Darter



Magazine

Hi and welcome to the 2015 issue of Darter. The Atlas of Dragonflies in Britain and Ireland was published in May 2014 and we have received some excellent feedback. Thanks to all of the vice county recorders, everyone who submitted dragonfly records and the Atlas team for making the production of the Atlas possible. A question many people are asking now is 'what next?'. As you will be aware from the last two editions of Darter, we are still collecting dragonfly records through our DragonflyWatch recording scheme. This is essential for continuing to monitor how dragonflies are faring in the UK. Also, if you have ever considered producing a local atlas, now is a great time to start as you will have good recent record coverage. To help you decide if this is for you, turn to page 4 where Mike Averill and Gareth Harris have written about their experiences of producing local atlases.

The usual migrants round up is on p.3, but what can we expect to see in Britain soon? Turn to p.25 for our predictions – to whet your appetite, here are some photos of the Northern White-faced Darter and Southern Skimmer which appear on the list.

Dragonfly App

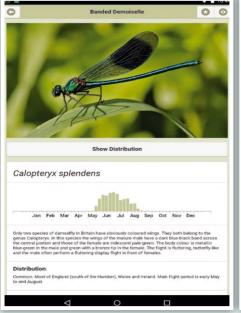
As Darter is being finalised, so is a dragonfly app. This is being produced by the Centre for Ecology and Hydrology (CEH) and Biological Records Centre (BRC). It has ID features, photos, distribution maps and a recording facility and promises to be a really useful tool.

Claire

Claire Install, Editor claire.install@naturalengland.org.uk



Top and right, male Northern (or Ruby) White-faced Darter, bottom left Southern Skimmer - will these make an appearance in Britain soon? All photos taken by Christophe Brochard.





Screenshots of a draft version of the dragonfly app.

The Future of the DRN Recording System

Stephen Prentice

To plan for the future after my final retirement in May 2015 we have been negotiating with the Biological Records Centre (BRC) for them to manage the database on our behalf. Currently the DRN records are stored in Recorder 6 which is a standalone database on my BDS PC. This will mean in future our data will be managed professionally and most importantly be more secure. What is being planned is that our records will be held in the Indicia data warehouse and will be accessible online by VCRs. This will be a true multiuser system. All VCRs need to do is sign up for iRecord and they will then be able to access and verify all new records submitted online including those coming in from BirdTrack and Garden Birdwatch with additional access to historic records. This step forward in technology will cut the time between the record being submitted and being verified, enabling VCRs to contact the recorder with any queries when the sighting is still fresh in their memories. Verified records can then be passed seamlessly through to being published on the NBN Gateway. With the existing system it can take up to one year for a submitted record to appear on the Gateway but with the new system this will be potentially cut to weeks.

Several VCRs have expressed the concern that a new online system will do them out of a job. This is far from the truth as the most important component of the new system is the Vice County Recorders. The new system will take away a lot of the boring data entry while freeing up time for the more interesting verification aspects of the job particularly applying the important local knowledge which no computer system will be able to replace.

Currently not all VCRs are able to use the internet and access the online system. With the BRC we are planning that those few people will get assistance to have their online records exported for verification and the updated records and spreadsheets uploaded to the Indicia database. Despite having this safety net available I would encourage all VCRs to sign up for iRecord. This is the future and I think everyone will like it. If you have suggestions for how to improve the system for your needs, BRC would like to hear them so they can prioritise future improvements to the system.

As I write this we are working with the BRC to finalise details of the system and arranging the detailed transfer of records to the Indicia warehouse. There will be a presentation at Recorders Day on the $14^{\rm th}$ March where I will be showing the updated system as we go into the 2015 recording season. I shall look forward to seeing you there.

If you have not already signed up for iRecord please drop me an email at records@britishdragonflies.org.uk and I will make the necessary arrangements.





Migrant and new colonist species in Britain during 2014

Adrian Darr

Southern Emerald Damselfly: This species did well, being reported from its known breeding sites at Winterton Dunes in Norfolk and Cliffe in Kent. Elsewhere in Kent, good numbers seen in the Sandwich Bay area suggest that the species may have been re-colonising this site after breeding in the early 2000s, while a report of one present near Reculver in July might refer to a fresh immigrant.

Willow Emerald Damselfly: This species was very successful in 2014 with a significant range expansion. Many new sites were discovered within its core areas of Norfolk, Suffolk, Essex and north Kent; in Suffolk it is now near the Cambridgeshire border. In addition, there were reports from two new counties: in Surrey, a colony was discovered at Nutfield Marsh during late summer and individuals were later noted at Littleworth Common, in Hertfordshire small numbers were found at Amwell Nature Reserve (with oviposition) and one was also seen at Balls Wood.

Dainty Damselfly: This species fared badly during 2014. While a few exuviae were discovered at known sites on the Isle of Sheppey, Kent, no adults were found and the breeding ponds now look (at least temporarily) unsuitable for the species. Hopefully emerging individuals dispersed to find more favourable sites. There is a possibility that new sites may now exist elsewhere in south-east England.

Southern Migrant Hawker: Individuals were reported from many of the species' key sites in the Thames Estuary area, with additional records in Essex from Rainham Marshes and Chafford Gorges Nature Reserve. While records in north Kent were relatively substantive, the Essex sightings were generally single individuals seen on single dates.



Migrant Hawker: Large-scale migrations of Migrant Hawker seemed to take place in southeast **England during late July/early** August and also September. This was largely un-remarked upon at the time and if readers have any additional information, please get in touch.

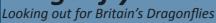
Vagrant Emperor: Three unidentified dragonflies seen in England (one as far north as Yorkshire) from 27 February until 7 March were probably this species. It was recorded on the Channel Islands in late November.

Lesser Emperor: This was seen at 25 sites in Britain during 2014, a marked improvement on the poor numbers from 2013. Cornwall and Norfolk in particular had many sightings, with at least eight individuals (including an ovipositing female) present in Norfolk during mid-June. Most records were primary immigrants, though some locally-bred individuals could also have been present, particularly in Kent (e.g. there were fresh records from New Hythe Lakes, where exuviae have also been discovered recently).

Scarce Chaser: The first record for Oxfordshire was made on Otmoor during July.

Red-veined Darter: Spring/early summer saw large-scale arrivals of this species, something that now occurs nearly annually; records extended as far north as East Yorkshire and Lancashire. Later, from mid-August, a locally-bred second generation was reported from sites such as Badminston in Hampshire, The Lizard in Cornwall, Llanilid in Glamorganshire and Spurn Point in East Yorkshire. The last-mentioned site is surprisingly far north for such an occurrence. At most sites, the number of progeny noted was rather small, perhaps suggesting that, in addition to rapid larval development, some larvae were developing more slowly. There is a possibility of significant numbers of locally-bred Red-veined Darters emerging in England and Wales during spring 2015.







3

Dave Smallshire

Don't forget that within *DragonflyWatch* we can use records at varying levels of detail. Remember the rungs of the ladder in last year's Darter? Obviously we should all be trying to gather information with as much detail as possible, to maximise the conservation benefits from our records.

Please make sure that complete Site Lists for a visit are recorded wherever possible. Even better, of course, are the abundance estimates and breeding evidence that help us to identify **Priority Sites**. It can be very satisfying to gather the evidence from just a few well-timed visits each year that will confirm that a site meets the criteria for a nationally or locally important site. The criteria can be found on the BDS website. Once Priority Sites are established identified, vice county recorders (VCRs) can inform those who ought to be made aware: land owners, reserve managers, the local records centre and the relevant planning authority and agencies (e.g. Environment Agency, Natural England). These are the people who can help to maintain the value of these important dragonfly sites.



Figure 1. White-legged Damselfly at Sandhouse Lane Nature Reserve in VC30. Rory Morrisey.



Figure 2. Red-eyed Damselfly at Strensall, one of the two sites for this species in VC62 this species was only discovered in VC62 in 2014. Keith Gittens.



Writing an Atlas?...Where to Start?!

