent female - were seen in early September. **Emperor Dragonfly** sightings were similarly being recorded well into September. Consultation with Adrian Parr confirmed these late sightings of Emperor Dragonfly to be consistent with changes



©Dick Eastwood

An exuviae identity parade. Exuviae are vital proof of breeding, for example at Llanbwchlllyn, Radnorshire, in 2015.

observed elsewhere in the UK.

Highlights of the season included the first proof of VC43 breeding for **Migrant Hawker** at Llanbwchllyn Lake and the discovery of a healthy population of **Scarce Blue-tailed Damselflies** at an upland site on the Begwns in the south of the Vice County.

Lincolnshire – VC 53 & 54

Nick Tribe

For the second year running **Lesser Emperor** dragonflies were recorded in Lincolnshire. Steve Routledge saw a male at Messingham Sand Quarry SSSI SE90 on 25th July and Chris and Sue Bottomer had another male at Woola Bank Reedbed TF57 one month later on 25th August. Male **Red-veined Darters** were seen on 16th June at Ingoldmells TF56 by Ed and Monica Mackrill and by Nick Tribe at Gibraltar Point NNR TF55 on 11th July. A **Black Darter** was seen inland at Little Ivy Wood SSSI TF17 by John Flynn on 17th October. Mass migration was observed by Grahame Hopwood who reported 500 **Migrant Hawkers** in the Chambers Farm Wood complex TF17 on 25th August.

Among the more sedentary residents **White-legged Damselfly** was observed ovipositing in the River Welland at Stamford TF00 on 18th July (Nick Tribe). The Lincolnshire Naturalists' Union field visit to Branston Fen TF07 recorded 200 **Emerald Damselflies** along a ditch in peat fen among the eight species recorded on 8th August. Presumably the ditch conditions were not suitable for many other species.

Lincolnshire's dragonflies provided plentiful food for other migrants; red footed falcons feasted on *Sympetrum*-species at Willow Tree Fen TF12 for several weeks from August 12th (a male) and on **Migrant Hawkers** at Gibraltar Point NNR from September 26th for at least four days (a juvenile). What was thought to be the former bird was later found dead (shot) in Cambridgeshire (RSPB



©David Marquina Reyes

A male **Red-veined Darter**. This species was recorded in two locations in Lincolnshire in 2015.

press release).

Leicestershire & Rutland – VC 55

Ian Merrill

Things could only be mundane after such an astonishing 2014 and so it was to be, at least in terms of exciting Odonata discoveries Leicestershire and Rutland in 2015. There were no further records of either **Scarce Chaser** or **Beautiful Demoiselle** along the southern border of the Counties (or anywhere else for that matter), and the only noteworthy events were the recording of further expansions of the known range of **Hairy Dragonfly** and a single **Variable Damselfly** sighting at a new location in the east of VC 55.

From a 'square-bashing' perspective, I was very pleased to find a tiny pond in our final unrecorded 10km (partial) grid square, which permitted me to award the **Blue-tailed Damselfly** with the prestigious title of the only Odonata species to have been recorded in every one of the 41 number 10km squares which make up VC 55!

From a personal perspective I was delighted to publish 'The Status and Distribution of the Dragonflies of Leicestershire and Rutland' in March 2015. Available via the link above, or from the link on the Naturespot website, as the name suggests this document gives an updated account of the status of

all 29 Odonata species reliably recorded in the Counties, up to the time of writing. I would encourage all budding VC 55 recorders to download a copy and use it to inspire and focus their recording efforts in 2016!

Nottinghamshire - VC56

David Goddard

Records have been received for seventeen species which cover the typical range of species to be found within the county.

I had the pleasure of conducting a training course for the rangers and volunteers on the identification of dragonflies and damselflies found in the east midlands area, followed by how to undertake a transect survey. Following the indoor training we took a trip out into Clumber Park NNR to put into practise what had been learnt in the classroom. The training obviously paid off as I have been receiving weekly records from the surveys undertaken since the training course.

It was also pleasing to note that **Hairy Dragonflies** are not only moving along the River Trent in the south of the county but that as far as I am aware a new site in the north has been report, namely Parish Park, Lound.

I am as always indebted to all those people and organisations that have submitted records.



©Dennis Swaby



This egg-laying pair of **Small Red-eyed Damselfly** was recorded at Warmingham Flash, in Cheshire in 2015. This is the first colony of the species in the county.

Derbyshire - VC 57

David Goddard

Records have been received for a total eighteen species covering the typical species normally recorded within the county. There were no records submitted for 2015 for the **Small Red-eyed Damselfly**. It will be interesting to see if this species can still be found at its normal haunts and be recorded during 2016.

I am as always indebted to all those people and organisations that have submitted records.

Cheshire – VC 58

David Kitching

A slow start to the season saw only **Large Red Damselflies** in April and even in May there were few insects to be found. However, by the end of the month plenty of **Common Clubtail** were seen on the River Dee at Aldford and Farndon. An early **Emerald Damselfly** was found in Delamere Forest at the end of the month and **Downy Emerald** was seen at Hatchmere.