After the publication of the national Atlas, quite a few dragonfly recorders are looking at their own patch with the ambition of producing a local-scale atlas. This is with good reason, coverage of records is better than it has ever been through the effort devoted to collecting records for the national Atlas and may be sufficient to start a local atlas or provide a good basis to generate more complete local coverage. Starting a local atlas can be quite a daunting prospect with many things to consider; Mike Averill and Gareth Harris have both shared their experiences of writing atlases which will hopefully give you some useful information to consider. Mike is the vice county recorder for Worcestershire, in 1996 he put together and published the first local atlas and more recently he has created a website in place of publishing an updated atlas (http://dragonfliesofworcestershire.weebly. com). Gareth has been working on the Cotswold Water Park Atlas since 2008 with publication imminent, here he addresses things that you may need to consider when producing an atlas and also shares his experiences to date.

The Dragonflies of Worcestershire

Mike Averill

For their first book everyone should write about something you know and care about. For me that was dragonflies. In 1996 after a long recording period coinciding with the National Dragonfly Atlas, I had already decided to produce a book about the Dragonflies of Worcestershire. There had been nothing like it previously and I knew it would do three things; put a marker down as to the status of Worcestershire Dragonflies at that time, encourage people to fill any gaps shown on the distribution maps and so keep the recording spirit going and lastly to repay all the many people who had taken time to send records in.

Since then many more atlases have been produced around the counties and some have even got round to the second edition. It is hard work and enjoyable but not the way to end up as a JK Rowling. Nearly 20 years later when the BDS has just produced its second Atlas the question was 'what about the follow up for Worcestershire?'. I did wonder about a follow up but technology has moved on a lot since 1996 and so I decided to go for the electronic version and combine it with a website. This would enable me to combine the results of the ongoing surveys with news about what is going on in Worcestershire and sometimes further afield.

If you are familiar with websites all this will be a breeze for you but if not, you may need to go on a short course or simply pick up one of the build yourself packages. There are a number of build your own website packages out there and some are free. In the end I decided to go for Weebly. This one is free and doesn't seem to be burdened with advertising. The only thing to consider is whether you want the name "Weebly" in your domain name. For me it didn't matter as once visitors have pasted the site in to their favourites they never look at it again. You can, of course, avoid that if you pay for your own domain name and this may be a consideration if you want an exclusive name like the Dragonflies of Borsetshire, in which case you may have to buy it to secure it in the

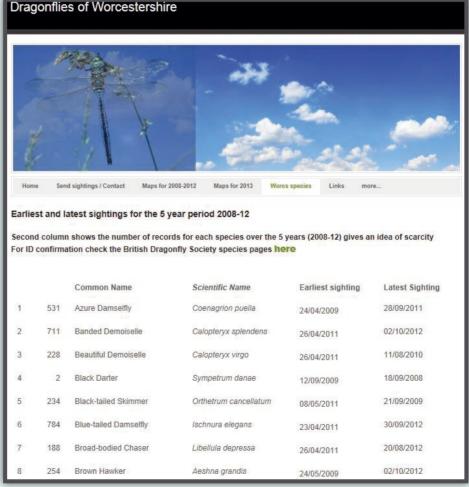


Figure 3. Screenshot of the earliest and latest sightings page on the Dragonflies of Worcestershire website.



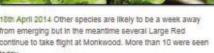
On The Wing

Following early sightings of Large-red Damselflies as far back as March 27th in the south of the country, it wasn't long before the first were to be seen in Worcestershire

14th April 2014 A spell of warmer sunny weather has produced an early first emergence of Large Red Damselfly as expected. This is three weeks earlier than last year. Jason saw this first. record at Monkwood

16th April 2014 The Wordestershire Wildlife Trust Reserves are always vying for dragonfly supremacy and so it's no surprise that Feckenham has also had the Large Red now. This female is from Paul Meers







30th April just starting to emerge before the end of April some Blue-tailed Damseifiles near Pershore and Common Blue Damselflies near Kidderminster, also Banded and Beautiful Demoiselle (from Des Jennings below) at Upton Warren



03 May A fine day and many more Large Red have been seen, with Blue-tailed and Reautiful Demoiselle. First for today is Broad-bodled Chaser at Upton Warren

01 May 2014 much earlier than last year and earlier than for many years the Club-talled Dragonfly has started to emerge on the Severn at Bewdley



06 May 2014 The Azure Damselfly was spotted emerging at Lineholt today. The immature specimens are difficult to tell spur on the side of the thorax that is typical of the

from Common Blue Damselfiles but this one shows the short

Figure 4. Screenshot of the 'On the Wing' section of the Dragonflies of Worcestershire website.

future and avoid anyone else using it. After you have designed your layout and published the site, the next thing is to sign up to Google analytics which enables you to see where all your site visitors come from. This may be a vital tool if you are selling items on the internet but even if you are not, it is fascinating to know where you are being viewed from.

How much you include in your site is very open ended so you could

have identification aids or just refer visitors on to other sites if you think they can do it better. You may want to include a blog site if you want to make it easy to communicate with people about dragonflies. There are all sorts of tools to help you design your website, usually this only requires a drop and drag design stage. You can have internet links to other sites pasted in; google maps of sites to see dragonflies; make links to files containing more detail about

an aspect of dragonfly behaviour; have drop down lists of species and their distribution maps, or earliest and latest sightings; a contacts page where anyone can send you a record or comment via an email address that isn't necessarily shown; if you are selling goods there are options to do that using PayPal and others.

One thing that is important is to use lots of photographs, so always encourage people to send any photos that might be of interest. All photos can be added to a recent sightings page. This also enables the website to be refreshed regularly with current species as they first appear and gives the opportunity to include unusual observations. Now that everyone has a camera / phone, many more interesting facts are being recorded about dragonfly behaviour such as unusual predators, strange pairing by different species or unusually early or late sightings.

One of the main advantages of using a website as an atlas is the ability to post updated maps. This repays the observers by showing their records are being used promptly and provides a source for researchers in the county. Although you can get guite detailed base maps for your county, I decided to keep it simple and use DMAP. This is available at quite a reasonable cost and enables you to plot your data from a spreadsheet so you don't need to worry about running any other additional packages. Figure 5 shows the distribution of the Common Club-tail Gomphus vulgatissimus, for the period 2008-12. From it you can see that the records reflect the three main rivers which drain Worcestershire, the River Teme coming in from the left, the River Avon from the right and the River Severn which they both join, running down the middle.

A website is a developing process so you can build and add as you go along and it doesn't have to be perfect first time, unlike a book. It is very important though to keep it ticking over and updated all the time otherwise people will not return if it appears static.

After publishing your site there will be a slight delay and an initial feeling



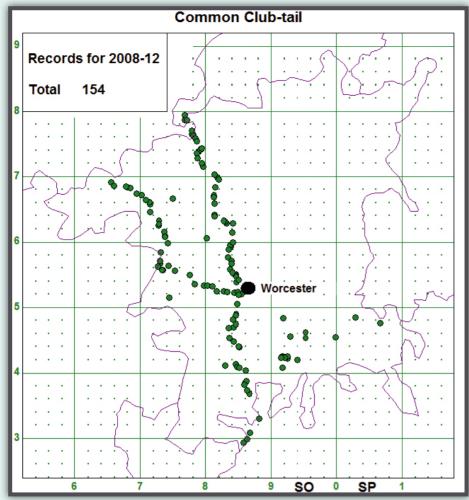


Figure 5. A map showing Common Club-tail records in Worcestershire between 2008 and 2012. This was produced on DMAP.

of disappointment as it appears that googling your site doesn't produce any results. This is only temporary and eventually the 'Googlebots' as they are called will find your site as they crawl through the millions of words that are published on different peoples' websites. One of the key things to do is make sure you include key words related to your subject in the Google search boxes, the more you have, the more likely someone will find your site if they are searching for dragonfly facts. Obviously words directly related to your county site are the most important to include. Within a week you will notice your site moving up the search hit list and hopefully you will eventually be the first in the list.

There are some incredibly good websites out there so have a look at what others have done before you start designing www.british-dragonflies.org.uk/content/local-groups

The best thing about a website is that it is alive and hopefully never out of date but it does need continued work to keep it like that.

Publishing an Atlas The Cotswold Water Park Dragonfly Atlas

Gareth Harris

Introduction

The Cotswold Water Park (CWP) lies at the head of the Thames Valley, comprising a network of rivers within which lies a mosaic of wetlands including over 150 waterbodies. This abundance of wetland habitats offers a rich habitat for a large assemblage of dragonflies and damselflies.

The Cotswold Water Park Trust (CWPT) launched the Cotswold Water Park (CWP) Dragonfly Atlas Project in 2008 to coincide with the BDS's national atlas project and to promote the local recording of Odonata, to publish an atlas and to promote the area's biodiversity.

The atlas is scheduled for publication in summer 2015. Claire Install kindly asked me to write this article to demonstrate how we went about publishing our atlas, the

considerations and decision-making processes. In this respect I may be slightly fraudulent since it's not yet finished! Nonetheless I can offer some thoughts and insights resulting from our experiences, whilst freely admitting that others may have had differing experiences, or that there may have been better ways to do things.

Geographically the CWP straddles the county and administrative boundaries between Gloucestershire, Wiltshire, Swindon Borough and Oxfordshire, creating its own challenges and opportunities for partnership working.

Is an Atlas Necessary and, if so, Where to Start?

It's worth considering if a printed atlas is necessary. Promoting the Odonata of a discrete area (county

or region) is a good thing, but the costs of a full printed atlas may be prohibitive. It's worthwhile considering online atlases, particularly if you hope to frequently update the mapping or expect new or migrant species in the future. It is also a good idea to plan the sections that you wish to include – for example, detailed species accounts are available in field guides, so how much do you want to say about each species?

You may want others to help you with your atlas. Depending on your local circumstances, help may be forthcoming from local natural history societies, local biological records centres (LRCs), local Wildlife Trusts and perhaps even local government. There are benefits to publishing in conjunction with a local natural history society or LRC – for



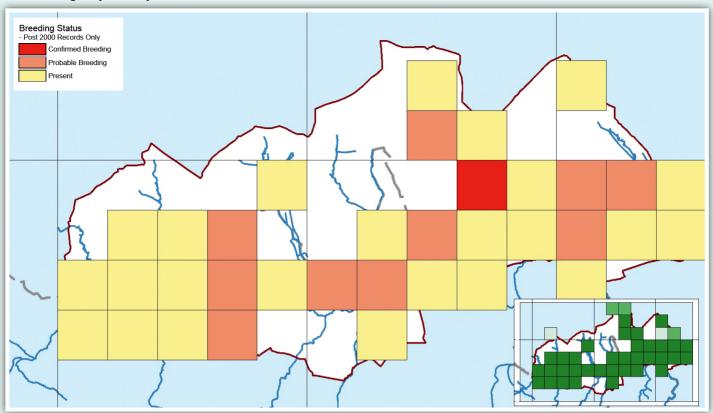


Figure 6. Beautiful Demoiselle *Calopteryx splendens*. Each species account has two maps. The main map presents the distribution by occupied tetrads (falling within the CWP Biodiversity Action Plan boundary) for each species, since 2000 only. Each tetrad indicates the breeding status recorded (yellow; Present, pink; Probable, red; Confirmed), with higher levels of confirmation taking precedence over lower levels. The second smaller map, inset, presents all historic data for each species, with dark green presenting post-2000 data, light green presenting 1991-1999 data and pale green indicating pre-1990 data. Since the extent of wetland habitat is generally increasing in the CWP, and the maturity of existing wetlands is increasing, it can be assumed that generally most species' range are increasing. It was the intention that presenting the historic data in this way, would highlight where species' range were decreasing. Map produced by the Wiltshire and Swindon Biological Records Centre WSBRC; contains Ordnance Survey data © Crown Copyright and database rights 2014.

example, relating to fundraising, or pre-existing relationships with publishers and printers. You may already be affiliated to such an organisation.

The CWP atlas was greatly supported by the Wiltshire and Swindon Biological Records Centre (WSBRC) (particularly with regard to data and production of maps) and also by Gloucestershire Naturalist's Society (especially with regards the publication process, recommending printers and offers of funding support); our location on the county boundary enabling us to draw on expertise in both counties!

Funding

Are there local sources of funding and resources that could support your publication, such as local Wildlife Trusts, LRCs and local natural history societies who may be able to help with small grants? Alternatively, are there private companies such as water companies, mineral companies, energy companies etc. that may wish to support your publication? We benefitted from

section 106 funding arising from two local developments which was administered by one of the district councils (which covered all costs relating to mapping), sponsorship by another development and funding support by local natural history societies.

Fundraising is easier for organisations that have charitable status, fundraising experience and expertise and have their finger on the pulse of local funding opportunities. Accessing the funds outlined above was largely possible because the fundraising was done by and through CWPT, a registered charity and with proven track record for local delivery.

Publishers and Printers

Investigate who publishes other local atlases and annual natural history reports. Some companies will assist you with the layouts and page designs if you supply the text, maps and images. Or you can do this yourself and simply pay for the printing and binding.

It's worth being clear, early in the process, how the publisher or printer will want to receive copy from you. If you are providing the finished publication for printing and binding, then it's worth agreeing on the best font, font size and formatting early in the project.

Software may be available to you to create the page designs, but again, be led by the publisher/printer as to their preferences and the options that will produce the best quality publication.

Leave yourself plenty of time to write the text and be sure to have some good proof-readers on hand. The more pedantic and critical the better!

Surveying and Compiling Data

Data contributed to the national atlas may be sufficient for the purposes of your local atlas but perhaps the atlas stimulated fresh recording activity? Perhaps it's worth doing extra surveys to engage with the new volunteers or to publish







Figures 7 and 8. Breeding was confirmed for the Hairy Dragonfly in the vice county 7 area of Cotswold Water Park. These photos are of the exuvia found on 7th May. Steve Covey.

more recent findings?

It's worth identifying additional sources of data and reviewing historical documents; such data may highlight changes in species distribution and abundance over time. It can add greater depth to the species accounts. Local natural history societies and local records centres can often help in this regard.

Steve Prentice helpfully combined the CWP data with data that BDS received from other observers and also some historic data in a single file comprising only verified data. This saved considerable time in collating data from a variety of sources.

Mapping – What to show? Which Software?

Will your maps show simple distribution of occupied squares, density of each species, or will you show evidence of breeding too? Will you present occupied 10km squares (typical for a county atlas) or perhaps use tetrads (2km x 2km squares) or monads (1km squares)?

Local natural history societies often use software such as DMAP (www.dmap.co.uk) whilst the local records centres also use advanced geographic information software such as MapInfo or ArcGIS. Such software will offer bespoke solutions but is more technically demanding to use

The mapping for the CWP atlas was produced in Mapinfo; we were able to contract WSBRC to produce the mapping thanks to some grant funding.

Finding Images

Perhaps you're lucky to have a source of images available in the recording area, through a local natural history society or Wildlife Trust, or indeed perhaps through BDS (who have a limited library and may be able to source particular images on request). Sourcing enough images with permission to use them, for all species, of adequate quality can be challenging, so plan ahead!

Positive Outcomes of the CWP Atlas Project

The atlas project has been a great success, stimulating recording activity, recruiting & training recorders and promoting dragonfly conservation. By promoting the survey of tetrads across the CWP we learned a lot about previously under-recorded squares, and a lot about sites we thought we knew well. Three of the atlas surveyors were also superb photographers, giving freely of their time and images for use in the atlas. The atlas surveys highlighted some exciting new locations to study in greater depth, particularly of Downy Emerald, whilst also recording the first Hairy Dragonflies in the CWP.

Lessons Learned the Hard Way!

One of our biggest hurdles was a delay in the publication of the CWP atlas as the publisher we planned to use retired, requiring us to find an alternative publisher somewhat urgently. Generally speaking, writing the atlas took considerably longer than planned largely because I changed jobs several times during 2012-2014 and other commitments were competing for the time. I would recommend from this experience that from the outset you set time frames with the publisher, allowing a bit of extra time for unforeseen hiccups. Don't under-estimate how much work is involved and draw on help and support to spread the work load.

It's worth considering how you will continue to engage with local atlas surveyors now that the national atlas has been completed, as recorders' momentum may have waned. Based on what atlas surveys achieved on your patch, what did you learn and what new survey priorities arose as a result? For example, whether it's of poorly-recorded sites, of gaps in species range or newly-colonising species, spread the word and give your recorders a bit of incentive to get back out in the field and continue making significant contributions to local and regional knowledge.