The **Hairy Dragonfly** was noted in the usual locations and an individual seen at Marbury Park may indicate further range expansion. Poor weather in June did not help observers monitoring the **White-faced Darter** reintroduction project



and few adults were seen. **White-legged Damselfly** continues to be present on the Llangollen Canal and this year Stephen Barlow found several adults in a new location at Wrenbury Heath on 1st July. Neil Friswell found **Golden-ringed Dragonfly** on the Dee near Farndon. This species has been spotted in this area over a number of years but no known breeding location has been found in Cheshire or on the Welsh side of the border.

A highlight of the season came

on 18th August when Andrew Goodwin discovered the first Cheshire colony of **Small Red-eyed Damselfly** at Warmingham Flash near Sandbach. Breeding behaviour was observed and it is hoped that this will become a permanent population.

A late **Common Hawker** was found by bird ringers at Oxmoor Nature Reserve on 1st October. Other October records were just **Common Darter** and **Migrant Hawker** with the latter being latest record on the 31st. No records of **Beautiful Demoiselle** were received in 2015 but this is probably down to nobody visiting the few remote locations where this species is normally seen.

Details by month with photographs can be found on the Cheshire Odonata website at www.brocross.com/dfly/dfly.htm

South-east Yorkshire – VC61

Paul Ashton

As Vice-county recorder it's always rewarding to receive records of new species for the area. This year Barry Warrington managed to find a migrant species lurking in his Hessle garden, in the shape of a **Vagrant Emperor**. In the wider context of Yorkshire I believe this represents the 3rd record for Whole County. What an amazing



©Barry Warrington

The **Vagrant Emperor** which arrived in a garden in South-east Yorkshire in 2015, a new record for the area.

find!

Adding another feather to Barry's cap, he also found the first **Red-veined Darters** of the year in the dunes at the tip of Spurn Point. Subsequently several more were reported from their more usual haunt of Clubley's scrape, where females were observed ovipositing. In addition to Spurn, several were found further along the coast at Filey Dams Nature Reserve, on East Lea Pond.

Other notable news involved **Banded Demoiselles**, several individuals being found on the River Hull at Tickton on several dates. There have been many records of singletons from various points along the River Hull prior to these records, though this appears to suggest that they are now becoming established here.

Common Hawkers are a scarce dragonfly in South-east Yorkshire, confined to the West of the Yorkshire Wolds. There were very few records received this year for this species, all confined to one site. Whether this is a sign of decline or under recording only time will tell.

2015 was my final year as VC61 recorder after serving 10 years. Many thanks to all who have supported me during this time, after all, it's your records that have made the difference. Thank you to all who have adopted iRecord for submitting their records, this will certainly make the Vice-county Recorder's role easier going forward. Martin Roberts will be taking over for 2016, so please support him as he steps up to the challenge. www.yorkshiredragonflies.org.uk

North-east Yorkshire and North-west Yorkshire – VC 62 & 65

Keith Gittens

With night temperatures staying in single figure well in to May it was a slow start to the year. However newly discovered sites in 2014 for both species of **Red-eyed Damselfly** created an air of anticipation to the start of the 2015 season. It was extremely pleasing therefore to find both species were again present with evidence of breeding and emergence.

One of my regular haunts for recording and an excellent site is Strensall Common, the numerous ponds and ditches holding a wide variety of species. A recently dug pond, shallow in nature, always held the promise of adding an extra species to the list and I was not to be disappointed with **Black-tailed Skimmer** being recorded for the first time. This takes the species list to 19 of which 17 show evidence of breeding.

While numbers stayed low for some species right the way through the year, there were good reports of emergence for **Southern Hawker** from a couple of garden ponds with numbers of exuvia counted well in to double figures. The mild late summer and autumn also meant that records continued well in to late October for some hawkers and darters.

Most records coming in this last season were via iRecord, a definite improvement to collating and verifying. Thanks to all for picking it up so quickly.

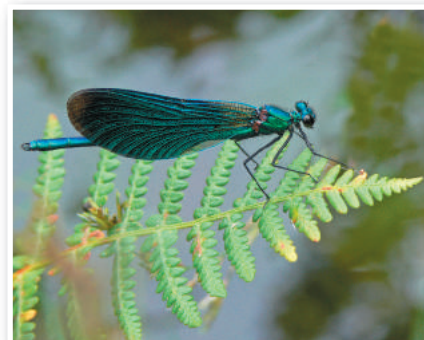
Finally a plea goes out once again for anyone living in or visiting the Yorkshire Dales in North-west North Yorkshire to look out for suitable dragonfly sites and send in some records.

South-west Yorkshire - VC 63

Alistair McLean

2015 has proven to be an interesting year for dragonfly spotting. Attempts to determine whether the **Hairy Dragonfly**, is expanding its range South or East of Potteric Carr (SE5900) have so far proven fruitless, although doubtless we will continue to search next year.

The **Banded Demoiselle**, has been gradually expanding its range through the county for some years. Normally a lowland species, it is becoming more common to find this species at higher altitudes. This year, it was spotted on Burbage Moor (Derek Whiteley), just over the Derbyshire border (apologies to the Derbyshire recorder) at an altitude of over 400m. Perhaps



© Tim Melling

A male **Beautiful Demoiselle**. Seen in south-west Yorkshire in 2015 for the first time in at least 50 years.

more surprisingly, its close relative, the **Beautiful Demoiselle** was spotted for the first time in at least 50 years in VC63 this year (Don Andrew) at Brockadale.

Similarly, the **Red-eyed Damselfly** has become more widespread across the county over the last 10 years. It now appears to be consolidating its position and has become quite numerous in areas it's known to frequent.

Finally, it would seem that the many years of comparatively simple identification of the **Emerald Damselfly** are finally coming to an end in VC63. There is evidence that the **Scarce Emerald Damsel** is beginning to move into the area. The difference between the two species is almost impossible to detect unless it's in the hand. If the second segment of the abdomen is completely blue, you have *L. sponsa*. If some of this segment is metallic green, you have *L. dryas*. Don't forget to check those abdomens!

Westmorland and Cumberland – VC 69 & 70

David Clarke

After the two good seasons of 2013 and 2014, 2015 was in marked contrast, with hardly any settled conditions, little sun and often below-average temperatures throughout much of the main flight season. The effects on dragonflies and their watchers was evident, with the relative dearth of records this season: in a year that brought Painted Lady migrants in some numbers, the dragonfly scene had no equivalent. Perhaps the most exciting bit of news was the good



number of **White-faced Darters** that emerged at the Foulshaw Moss re-introduction site, as reported in Dragonfly News 68.

An interesting ad hoc assemblage of records arose as a consequence of the surprise breeding of Bee-eaters at a sand quarry in the north of VC70 (NY55). A daily watch at the site was organized by the RSPB, who brought in one or two staff for this purpose, partly to manage the large number of human visitors. The 'watch' and the constant procession of visiting observers brought some interesting sightings, especially from late July through to the end of August when the birds were feeding young. There were frequent observations, and photos, of Odonata being brought to the nest. Most of the prey items were seen too distantly for certain identification, though clearly both hawkers and darters were included: **Banded Demoiselles** however were definitely amongst the prey. There were several casual sightings of other species, unrelated to the birds' activities and seen much closer to the observers: these included a **Beautiful Demoiselle**, **Migrant Hawk**, **Keeled Skimmer** and **Broad-bodied Chaser** – all reported by experienced naturalists. Only the last-mentioned had previous records from this part of the county. Perhaps most unexpected of all was a **Brown Hawker** on 26

August at Lanercost (NY56), some 5km from the Bee-eater site, and only the second in the north of the county in recent years.

More generally, **Banded Demoiselles** in VC70 seemed little affected by the poor summer. On the R. Wampool they were present in good numbers well within extreme tidal limits near Angerton (NY25). New colonies continue to be found, often on small stretches of otherwise unsuitable rivers – as on the R. Irthing at Lanercost (NY56). (The latter could have been a source for the predation mentioned above.) **Migrant Hawk**s were reported around the south coast, and at least 20 were present near Workington (NX93) in the west in early September, although inner Solway sightings were almost non-existent. A **Borrowdale** report (NY22) in mid August was far inland and unusual for the Lake District area. Except as above, **Broad-bodied Chaser** was reported from several sites, all in 100km square SD; **Emperor Dragonfly** was again noted at various lowland sites countywide. It was good that **Ruddy Darters** were confirmed as still present in the Solway area at Oulton gravel pits, where they were first recorded some eighteen years ago (NY25). This was the only reported site in Cumbria in 2015. **White-faced Darters** were once again seen in tiny numbers (2 in both early

and late June) at Claife Heights, Windermere (SD39). Dragonfly News 69 has more to say about this area. The good numbers apart, this shows clearly that two of the pools into which stock has never been translocated (Pools 2 and 5) produced significant numbers, showing that on-site breeding has been very successful in this odd-numbered year generation. The 2016 outcome is awaited with interest!

Scotland VC72 – 112

Pat Batty

The weather in Scotland was generally poor in 2015 with a cold wet spring and summer. Summer weather didn't arrive until September. As a consequence dragonflies emerged 2-3 weeks later than usual. However with the warm autumn they continued to fly much later in the year with **Common** and **Southern Hawk**s recorded up to the end of October and **Common Hawker** into November.

In Scotland we have made a start at looking at key/ priority sites particularly in identifying sites where up dated records and more breeding information was needed. We are also working with the Forestry Commission and other conservation bodies regarding this.

Colin Hall found new breeding sites for the **Northern Emerald** in Glen Affric, at Dundreggan, (Glen Morriston) and Corrimony (Strathglass). He also found larvae of this species at Loch Bran and Lochan na Deala south Lochness-side. Larry Templeton found larvae in Glen Shira. New sightings of **Northern Emerald** were also on Mull in Morven and at Grantown.

Through Colin's and others previous work in Glen Morriston a large area of breeding pools for the **Azure Hawker** have been discovered, the site extends towards Glen Affric and it is one of the most extensive and important sites for the **Azure Hawker** alongside the Loch Maree area. Feeding adults were also recorded in Glen Lyon, Glen Cannich and Loch Treig area,



©David Clarke

A Golden-ringed Dragonfly on an old spike of Bog Asphodel at Borrowdale, Cumbria.



the latter being the first sighting since historical records.