On the flip side, if everyone is looking to you to provide direction and incentive, what can you do to keep the project stimulating for yourself?! In the CWP the atlas surveys tended to focus upon the 150 waterbodies and associated ponds, but what is now clear is that, despite efforts at the time, we perhaps neglected the 200km of rivers and streams and the active quarries (which often support colonies of Scarce Blue-tailed Damselfly!). Much of this was a result of too few people covering a complex area but these priorities for future survey were addressed in part in 2014, resulting in discoveries of two new Scarce Blue-tailed Damselfly colonies, proving breeding of Hairy Dragonfly for the first time and finding yet more Downy Emerald breeding sites. There is still much to do!



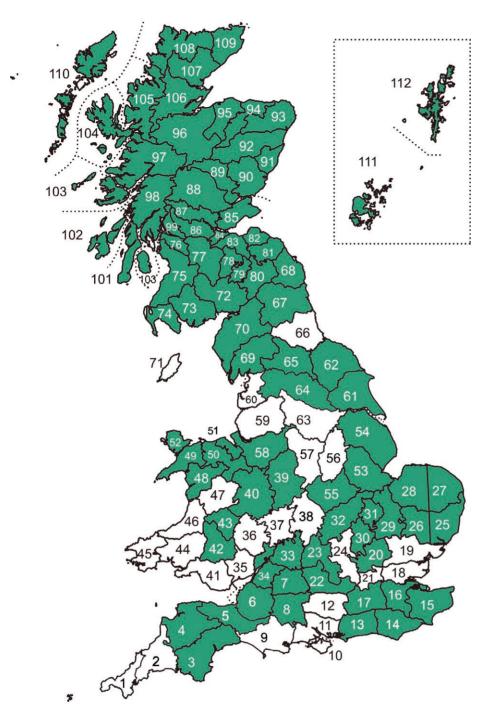


Figure 9. Vice county map. Vice Counties for which 2014 accounts have been written are coloured in green.

Vice County Reports

Devon – VC 3 & 4

Dave Smallshire

Dragonfly numbers were somewhat lower than expected, despite the generally excellent weather during the flight season. I visited Bovey Heathfield on 15 May, in the faint hope of finding evidence of emerging Vagrant Emperor *Anax ephippiger*, following the previous autumn's breeding attempt, but the recently-emerged **Emperor** *Anax imperator* was no Vagrant!

Hairy Dragonflies Brachytron pratense were seen as usual across Exminster Marshes. Others were along Exeter Canal as far as the Double Locks fishing ponds, where Red-eyed Damselfly Erythromma najas was also noted for the first time and a Red-veined Darter Sympetrum fonscolombii was seen on 15 June. Hairy Dragonflies were also seen at Squabmoor and at Ventiford Ponds, Bovey Heathfield and Little Bradley Ponds in the Bovey Basin, and breeding was proven at the Grand Western Canal and Bystock Reserve.

Red-eyed Damselfly persisted at Stover and Squabmoor, but larger numbers were seen along the Exeter and Grand Western Canals. Small Red-eyed Damselfly Erythromma viridulum spread significantly along Exeter Canal to reach the Double Locks, where 25 were counted in July. This species was also reported from established locations at Dawlish Warren (at least 20) and Lower Bruckland Ponds (the best showing for some years).

Small numbers of **Downy Emeralds** *Cordulia aenea* were seen at Little Bradley Ponds and Bystock, after exuviae had been found at both sites in early May. After the first teneral **Scarce Chasers** *Libellula fulva* were seen in mid-May, including one at the Old Sludge Beds DWT Reserve, small numbers were at Exminster Marshes, Grand Western Canal and in the Axe Valley at Colyford Bridge and Lower Bruckland Ponds.

Scarce Blue-tailed Damselflies Ischnura pumilio and Small Red Damselflies Ceriagrion tenellum were seen as usual at Smallhanger. The latter was also seen at Bystock and at its only known location in North Devon in an old lagoon at Meeth DWT Reserve. Scarce Bluetailed was also reported from its traditional sludge lagoon site at Cadover Bridge.

The only **Ruddy Darter** *Sympetrum sanguineum* record was on Lundy on 21 September - on this date and at this location it was clearly a migrant, apparently the first record for the island.

Many thanks to all those who sent in records and good luck in 2015.

Somerset – VC 5 & 6 Chris Iles

A reasonable dragonfly year in Somerset, with dragonflies seemingly unperturbed by the extensive flooding that affected large parts of the county in the early part of the year. In the mild conditions, species emerged early, if not on the whole as early as in 2014. Most species appeared to do fairly well; however the two **Demoiselles** seemed to be present in lower numbers than usual this year. A likely explanation is that





Figure 10. Scarce Chaser on the K&A canal at Devizes after a 5 year gap in records. Phil Smith.

the eggs that would have given rise to this year's adults would have been laid in the wet and cold "summer" of 2012

Nigel Cottle carried out a survey of the Bridgwater & Taunton Canal, which was last seriously explored in the 1950s. During the interval the canal has increased in species richness, mainly because a number of species have colonised the area. The Brown Hawker Aeshna grandis and Red-eved Damselfly Erythromma najas arrived in the area around 1990; the former has spread very slowly up the canal and the River Tone but has yet to reach the outskirts of Taunton, whereas the Red-eved Damselfly has moved faster; it has gone some little way beyond the town, marking the furthest west it has got in the county. The Small Red-eved Damselfly Erythromma viridulum reached the area even more recently, has spread even more rapidly and continues to do so. Records from Roughmoor and Norton Fitzwarren this year mark a new 'furthest west' in the county and it has now caught up its larger relative. This species has also reached the Bristol Channel coast at Berrow.

Online recording continues to change our ideas of the **Golden-ringed Dragonfly's** *Cordulegaster boltonii* distribution. Records have come in from its usual haunts in

the Quantocks and the hills around Taunton, but also a few from around Yeovil and from the woods along the Wiltshire border south of Frome. One photographed at Walton Moor in the Gordano valley was most likely a wanderer, perhaps from the south Wales hills just across the estuary.

Wiltshire – VC 7 and 8 Steve Covey

There were 2 main highlights in Wiltshire during 2014. The first can only be counted as a probable however! On 7th March, Geoff Cox was driving along the M4 near Swindon when a Hawker type dragonfly flew across the carriageway in front of his car! Although no positive ID could be made, it could only have been a **Vagrant Emperor** Hemianax ephippiger given the early date. A pity it couldn't be confirmed as it would have been a first for Wiltshire!!

The other highlight was the first confirmed breeding of **Hairy Dragonfly** in the VC7 section of Cotswold Water Park [CWP]. An exuvia was found on 5th May at Swillbrook Lakes and on 7th I visited the same spot and found one myself (see figures 7 and 8)! On 14th May Gareth Harris observed a patrolling male and an ovipositing female there – hopefully the population will now build...

The first [confirmed] Odonata sighting for the year was of the usual Large Red Damselfly Pyrrhosoma nymphula on 8th April by Damian Pinguey at Chippenham Pond. The last sighting [so far reported to me] was of a Common Darter Sympetrum striolatum on 18th November by Derek Jenkins at Cadnam Common Pond. Between those dates 28 species were seen! I added a new river [the Broadmead Brook] for **Beautiful Demoiselle** Calopteryx virgo. Scarce Chaser [after a 5 year gap] reappeared on the Caen Hill flight of the K&A canal at Devizes (figure 10).

After nil returns from Coate Water last year it was pleasing to see 100+ Small Red-eyed Damselfly (figure 11) back on the model boating lake!

Scarce Blue-tailed Damselfly was much reduced in numbers and locations on Salisbury Plain [due to the hot summer no doubt], but was found on new pits in CWP.

Despite the long hot summer most species appeared unaffected in either numbers or flight period. Maybe 2015 will show the results of ideal breeding conditions!

Grateful thanks, as always, to all recorders and photographers. There are more details about the 2014 season on my blog at: http://wiltshire-dragonfly-news.blogspot.co.uk

Sussex - VC 13 & 14 Fran Southgate

This year, the Arun and Rother Connections project (ARC) funded a professional survey of the Arun & Rother rivers for dragonflies and damselflies. With over 60 km of waterway surveyed, a total of 27 species were recorded, including 11 damselfly and 16 dragonfly species. The majority of these species are likely to have been breeding, although evidence of breeding was only observed for 16 species. This is one more breeding species than was noted in the original SSSI citation. Notable species present were Hairy Dragonfly, Common Club-tail Gomphus vulgatissimus, Scarce Chaser and Brilliant Emerald Somatochlora metallica, the first

three of these species showing strong breeding populations. Overall 443 unique dragonfly and damselfly records were submitted, totalling over 6,800 individual records, with over 670 records of copulating pairs, 230 records of pairs or lone females ovipositing, 992 identified males, 946 identified females, 119 tenerals and 3 exuviae recorded. The survey has added a significant amount to what we know about Odonata in the area, helping us to understand how to help protect and preserve these beautiful insects.