The **White-faced Darter** was established breeding by Larry Templeton at new sites and hectads at Daviots woods in Strathnairn, Kinellan near Strathpeffer and at the Lochs of Bogmussach in Moray. Colin Hall also proved breeding at further sites in Glen Affric and Corrimony. Larry Templeton found larvae for the **Brilliant Emerald** at Loch Bran, Lochan na Deala and Loch Ruaridh south of Loch Ness and also it was proved breeding at sites in Glen Affric not surveyed recently. Additional breeding sites were also found to the west of Loch Awe. The **Downy Emerald** has also been proved breeding at Loch Bran.

Northern Damselfly was seen at new sites in three areas on Insh Marshes, at Dinnet and near Logierait. Work was done at Lochan Buidhe, Logierait by the Butterfly Conservation Society's bog squad and BDS volunteers to raise water levels. Also the landowner of the Upper Mires here created lochans to provide new habitat near a Northern Damselfly site which is infilling.

The **Keeled Skimmer** and **Beautiful Demoiselle** have been seen at new sites on Mull and in Morven. The **Hairy Dragonfly** has been found at a new site in Dumfries and Galloway.

There have been lots of sightings of the Southern Hawker this year, it has been seen as far north as Golspie. There were also new breeding sites in the Borders and in SW Scotland., Inverness-shire, Stirling and Aberdeenshire.

The **Migrant Hawker** has been recorded at a small number of sites in the south of Scotland, Bob Merritt found larvae at Mersehead RSPB reserve. This is the first breeding record. Roger Broadbent recorded the Migrant Hawker from near Collieston north of Aberdeen on 25th September, the furthest north this species has been seen.

The **Red-veined Darter** was seen from 5th-11th July at Millar's Moss

St Abbs, a maximum of 24 were seen by David Graham, the most seen in the UK at that time. Abby Marland also saw it at Aberlady near Edinburgh. On the 5th July the **Black-tailed Skimmer** was also seen at Millar's Moss. The **Emperor Dragonfly** was not recorded this year.

A Scottish Committee was set up to co-ordinate work in Scotland and give support to the Scottish Officer. Despite the poor summer, recorders have been very active with over 2000 records from nearly 100 people and 600 days spent in the field. Some under recorded squares in the north were visited. I give many thanks to all who have contributed.



©Dave Ashton

A female **Northern Emerald**. Several new locations and breeding sites were found for this species in Scotland in 2015.

The Scottish Dragonfly Conference 2016

On 2nd April, the Scottish Dragonfly Conference will be taking place at the Soutar Theatre, AK Bell Library, York Place, Perth, PH2 8EP from 10am to 4.30pm. Coffee will be available from 9.30am.

We will have a range of interesting speakers with topics including The White-faced Darter re-introduction in Cumbria: the anatomy of a project, Beavers & Dragonflies at Knapdale, Butterfly Conservation Scotland Bog Squad work & recording, Dumfries & Galloway - not like it used to be, Dragonfly photography & emergence, Glen Affric Peatland Restoration Programme recording, 2015 Hotspots & community working update, White Holes & iRecord and Dragonflies & Climate Change.

The Soutar Theatre holds 125 people so there is plenty of space for family and friends! Please book your place through the Eventbrite link on the 'Upcoming Events' page on the BDS website.

Lessons from the re-introduction of the **White-faced Darter** at the Scottish Conference 2016.



©Wim Zoeteman



Priority Sites in Scotland

Pat Batty

Over the past two years, staff and volunteers at the BDS have been working hard to identify and protect Scotland's dragonfly national treasures.



Work has started to look at Priority Sites in Scotland, as defined by BDS criteria. Such sites are classified as important because they support viable breeding populations of nationally- or locally-important species, or of a high diversity of species.

The main objective in identifying these sites is to make landowners/managers aware of important dragonfly sites on their land. It is hoped that such sites will then be maintained and not inadvertently damaged. Additionally, landowners may ask for management advice.

The first job was to gather information about potential sites. Even a quick sort gave well over a thousand sites, when national and locally important species were considered, not counting sites with a high diversity of species. As Scotland has a number of nationally rare species these were prioritised. Over two hundred potential 'sites' were identified. Of these, a number had current breeding information; exuviae found, emergence or egg laying seen or larvae present.

Common Name	Scientific Name	IUCN Status
Azure Hawker	<i>Aeshna caerulea</i>	Vulnerable
White-faced Darter	<i>Leucorrhinia dubia</i>	Endangered
Brilliant Emerald	<i>Somatochlora metallica</i>	Vulnerable
Northern Emerald	<i>Somatochlora arctica</i>	Near Threatened
Northern Damselfly	<i>Coenagrion hastulatum</i>	Endangered
Variable Damselfly	<i>Coenagrion pulchellum</i>	Near Threatened

There are **six** important dragonfly species in Scotland with **two** 'Endangered' species.

Now, much more survey work is needed to update records and prove breeding. This is a large task, given the weather in Scotland and the remoteness of many sites. Larvae of Brilliant and Northern Emerald can be difficult to find and it is never easy timing visits to coincide with emergence. Additionally, exuviae do not survive long in wet and windy weather. A start has been made to this mammoth task and several sites now have breeding information. New sites for the rare northern species have also been found in the process.

One of the difficulties in Scotland has been in defining a site. In some situations it is fairly straightforward, where a loch and its surrounding wetland are a separate entity. Sites for the Brilliant Emerald, for example, are discreet and easily defined. It is more difficult for species that breed in bog pools and runnels scattered through an area. Glen Affric is an extremely important for dragonflies having Azure Hawker, White-faced Darter and Brilliant, Downy and Northern Emerald all breeding in the area. After the latest survey, there are now eleven separate lochs with their surrounding mires and at least seven separate wetlands scattered through the area. Should this be classed as a site complex? The area of interest also extends into Glen Cannich, Corrimony and



A tandem pair of **Northern Damselfly**, a species found only in Scotland in the UK.

the hill ground containing many bog pools which are Azure Hawker breeding pools and stretches south towards Glen Morriston.

Another potential difficulty is also identifying and contacting landowners. Glen Affric is owned and managed by the Forestry Commission Scotland (FCS), which has many important sites for dragonflies on its ground. Over 75% of sites for the Brilliant Emerald are within FCS landholdings. We have had a positive response from FCS and started to liaise over priority sites, continuing survey work, working with their conservation staff on bog restoration and providing training and management advice. The same is true for other conservation organisations, such as the RSPB and the National Trust for Scotland. This is a large, long-term task for volunteers. However, an additional consideration is that the optimal habitat requirements for our rare species are not fully known, thus it is not straightforward to give management advice.

Some of the priority sites are also Sites of Special Scientific Interest (SSSI). These sites are being monitored on a six year rolling programme for Scottish Natural Heritage



A volunteer work party installing dams at Glen Affric. The BDS, in partnership with other organisations, is working to restore peatlands at this site.



(SNH) and the BDS has also been involved in providing management advice.

Logierait Mires is the only SSSI that has been solely designated for its dragonfly interest, for the Northern Damselfly. The Curling pond is the main site that has a large breeding population. There are also several smaller sites, which have been infilling through vegetational succession. In conjunction with SNH and progressive landowners, management work has been carried out to restore these areas. One site, which had Northern Damselfly recorded in the 1980s, was completely infilled. This had transformed the site to boggy ground with only a small area of water and few dragonfly species. This was excavated to make a large sheltered pool. The Northern damselfly site above this had a population of over twenty larvae in 2014, but was had infilled rapidly by September 2015 and there was concern about the viability of this site. A new pool was excavated adjacent to it with the



©Pat Batty

Upper Pool at Logierait Mires, a SSSI designated solely for its dragonflies.

hopes that this will colonise before the existing pool becomes unsuitable. Both pools were former kettle holes and there was a good clay base at the depth of the existing pool.

At Lochan Buidhe, another former Northern Damselfly site, the Butterfly Conservations Bog Squad and BDS volunteers inserted a small dam to raise water levels and the FCS repaired a dam at another site to help restore open water. Monitoring will be needed over the next few years to judge the effectiveness of this management.

We have tried to include a spread of priority sites throughout Scotland with coverage of the rare species. To date we have the following sites with more to be added shortly:

Castle Fraser, Aberdeenshire NTS, two breeding pools for Northern Damselfly.

Castle Loch Lochmaben, Dumfries & Galloway, a



© Stu Smith (Flickr CC BY-ND 2.0)

Castle Fraser, Aberdeenshire. A site for the rare Northern Damselfly.

breeding site for Variable Damselfly, with 13 species recorded, and also a local nature reserve.

Logierait Mires, four Northern Damselfly breeding sites under various landowners including FC and Atholl estates (2 priority sites).

Meall nan Samnha, Glen Lyon, a breeding site for Northern Emerald.

Newmains Farm ponds, Reston, Berwickshire, 17 species recorded and the Emperor dragonfly and Broad-bodied Chaser have bred here.

Corrimony Glen RSPB, Cannich, breeding site for White-faced Darter, Northern Emerald and Azure Hawker with occasional Brilliant Emerald.

In addition, we are working with FCS who have nearly fifty individual sites, and other conservation bodies.

If you are interested in helping with survey work please contact Daniele Muir, the Scottish Officer who will put you in touch with the local co-ordinator. I would be very interested to hear how other areas are progressing with priority sites and how they have resolved some of the issues mentioned here.



©Erland R.N. (Flickr)

A male Azure Hawker. Priority Site, Corrimony Glen, RSPB, is a breeding site for this vulnerable species.



The Scottish Dragonfly Group

2015 saw the formation of the Scottish Dragonfly Group, an alliance of knowledgeable enthusiasts working together to improve the future of dragonflies in Scotland.

The Scottish Group is working towards the following aims:

- To promote dragonflies and their habitats to the general public.
- To promote the BDS and encourage new members.
- To provide training for ID and also for people to lead events.
- To gather more dragonfly records, particularly for under-recorded areas and Key Sites with records more than 10 years old.
- To work with landowners to promote the conservation/restoration of habitat.
- To promote awareness of key sites to landowners etc
- To achieve both of the above through collaboration with other relevant organisations.
- To facilitate the creation and running of informal local groups to share local dragonfly information and news as well as act as the main contact for local key sites.
- To organise a regular (biennial) Conference.
- To work with the Dragonfly Conservation Group and support the work of the Scottish officer.



A dragonfly surveying event on Skye, Scotland.

©Jonathan Willet

Many group members have also become area co-ordinators, the first point of contact for dragonfly enquiries in their areas and a great help in pinpointing sites which are under-recorded for dragonflies. They can then help coordinate surveys of sites, with Key Sites that have breeding populations of Scottish rarities the priority over the past 18 months. We have already received a number of valuable new sightings as a consequence.