Having learnt of reports of Common Club-tails appearing as far down the catchment as Arundel where the river is tidal, we particularly wanted to learn more about how far and wide this distinctive dragonfly was distributed, and what habitats they were using. Dave Sadler carried out the surveys and has written a report of unique behaviour that he witnessed from this species, this report is in Dragonfly News 67.

Common Club-tails were only recorded on 3 far-separated reaches of the Arun and Rother rivers, but it is inconceivable that the species does not breed successfully at points in between and also beyond these sites (e.g. as far as Shopham Bridge on the River Rother). Thanks to the survey, our knowledge of the parts of the catchment where the Common Club-tail can be found along the river has greatly increased, and we hope to learn much more over the next few years about these unique dragonflies, and many of their counterparts.

To learn more about the ARC project and its work, go to: http://arunwesternstreams.org.uk/projects/arc

Kent - VC 15 & 16

John & Gill Brook

The 2014 season in Kent started on 9th April with the **Large Red Damselfly**. We had a warm, dry summer and a mild autumn. The last record of the year was the **Common Darter** on 29th November by Terry Dove.

During the year we surveyed the numerous ponds at the Rare Breeds Centre near Woodchurch and recorded 19 species. Notable records were one male Beautiful Demoiselle, which was the most easterly record for that species, two exuviae of the **Downy Emerald** and a pair of Scarce Emerald Damselflies Lestes dryas photographed in tandem and seen ovipositing on 1st July. There were further discoveries later in July of the Scarce Emerald by John Luck and Dave Chelmick when visiting old Marl Pit sites in the Kent Weald. At one site a mating pair was observed. The Scarce Emerald may be more widely distributed than originally thought. We hope to access more private land in 2015.

On private land at Cliffe we were informed that four Southern Migrant Hawkers Aeshna affinis were seen on 17th July and that the Southern **Emerald Damselfly** Lestes barbarus was in good numbers. For the first time since an exuviae of the Willow **Emerald Damselfly** *Lestes viridis* was found at Cliffe Marshes, an adult was seen and photographed at the Radar pond near Cliffe by Martin Fagence on 26th July. On 3rd July we discovered and photographed an immature Willow Emerald at Westbere (figure 12) while searching and finding our first Norfolk Hawker Anaciaeshna isosceles exuviae.

Norfolk Hawkers have been seen on the North Kent Marshes at a dyke with Water Soldier, where we hope to prove breeding.

Unfortunately, we did not see any adult **Dainty Damselflies** *Coenagrion scitulum* this year but some exuviae were collected from three ponds. Because the aquatic vegetation has disappeared from the ponds, possibly due to the heavy rains last winter, we are hoping the Dainty Damselflies found suitable alternative breeding sites.

We are looking forward to what 2015 will bring.

Surrey - VC 17

Surrey Biodiversity Information Centre

The County's dedicated recorders have been hard at work again this year. The Hampshire, Surrey and Berkshire Group alongside the relatively newly-formed Wealden Dragonfly Group have contributed hundreds of records in 2014. Special thanks must go to Surrey Wildlife Trust for hosting the Barossa National Dragonfly Meeting in July where Golden-ringed dragonflies were a treat on this very hot day.

The highlight of the recording year has undoubtedly been the discovery of the Willow Emerald. The recent colonist, previously restricted to Suffolk, Essex and Kent, made its appearance at Nutfield Marsh, East Surrey. The reserve, managed by Surrey Wildlife Trust, was visited by Simon Elson, volunteer ranger for the reserve, David Chelmick and John Luck in early September whereupon they discovered the species and its distinctive ovipositing scars in the trunks of the surrounding trees. A good account of the day can be found on the Wealden Dragonfly Group Blog (http://wealddragonflygroup.weebly. com/blog-2014). The inconspicuous nature of the species as well as its appearance so far from its known distribution indicates that it is undoubtedly under-recorded.

Also of note, are the large numbers of **Southern Hawkers** *Aeshna cyanea* reported in 2014. Bernard Miller, recorder for Shadbolt Park, Epsom



Figure 11. Small Red-eyed Damselfly, Coate Water after absence in 2013. Steve Covey.





Figure 12. Westbere dyke where Norfolk Hawker exuviae have been found. Gill Brook.

and Ewell, observed a large number of **Southern Hawker** exuviae and a much longer flight period with one seen egg laying in October during the very mild spell.

We would like to thank all of Surrey's recorders for their efforts in 2014 and hope that 2015 brings a good season for dragon spotting.

Hertfordshire VC 20

Roy Woodward

Good spring weather produced the first Large Red Damselfly sighting of 2014, on April 13th at Kings Mead, three weeks earlier than the earliest report in 2013. By the end of the month this species had been reported from various sites around the county, including garden ponds, and the first Broad-bodied Chaser Libellula depressa was on the wing at Patmore Heath on April 30th.

There was a new tetrad record for White-legged Damselfly Platycnemis pennipes, with a single male photographed in a Bengeo garden some distance from any known populations on June 27th. Hairy Dragonflies and, later in the season, Small Red-eyed Damselflies, again showed signs that they were continuing to spread to new sites within the county. With a series of early summer records again coming from Hilfield Park Reservoir it is possible that this species may have established a tentative foothold in Hertfordshire. Following sightings of

up to four males in June and early July, a single female **Red-veined Darter** seen at this private site on October 10th could conceivably have been a second generation emergent from eggs laid by an unseen female earlier in the year. Male **Lesser Emperors** Anax parthenope were seen at Hilfield Park Reservoir between June 7th and 12th, and on July 18th, and there was also one seen at Tyttenhanger GPs on June 25th.

The news that dominated the latter part of the season was the discovery of the county's first Willow Emerald Damselfly at Amwell Nature Reserve on September 3rd. Although not unexpected, as the species has been spreading towards Hertfordshire from the east, there have not yet been any records in adjacent parts of Essex. Over the next couple of weeks up to three individuals, including a tandem pair were observed, and later in the year scars found in young bank side tree growth showed that eggs had been laid. The area will be searched thoroughly for exuviae later in 2015 so that successful emergence can hopefully be confirmed.

The season ended at the very end of November with a **Common Darter** seen basking on a log at Panshanger Park on the 30th.

Berkshire – VC 22

Mike Turton

Berkshire was honoured this year by

visits from two Emperors – a **Lesser Emperor** recorded at Binfield on 26th June and a probable **Vagrant Emperor** on 27th February near Faringdon – the first record for the county.

The first Large Red Damselfly of the year was seen on 8th April – the earliest since 2011. In general. numbers of Large Red Damselfly, **Broad-bodied Chaser, Four-spotted** Chaser Libellula quadrimaculata and Hairy Dragonfly seem to have recovered from the poor springs in the past couple of years. However Downy Emerald and Common Clubtail appear to have had a poor year, although some of the downturn may be due to reductions in recorder cover. Common Club-tails were recorded from the usual breeding sites at Caversham, Reading and Goring and adults at Abingdon and Wolvercote (Oxford).

Both Hairy Dragonfly and Small Redeyed Damselfly continue to be found at new sites, including one in the north of the county at Abingdon.

There was just one **Red-veined Darter** reported this year from the usual site at Crookham Common.
No records of **Scarce Chaser** again though – none since the only county record in 2012. This species probably crosses the R. Blackwater into Berkshire more often than we think, but is just not being spotted.

Golden-ringed Dragonfly once again put in an appearance away from its normal heathland habitat with two records from Theale and one from the centre of Ascot. There were just two confirmed records of another heathland specialist, Common Hawker Aeshna juncea, both from Wildmoor.

There were seven records of **Beautiful Demoiselle** in the Crowthorne/Sandhurst area, mainly in the Wildmoor/Swinley Forest area; well away from their stronghold in the Kennet valley, but not the first time that they have been recorded here.

A big thank-you to the growing number of people who submit records each year.