As there are so many potential Key Sites, the focus for 2016 is on Forestry Commission sites, with a target of five new Key Sites designated each year. If anyone is interested in getting involved at these under-recorded sites, please contact Daniele (Scotland@british-dragonflies) and she will put you in touch with the local area co-ordinator.

Checklist of British Species

Common Name	Scientific Name
Damselflies	
Calopterygidae	
Banded Demoiselle	<i>Calopteryx splendens</i>
Beautiful Demoiselle	<i>Calopteryx virgo</i>
Lestidae	
Emerald Damselfly	<i>Lestes sponsa</i>
Scarce Emerald Damselfly	<i>Lestes dryas</i>
Southern Emerald Damselfly	<i>Lestes barbarus</i>
Willow Emerald Damselfly	<i>Lestes viridis</i>
Platycnemididae	
White-legged Damselfly	<i>Platycnemis pennipes</i>
Coenagrionidae	
Large Red Damselfly	<i>Pyrhosoma nymphula</i>
Small Red Damselfly	<i>Ceriagrion tenellum</i>
Common Blue Damselfly	<i>Enallagma cyathigerum</i>
Azure Damselfly	<i>Coenagrion puella</i>
Variable Damselfly	<i>Coenagrion pulchellum</i>



Common Name	Scientific Name
Southern Damselfly	<i>Coenagrion mercuriale</i>
Northern Damselfly	<i>Coenagrion hastulatum</i>
Irish Damselfly	<i>Coenagrion lunulatum</i>
Dainty Damselfly	<i>Coenagrion scitulum</i>
Norfolk Damselfly	<i>Coenagrion armatum</i>
Red-eyed Damselfly	<i>Erythromma najas</i>
Small Red-eyed Damselfly	<i>Erythromma viridulum</i>
Blue-tailed Damselfly	<i>Ischnura elegans</i>
Scarce Blue-tailed Damselfly	<i>Ischnura pumilio</i>
Dragonflies	
Gomphidae	
Common Club-tail	<i>Gomphus vulgatissimus</i>
Cordulegastridae	
Golden-ringed Dragonfly	<i>Cordulegaster boltonii</i>
Corduliidae	
Downy Emerald	<i>Cordulia aenea</i>
Brilliant Emerald	<i>Somatochlora metallica</i>
Northern Emerald	<i>Somatochlora arctica</i>
Orange-spotted Emerald	<i>Oxygastra curtisii</i>
Aeshnidae	
Azure Hawker	<i>Aeshna caerulea</i>
Southern Hawker	<i>Aeshna cyanea</i>
Brown Hawker	<i>Aeshna grandis</i>
Norfolk Hawker	<i>Anaciaeschna isosceles</i>
Common Hawker	<i>Aeshna juncea</i>
Migrant Hawker	<i>Aeshna mixta</i>
Hairy Dragonfly	<i>Brachytron pratense</i>
Emperor Dragonfly	<i>Anax imperator</i>
Vagrant Emperor	<i>Anax ephippiger</i>
Lesser Emperor	<i>Anax parthenope</i>
Libellulidae	
Common Darter	<i>Sympetrum striolatum</i>
Ruddy Darter	<i>Sympetrum sanguineum</i>
Black Darter	<i>Sympetrum danae</i>
White-faced Darter	<i>Leucorrhinia dubia</i>
Red-veined Darter	<i>Sympetrum fonscolombii</i>
Yellow-winged Darter	<i>Sympetrum flaveolum</i>
Broad-bodied Chaser	<i>Libellula depressa</i>
Four-spotted Chaser	<i>Libellula quadrimaculata</i>
Scarce Chaser	<i>Libellula fulva</i>
Black-tailed Skimmer	<i>Orthetrum cancellatum</i>
Keeled Skimmer	<i>Orthetrum coerulescens</i>
Wandering Glider	<i>Pantala flavescens</i>



DRAGONFLY RECORDING NETWORK

Please send your records to the correct Vice-County Recorder, who will send data to the DRN National Database.

Vice-County	Vice-County Recorder	Contact Details
England & Wales		
1. West Cornwall (with Scilly)	Perry Smale	48, Madison Close, Hayle, Cornwall, TR27 4BZ. Tel: 07412 262184. smaleperry@yahoo.co.uk
2. East Cornwall		
3. South Devon	Dave Smallshire	8 Twindle Beer, Chudleigh, Newton Abbot, TQ13 0JP. Tel: 01626 853393, E-mail: davesmallss@btinternet.com
4. North Devon		
5. South Somerset	Chris Iles	Arborfield, Holcombe Hill, Holcombe, Radstock, Somerset BA3 5DN. Tel: 01761 239092. kifill22@hotmail.com
6. North Somerset	Position Vacant	Send to Chris Iles (VC 5)
7. North Wiltshire	Steve Covey	130, White Edge Moor, Liden, Swindon, Wilts, SN3 6LY. Tel: 01793 349040, E-mail: steve.covey@ntlworld.com Blog: http://wiltshire-dragonfly-news.blogspot.co.uk
8. South Wiltshire		
9. Dorset	Andrew Brown	Ground floor flat, 15 Lytton Road, Bournemouth, BH1 4SH Tel: 07891 573267. brown_a_r@yahoo.co.uk Website: www.dorsetdragonflies.org.uk , Facebook 'Dorset Dragonflies'
10. Isle of Wight	Position Vacant	Send to records@british-dragonflies.org.uk
11. South Hampshire	Paul Ritchie	Tel: 07484813372 paulritchie@hampshiredragonflies.co.uk
12. North Hampshire	David Murdoch	01962 808853. damurdoch@hotmail.com
13. West Sussex	Bob Foreman / Ben Rainbow	Send records to Bob Foreman. Tel: 01273 497570. email: bobforeman@sussexwt.org.uk . Recorder: Ben Rainbow. ben.rainbow@ntlworld.com
14. East Sussex		
15. East Kent	John & Gill Brook	1 Barrack Cottages, Lower Street, Broomfield, Maidstone, Kent, ME17 1PU. Tel: 01622 862227
16. West Kent		
17. Surrey	Surrey Biodiversity Information Centre	Surrey Biodiversity Information Centre, c/o Surrey Wildlife Trust, School Lane, Pirbright, Woking, Surrey, GU24 0JN. Tel: 01483 795448. surreybic@surreywt.org.uk
18. South Essex	Ted Benton	13 Priory Street, Colchester, Essex, CO1 2PY. Tel: 01206 86732, E-mail: tbenton@essex.ac.uk
19. North Essex		
20. Hertfordshire	Roy Woodward	62c High Street, Cheshunt, Hertfordshire EN8 0AH. Tel: 07855 567332. roy.rkwoodward@ntlworld.com
21. Middlesex	Nigel Scott	55, Manygate Lane, Shepperton, MIDDLESEX, TW17 9EJ. Tel 01932 267645 nigel.mcm@ntlworld.com
22. Berkshire	Mike Turton	7 Fawcett Crescent, Woodley, Reading, Berks RG5 3HX. E-mail: berksdragonflies@gmail.com
23. Oxfordshire	Stephen Burch	stephen@stephenburch.com Website: www.stephenburch.com
24. Buckinghamshire	Alan Nelson	74 Holland Way, Newport Pagnell, Milton Keynes, Bucks, MK16 0LW. E-mail: bucksdragonflies@googlemail.com
25. East Suffolk	Adrian Parr	10 Orchard Way, Barrow, Bury St Edmunds, Suffolk, IP29 5BX. Tel: 01284 810 465. E-mail: adrian.parr@btinternet.com
26. West Suffolk		
27. East Norfolk	Pam Taylor	Decoy Farm, Decoy Rd, Potter Heigham, Norfolk, NR29 5LX. Tel: 01692 670 311. E-mail: pamtaylor@british-dragonflies.org.uk
28. West Norfolk		
29. Cambridgeshire	Val Perrin	13, Pettitts Lane, Dry Drayton, Cambs, CB3 8BT. Tel/Fax: 01954 780467, E-mail: valperrin@aol.com
30. Bedfordshire	Rory Morrissey	25 Alwins Field, Leighton Buzzard, LU7 2UF. Tel: 01525 372477 dragonflies@bnhs.org.uk
31. Huntingdonshire	Val Perrin	See VC 29 above
32. Northamptonshire	Mark Tyrrell	8 Warwick Close, Raunds, Wellingborough, Northants, NN9 6JH. Tel: 01933 389 748, E-mail: mark.p.tyrrell@ntlworld.com Website: www.northantsdragonflies.blogspot.co.uk
33. E. Gloucestershire	Ingrid Twissell	Arfonia, The Green, Churchdown, Glos, GL3 2LE. Tel: 01452 714413, E-mail: canditwissell@btinternet.com
34. W. Gloucestershire		
35. Monmouthshire	Position vacant	Send to records@british-dragonflies.org.uk
36. Herefordshire	Evan Bowen-Jones	c/o Hereford Wildlife Trust, Lower House Farm, Ledbury Road, Tupsley, Hereford, HR1 1UT. Tel: 01684 564 872. records@herefordshirewt.co.uk
37. Worcestershire	Mike Averill	49 James Road, Kidderminster, Worcs, DY10 2TR. Tel: 01562 638571, E-mail: mike.averill@blueyonder.co.uk
38. Warwickshire	Peter Reeve	The Outspan, Leamington Hastings, nr. Rugby, Warwickshire, CV23 8DZ. Tel: 01926 632 400, E-mail: peter@reeve60.org.uk Website: www.warwickshire-dragonflies.org.uk
39. Staffordshire	Dave Jackson	11 Hyperion Drive, Penn, Wolverhampton WV4 5QW Tel: 01902 344716. jacksongrus@talktalk.net
40. Shropshire	Sue Rees Evans	info@shropshiredragonflies.co.uk Tel: 01743 354507 Website: http://shropshiredragonflies.co.uk