Oxfordshire – VC 23 Stephen Burch

This is my first report on VC 23 having been the BDS VC recorder only since early 2014. As this is probably the first VC23 report for Darter in some years, it is worth starting by emphasising that VC23 excludes many of the best sites in the current Oxfordshire which are in VC 22, to the south of the Thames! Within VC23, the key site is the RSPB reserve at Otmoor, north of Oxford. This is a popular local birding site and is also attractive to dragonflies and their watchers in summer.

As many other VC reports no doubt note, 2014 was a generally good summer, apart from a cool August, although the numbers of Odonata recorded did not seem to fully match up to the largely favourable conditions. Unlike 2013, the season got off to a reasonably early start with the first record of a Large Red Damselfly on 17th April from Otmoor. Other notable early season records included good numbers of Hairy Dragonflies from Otmoor and the nearby Whitecross Green Wood. Downy Emerald is also now established as an early season Otmoor regular, with three sightings this year.

The undoubted highlight of 2014 was however the first confirmed county record of **Scarce Chaser** on 6 July again from Otmoor, which was well photographed. It is probable that this species arrived from the nearby expanding population in Northamptonshire. It is to be hoped that there are more records in future – it would be a very welcome arrival.

Oxfordshire is usually noted for Common Club-tails but this year there were no records from the VC23 bank of the Thames, although a couple were seen on the VC22 side. A further indication that riverine species may have been adversely affected by the record winter rainfall and resulting floods is that only a single record of White-legged Damselfly was received - from Goring Railway Bridge.

The generally warm and settled conditions in the autumn led to good number of **Migrant Hawkers** *Aeshna*

mixta. being seen, and the latest record was of a **Common Darter** from Otmoor on 1st November. In all, about 175 records of 21 species were received this year for VC 23.

Away from Otmoor, large parts of VC 23 are quite under-recorded but some areas may well contain a good variety and numbers of dragonflies, such as the flooded gravel pits around Standlake and Stanton Harcourt, from which only a few records were received in 2014. Perhaps a start to filling in some of these gaps can be made in 2015?

Suffolk - VC 25 & 26

Adrian Parr

The year 2014 was in many respects an unspectacular one in Suffolk. The normal species were thus largely seen in the normal places, and while nearby Norfolk did well for scarce migrants such as the Lesser Emperor, these succeeded in avoiding Suffolk itself. It was, however, still good to see that the recent range expansions of species such as **Scarce Chaser** within the county had not been reversed.

Despite the rather low-key year, two events stood out. Firstly, it was an excellent season for the **Migrant Hawker** in the county, with some very large counts being made, particularly in the last days of July and first days of August. Some 700 individuals were thus seen near the coast at Dunwich Forest on 30 July, and on the same date 50+ were noted further north at Halesworth, with the observer also noting large numbers during his

journey home from the town later that day. On 1 August some twenty five individuals were also present at Landguard Bird Observatory on the southeast Suffolk coast, this being the highest daily count of the season for this site. Although synchronous mass emergences of locally-bred individuals may have accounted for some of this mid-summer spectacle, the fact that events were most dramatic at or near the coast rather suggests that a substantial immigration of continental individuals also took place at the end of July. Evidence in support of this came from some other counties in southeast England, though it is perhaps slightly curious that such a dramatic event went almost unremarked upon at the time. Maybe people are now just too used to seeing lots of Migrant Hawkers!

The other prominent feature of the 2014 season was the large number of new site records for Willow **Emerald Damselfly** that were received, with the county clearly sharing in the species' sizeable range expansion that was noted during the year. Key sightings included those from Red Lodge in the very west of the county near the Cambridgeshire border, from Ickworth Park near Bury St Edmunds, from Knettishall Heath in the northwest of the county, and from Clare in the southwest. The species is thus now present right across Suffolk, whereas it has previously been scarce and very local in the west (VC26).

It will be interesting to see what events the coming years will bring. A new local Atlas is in preparation



Figure 13. Hairy dragonflies have spread to new sites in Hertfordshire, were recorded in good numbers at sites in Oxford and seem to be recovering after poor springs for the past couple of years in Berkshire. This female Hairy Dragonfly was one of the population that was rediscovered at Llangorse Lake, it was seen on 19th June 2014. Keith Noble.

on the back of fieldwork for the national Atlas, and hopefully this will serve to further stimulate interest in dragonflies within the county.

Norfolk – VC 27 & 28 Pam Taylor

The highlight of 2014 must be the number of new sites for Willow Emerald Damselfly. It was recorded for the first time at places as geographically diverse as Earsham, Filby, Upton and Thorpe. Several breeding colonies were also confirmed including those at Alderfen Broad, Burgh Common, Sparham Pools and How Hill.

Norfolk hosted a number of migrants. At least three **Lesser Emperors** were seen at Filby Broad

in June, including a pair in tandem ovipositing. There were other sightings in the Broads at Ormesby, East Ruston, Hickling and Horsey, as well as one on the coast at Burnham Overy Staithe. Red-veined Darters, including a pair, were seen at Kelling Water Meadows, with others at Beeston, Felbrigg, Winterton, Hempstead and Great Yarmouth. A wandering Black Darter Sympetrum danae was seen at Hickling in VC27; it's only known breeding colonies in Norfolk being in VC28.

The small colony of Scare Bluetailed Damselflies present near the east coast since 2012 persisted, but only a handful of males were reported. Finally, Southern Emerald Damselflies were once again seen at Winterton Dunes, the maximum

known being two females and an immature male. The frequency of records since the first discovery in 2003 is suggestive of a colony, but conclusive proof is still lacking.

Amongst the county's resident species, Norfolk Hawker continued to be seen in good numbers at all its usual broadland haunts and once again there were records from Thompson Water in VC28 where five were observed together. Keeled Skimmers Orthetrum coerulescens were reported from three sites in VC27, though the lack of records from VC28 does not necessarily indicate any absence of the species itself.

Recording coverage continues to be a problem in Norfolk, with many nature reserves and individuals failing to submit records. This has resulted in only one report for **Small Red Damselfly** in 2014 and none at all for Common Hawker.

Cambridgeshire and Huntingdonshire – VC 29 and 31

Val Perrin

With recording for the Atlas out of the way, 2014 saw the opportunity to indulge in some more varied recording and observational work on dragonflies. Although there were some damselfly sightings in the county towards the end of April, it was early May before flight periods really got under way. There were good numbers of **Azure** Coenagrion puella and Common Blue damselflies Enallagma cyathigerum in the sunny lee of a bank beside the road to the gravel works at Little Paxton on 9th May, for example. Hairy Dragonflies were starting to emerge and I had the unusual sighting of a female over a farmland butterfly transect I was walking at Barton, Cambs, a good way from water.

One curious observation I have made in old flooded gravel pit sites in the St Ives area is the distribution of Variable Coenagrion pulchellum, Azure and Common Blue damselflies. Contrary to predictions, Variable Damselfly is the commonest of the three species at West Brook, Fenstanton, whereas



Figure 14. Azure and Variable damselflies in Cambridgeshire. Val Perrin



at Marsh Lane GP, a short distance away, both this species and Azure Damselflies appear non-existent and Common Blue is present in very low numbers. All three species are present at Meadow Lane GP, only 1 mile distant from the other sites, but here Variable Damselfly is patchily distributed and does not occur over the whole site. It would be interesting to do some further work on this and see whether habitat structure or water chemistry, or some other factor are affecting these distributions as the age and habitats superficially look very similar.

With others, I was able to confirm the continued breeding of **Norfolk Hawker** at Hayling Lake (figure 15), Little Paxton, with ovipositing females and males patrolling over the water soldier beds there. Perhaps of even greater importance was the definitive observation of **Downy Emerald** at a private site south of Cambridge. As far as I am aware this is the only site in Cambs/ Hunts for the species, the nearest sites otherwise being in south Essex and Northamptonshire.