41. Glamorgan ¹	Mike Powell	87 Coed Glas Road, Llanishen, Cardiff, CF14 5EL. Tel: 029 2076 2182 E-mail: Mike.powell2011@btinternet.com
42. Breconshire ¹	Keith Noble	25 Belle Vue Gardens, Brecon, LD3 7NY, Tel: 01874 620133, E-mail: knoble.kn@btinternet.com
43. Radnorshire ¹	Bob Dennison	Maes y Geidfa, Crossgates, Llandrindod Wells, Powys, LD1 6RP. Tel: 01597 851 702. E-mail: rd19366@googlemail.com
44. Carmarthenshire ¹	Stephen Coker	Mountain Grove, Clarboston Road, Haverfordwest, Pembrokeshire, SA63 4SG Tel: 01437 563 566 E-mail: stephen.coker@live.co.uk
45. Pembrokeshire ¹		
46. Cardiganshire ¹	Lin Gander	Penwalk Llechryd, Cardigan Ceredigion, SA43 2PS. Tel: 01239 682405 E-mail: lingander@strandings.demon.co.uk
47. Montgomeryshire ¹	Anne Coker	Mountain Grove, Clarboston Road, Haverfordwest, Pembrokeshire, SA63 4SG. Tel: 01437 563 566 stephen.coker@live.co.uk
48. Merionethshire ¹	Allan Brandon	Bryn Heilyn, Rowen, Conwy LL32 8YT. Phone 01492 651 066, E-mail: allanrowenconwy@sky.com Website: www.british-dragonflies.org.uk/local_groups/north-wales-dragonflies
49. Caernarvonshire ¹		
50. Denbighshire ¹		
51. Flintshire ¹		
52. Anglesey ¹		
53. South Lincolnshire	Nick Tribe/Richard Chadd	Nick Tribe, 12 Little Bargate Street, Lincoln, LN5 8JR. Tel: 01522 822069 nick.tribe@ntlworld.com
54. North Lincolnshire		
55. Leicestershire (with Rutland)	Ian Merrill	125 Church Lane, Whitwick, Coalville, Leicestershire. LE67 5DP Tel: 01530 815886. i.merrill@btopenworld.com
56. Nottinghamshire	Dave Goddard	30 Cliffe Hill Avenue, Stapleford, Nottingham, NG9 7HD; E-mail: david.goddard@wyg.com
57. Derbyshire		
58. Cheshire	David Kitching	30 Carleton Road, Poynton, Stockport, Cheshire, SK12 1TL. Tel: 01625 423249. davidk@broccross.co.uk Also online: www.broccross.com
59. South Lancashire	Steve White	Tel: 0151 707 2744 (daytime). stevewhite102@btinternet.com
60. West Lancashire		
61. South-east Yorkshire	Martin Roberts	48 Stratford Way, Huntington, York YO32 9YW Tel: 01904 761918 vc61@yorkshiredragonflies.org.uk Facebook Page: www.facebook.com/groups/yorkshiredragonflies
62. North-east Yorkshire	Keith Gittens	Sunnybank, Low Street, Hushwaite. York. YO61 4QA. Tel: 01347 868606. brilliantemerald@btinternet.com
63. South-west Yorkshire	Alistair McLean	Museums Sheffield, Weston Park, Western Bank, Sheffield, S10 2TP. Tel: 0114 278 2648. alistair.mclean@museums-sheffield.org.uk
64. Mid-west Yorkshire	Tom Hubball	4 South View Terrace, Silsden, W.Yorks, BD20 0AS. Tel: 01535 678334. vc64dragonfly@virginmedia.com
65. North-west Yorkshire	Keith Gittens	Sunnybank, Low Street, Hushwaite. York. YO61 4QA. Tel: 01347 868606. brilliantemerald@btinternet.com
66. Durham	Ian Waller	4 Basic Cottages, Coxhoe, Co. Durham, DH6 4LF Email: aeshna@hotmail.com
67. S. Northumberland	Michael Gardner	28 Coxlodge Road, Newcastle-Upon-Tyne, NE3 3UZ. Tel: 07827 842516 vc67dragonflies@gmail.com
68. N. Northumberland		
69. Westmorland	David Clarke	Burnfoot, Cumwhitton, Brampton, Cumbria, CA8 9EX. Tel: 01228 560117 E-mail: davidclarke6970@gmail.com
70. Cumberland		
71. Isle of Man	Position vacant	Send to records@british-dragonflies.org.uk
Scotland		
From 72. Dumfriesshire to 112. Shetland Islands	All records to Pat Batty	Kirnan Farm, Kilmichael Glen, Lochgilphead, Argyll, PA31 8QL. Tel: 01546 605 316, E-mail: dragonfly.batty@gmail.com
113. Channel Isles	Julian Medland	Clyne, Rue de la Ronde Cheminée, Castel, Guernsey, GY5 7GE. Tel: 01481 255 411. medland@cwgsy.net
Northern Ireland and Eire	All records to Brian Nelson	National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, 7 Ely Place, DUBLIN 2, IRELAND. brian.nelson@ahg.gov.ie Facebook 'Dragonfly Ireland'
Migrant Dragonfly Project	Adrian Parr	10 Orchard Way, Barrow, Bury St Emunds, Suffolk, IP29 5BX. Tel: 01284 810 465 Email: adrian.parr@btinternet.com



¹ Very many changes have occurred in the names and mapped borders of Welsh counties in recent years. If you are unsure of which vice-county you have records for please make a 'best guess'. Once they have a grid reference they will be seen by the correct recorder for verification.

Any amendments or corrections? Please contact David Hepper: records@british-dragonflies.org.uk