Bedfordshire - VC 30

David Anderson

After the publication of the excellent BDS Dragonfly Atlas, it is good to be able to report that there were no surprises or changes needed due to the 2014 records from Bedfordshire. All the usual 21 species were seen, most at the confirmed breeding level. The first record of the year was a Large Red Damselfly at the early date of the 16th March by Peter Almond, but no other records were made until the 8th April. The last record of the year was as always a Common Darter, but on the late date of the 3rd December by Steve Northwood. Prior to that date, Common Darters were seen on the 12th; 14th; 18th and 22nd November. This last date seem also to be the latest date recorded from the whole of Britain as listed on the BDS website! Bedfordshire did not seem to be visited by any Migrant or Colonising species this year. In 2014 no sign was found for Willow Emerald, a species we hoped would spread into the county. Also no record was made for Norfolk Hawker, a species seen just once



Figure 15. Norfolk Hawker at Hayling Lake, Little Paxton where they are breeding. Val Perrin.

in 2013, of what appeared to be a dragonfly maturing up in woodland some distant from its presumed breeding site in the adjacent county of Cambridgeshire. But the one exciting record during the year was of a single Variable Damselfly, seen and photographed by Dave Bull on the River Ivel near Sandy, the same location as another single of this species was seen in 2013. Access to the possible breeding site at a close-by private fishing lake, was not obtained during the year, but it remains a priority target for 2015. This single record brings the species total for the year up to 22, from 67 different people supplying a total of 1726 records. After 15 years of Recording Bedfordshire's dragonflies, I am passing the role over to the able hands of Rory Morrisey, who I am sure will do an excellent job. We wish him well.

Northamptonshire – VC 32 Mark Tyrrell

The season in Northants got off to a good start with Large Red Damselflies emerging from 16 April and a good emergence of Hairy Dragonflies on the 23rd. By the end of the month, 5 species were onthe-wing. There was then a bit of a slow down until mid-May where a sudden 3-day spell of warm weather prompted 6 species to appear including Scarce Chaser and Downy **Emerald**. Numbers of many species were up this year, with several thousand Banded Demoiselle Calopteryx splendens recorded at Wadenhoe, and an estimated 3000 emerging Common Blue Damselflies at Stanwick Lakes in early June. At their best County site, Twywell Hills & Dales, numbers of Broad-bodied **Chasers** exceeded expectations with 12 territorial males clashing

around a single shallow 4x5m pond. Of particular concern over previous years to me was one of the more accessible sites for Beautiful **Demoiselle.** The River Tove at Greens Norton flows through arable fields and is quite shaded in some sections. It passes underneath the road into Greens Norton over which a small bridge has been built. In recent years, the river has been dammed which had the effect of dramatically slowing water flow and allowing silt to build up. As a result, I have witnessed a decline in numbers here. A visit in 2013 found that the dam had been removed and water was flowing freely again. I was relieved to find that numbers recorded in 2014 were back to the expected level. This species, while not showing too much in the way of expansion this year, did make the move across the border into Leicestershire so perhaps it is reaching the extent of its range in Northamptonshire, although I will never assume this is the case as the rapid expansion shown during the last 8 years indicates that Beautiful Demoiselles in Northants are very restless and regularly on the move. I hope to hear of more sightings on the River Welland which forms the boundary between Northants and Leicestershire. A warm autumn followed and prompted a late emergence of Common Blue Damselflies and I had high hopes of a late end to the season, however this was not to be the case and the last **Darter** was seen on 1 November. which is about two weeks earlier than in recent years.

Gloucestershire – VC 33 & 34

Ingrid Twissell

Although the spring was very prolonged, only a few species were





Figure 16. Lesser Emperor at Draycote Water, VC38 on 7th July. Steve Batt.

recorded in April, namely Large Red Damselfly, Common Blue Damselfly, Azure Damselfly, Four-spotted Chaser and Downy Emerald.

Hairy Dragonfly was confirmed at Coombe Hill NR in May after a probable sighting of a male in 2013, and was again present at the following locations: Walmore Common - three males in May, Woodchester Park - four in June, and at the stronghold of the species at WWT Slimbridge.

Scarce Chaser had a good year at The Mythe, Tewkesbury, when 11 exuviae were collected in May with the same number of adults also seen. At Twyning, the best site in the county, 60+ adults were counted with mating pairs and single females also present.

Downy Emerald – low numbers only at Whelford NR and at another location in the Cotswold Water Park, and only one each at a couple of locations in the Forest of Dean. It seemed to be a poor year, although breeding was confirmed at sites in the CWP.

Common Club-tail – a very poor year – possibly due to floods in the winter and spring. There was only one present on two occasions in May at The Mythe.

Keeled Skimmer – one male was seen on two occasions at Woorgreens pondscape, Forest of Dean, at the end of July.

Black Darter was at two locations in the Forest of Dean – one in July and 2 males in September at Woorgreens pondscape, and 3+ in September at Edgehills. After the large population at Edgehills several years ago, there is now a sharp decline in sightings over the last few years.

Scarce Blue-tailed Damselfly was seen at a few scattered locations, the largest numbers being in the CWP – 14 in June and 7 in July at a new location, with probable breeding. Sightings occurred in the Forest of Dean – one male in June at Laymoor Quag, and 3 in June and one in July at Woorgreens pondscape. One male was sighted at Western Approaches, Severn Beach, in May, where they were discovered in 2013.

Small Red-eyed Damselfly was present at the stronghold in the county, The Mythe, with only one in July and 18 in August, but I'm sure the population will be higher in 2015. After one being present in August 2006, no sightings have occurred at WWT Slimbridge until 1 possibly 2 were spotted in July 2014, with 6 present in August. At the Barnwood Flood Alleviation/Storage site near Gloucester, when one male was first seen in 2013, 10 were present in August including a mating pair and a single female. I'm hoping this small breeding population will increase in the coming years.

Altogether, 28 species were recorded in the county in 2014, with the last recorded sightings being **Southern Hawker** on 3rd November, and **Common Darter** on 9th November.

Warwickshire - VC 39

Kay and Peter Reeve

It was very pleasing to receive our highest annual number of records for the county in 2014 - a total of 1623 records. It follows about ten years of being motivated to collect records for the new atlas – it is a pleasant surprise.

There was one notable vagrant sighted during the year, the **Lesser**

Emperor. Steve Batt snapped this at Draycote Water 7 July (figure 16). It was only perched for a few seconds but it was sufficient for Steve to get this grab shot. The species has now been recorded in the county in 2011, 2013 and 2014.

Des Jennings made several very interesting sightings of **Beautiful Demoiselle** on the River Cole. This river rises in the centre of Birmingham and runs south more or less along the VC38/VC37 border. Des's sightings are well into the suburban area of Solihull and are the first records noted for the area since 1900. A likely factor in its reappearance is improved water quality.

The Scarce Blue-tailed Damselfly is still at its one known breeding site in VC38. Unfortunately, the quarry has ceased production and appropriate breeding habitat is becoming more and more scarce. The long term outlook for the population seems bleak.

Hairy Dragonfly and Scarce Chaser were both recorded in numbers but, as reported in last year's Darter, the status of Club-tailed Dragonfly on the Avon is worrying. Only one adult was seen on the river in 2014. However, a single exuvia found by the river proves it still breeds in the county.

More detail of dragonflies in Warwickshire for 2014 is to be found on the county website, see http://warwickshire-dragonflies.org.uk/wdg/news_2014.php.

Shropshire – VC 40

Sue McLamb

Thank you to all Shropshire dragonfly enthusiasts who kept an eye on the 2014 flight season. Once again over 60 recorders contributed to an amazing total of nearly 1300 records- and even a number of exuvial records which is superb! Many people also sent sightings and some stunning photos to the new Shropshire Dragonfly Watch blog. It made a real difference to know how the season was shaping up as it actually happened and the blog will definitely be up and running again once dragonflies are on the wing



in April...I await the first sighting! http://shropshire-dragonfly-watch. blogspot.co.uk

A total of 27 species were recorded in 2014 comprising 16 dragonfly and 11 damselfly species. Unsurprisingly we saw no return of the Vagrant Emperor found in Nov 2013 at Muxton Marsh and another rare migrant the Red-veined Darter also remained elusive - last recorded in Shropshire at Venus Pool in 2012. Sadly there were no records either of Hairy Dragonfly. This was recorded at Whixall Moss in 2013 representing the 3rd sighting ever in the county, but despite many eyes on the lookout it was not to be seen.

On a brighter note **Scarce Blue-tailed Damselfly** (unrecorded in 2013) was recorded at Titterstone Clee Hill by J. Kernohan where both a male and female were seen. Interestingly a historic record (and photograph) was also received showing a female form *aurantiaca* at Langleyfields in Telford in 2008.

Though directly influenced by recorder effort, the first recorded sightings of nearly all dragonfly and damselfly species were significantly earlier than in 2013. In many cases species were recorded a month earlier in 2014. The flight season started with Large Red Damselfly on April 15th and White-faced Darter Leucorhrinia dubia had its earliest ever Shropshire record made by B. Smith on April 28th. No obvious shifts however were seen in the last



Figure 17. Variable Damselfly were in their thousands at Llangorse Lake. Keith Noble.

recorded sightings and **Common Darter** as usual was the last species recorded on 4th November, 2014.

Breconshire VC 42

Keith Noble

Llangorse Lake provided a big surprise with the reappearance of Hairy Dragonfly (figures 13 and 18). fifty years after mention in the first newsletter of Brecknock Wildlife Trust. In mid-June I found a few in my favourite rough field by the southern edge of the Lake and sent accounts and photos to the Trust's anniversary magazine and the BDS website. A month earlier there were thousands of Variable Damselflies (figure 17) in that damp pasture, and in the autumn it was as usual the favourite area for Migrant Hawkers; Llangorse is Variable's outpost in Mid-Wales and a top site for the spreading Hawker. Shallow floods at the west end produced the second sighting here of Scarce Blue-tailed Damselfly and then the first Brown Hawker, taking the Lake's species total to twenty.

Mynydd Illtyd's swamp, stream and shallow pools hold sixteen species, notably a strong population of Scarce Blue-tailed Damselfly. On some sunny days the largest pool was buzzing with at least a hundred Four-spotted Chasers, plus Common Hawkers, Common and Black **Darters** and **Emerald Damselflies** Lestes sponsa. At ponds near Sarnau north of Brecon, ten species included hundreds of the common damselflies. Sixty Keeled Skimmers with pairs ovipositing were counted at Marchnant Quarry near the Elan Valley reservoirs in VC42's northwest corner.

Coverage of the county is patchy but the total number of records rose again to 256. I spoke about dragonflies at the Recorders' Day of the Biodiversity Information Service, our local records centre, and emailed news and photos to recorders and other interested people through the season. Claire Install paid a welcome winter visit to Llangorse Lake and Mynydd Illtyd and gave conservation advice. Brecon Beacons National Park is taking account of dragonflies in its current review of management plans.



Figure 18. The Hairy Dragonfly was rediscovered at Llangorse after a 50 year absence in the records. Keith Noble.

Radnorshire - VC 43

Bob Dennison

The 2014 Radnorshire dragonfly recording effort resulted in 487 records from 17 contributors. As usual, the biggest contributors were dragonfly stalwarts, Dick Eastwood and Ian Standen, amassing two thirds of Vice County 43 records between them. The Radnorshire flight season began and finished at a meadow pond near Clyro, bookended on the 13th April with the emergence of a Large Red Damselfly and on the 14th November with the last remaining Common Darter.

With the exception of Ruddy Darter which was not seen in 2014, the generally benign season featured all of Radnorshire's regularly recorded species, comprising 13 dragonfly and 9 damselfly species. No new species to the Vice County were recorded.

Following similar comments in my 2013 season report, it remains concerning that sightings of our four 'river specialists' continued to be few and far between. Although Beautiful Demoiselle was recorded on 11 occasions by 5 recorders, there were only three records for Banded Demoiselle, two for Common Clubtail and only a single record for White-legged Damselfly.

In the context of the rather more favourable picture for these species elsewhere in the country, Radnorshire's apparent bucking of





Figure 19. A blue colour form female Southern Hawker at Llangorse on 12.8.14 Keith Noble.

the trend is rather worrying and clearly merits further investigation and research.

On a more positive note, **Scarce Blue-tailed Damselfly** – which does not feature every year in our Vice
County list – turned up in 2 locations. In late June, adults were recorded on Maelienydd - an upland site which is one of eight locations I have proposed to be promoted on the BDS website as a 'Good place to see Dragonflies in Radnorshire'.

From early June to late July, at his recently extended pond, Dick Eastwood made repeated sightings of **Scarce Blue-tailed Damselflies** - often several at a time. His observations peaked on 17th June with an exceptional 15 adults consisting of 8 males, 4 females and



Figure 20. Scarce Blue-tailed Damselfly. Dick Eastwood.

3 newly-emerged tenerals (figure 20).

North Wales – VC 48 – 52 Allan Brandon

There has been little new to report for North Wales over the last two years and records sent in have certainly dropped off after the publication of the new atlas. Only 25 people sent in records for the 2014 flight season compared to 80 at the peak of recording in 2012! My own recording also fell during this period.

As we may learn from the new British and Irish atlas, the Blacktailed Skimmer Orthetrum cancellatum has been extending its range northwards and westwards and first seems to have entered North Wales at the turn of the millennium. Since then it has been consolidating its territory and has been recorded from scattered sites across the region, but never in huge numbers and more often than not as single exploratory males. It still turns up at new localities, particularly around the coast, where it seems to tolerate slightly brackish conditions. Steve Stansfield reports that Bardsey Island's first individual was observed on the 23rd June 2014 and captured on camera by Ben Porter. The photo of the male is far below Ben's usual extremely high standards but the uniqueness of the occurrence didn't go without notice and Ben did the right thing in firing off a shot for the record. Steve also noted that there were far more

records of **Emperors** on Bardsey this year than in previously years. On the 24th July, Rhion Pritchard also saw a single male **Black-tailed Skimmer** at the coastal Morfa Madryn reserve, Llanfairfechan, another new locality for the species.

The most noteworthy North Wales record for 2014 was the discovery of a new site in Snowdonia area for the Scarce Blue-tailed Damselfly. Away from Anglesey and The Lleyn, there were only two known populations of this species in North Wales, both within the Snowdonia National Park. The best known, discovered by Mike Howe in 1994, is at Llyn Tyn y Mynydd, part of NWWT's Cors Bodgynydd reserve in the Gwyddyr Forest. The other is at a small pond in Lordship Forest, Llanuwchllyn, mid-Merionethshire, found serendipitously in 2009 by Andrew Graham while looking for Variable Damselfly. Now there is a third, notified to me by Simon Hugheston-Roberts. On the 5th July Simon and Les Colley visited heathland Swch Maes Gwyn, along the Nebo - Pentrefoelas road. The flat, peatfilled glacial lake hollow is within the Mynydd Hiraethog SSSI and lies just outside the Snowdonia National Park boundary. Simon states that Les confirmed pumilio by netting the only two males (one in tandem with a female) seen along 'old field drains' at the edge of the bog [SH85245379] but unfortunately no photos were taken. I managed a visit to the site on the 28th July. The roadside site turned out to comprise shallow, branching, meandering runnels with Potamogeton, cutting through the peat bog that held cotton grass, Sphagnum, sundew and cranberry (figure 22). The area also provides magnificent views of Snowdonia to the west.

The runnels had plenty of dragonfly activity with Emerald Damselfly, Keeled Skimmer, Black Darter and Common Hawker. There were numerous ovipositing females of the latter. One male Common Darter was unexpectedly seen in this habitat. On the point of ending a prolonged search I was rewarded with one male Scarce Blue-tailed Damselfly. It was flying quite quickly and for good distances along the runnels, occasionally resting on vegetation.



It's flight seemed purposeful and my guess is that it was looking for a mate, probably forlornly so late in the flight season.

These three populations are extremely isolated and there surely must be many overlooked sites in intervening areas across Snowdonia since the Swch Maes Gwyn habitat is common in the area. What is surprising is that more sites didn't turn up in the last few years during the intensive surveys for the new atlas.

Over the last two years Claire Install and I have been conducting dragonfly courses throughout Wales as part of the Natural Resources Wales grant to BDS. The penultimate course was held at Pensychnant on the 23rd July attended by 17 participants. Like the others, and judging by the feedback, it was a great success and we were blessed with an idyllic sunny afternoon to explore for dragonflies at Gwern Engen bog lake following the usual powerpoint course (figure 21).

We did our last course on the 30th July at Dinefwr, Llandeilo, with 18 enthusiasts, mainly from the National Trust, the Gwent and Camarthenshire wildlife trusts and RSPB. We had an equally sunny afternoon to explore the lakes and oxbows of the Afon Towy floodplain.

Lincolnshire – VC 53 and 54 Nick Tribe

Whisby Nature Park hosted a male **Lesser Emperor** from the 18th June (Grahame Hopwood) until the 20th June (Hugh Middleton). This is the second time this site has hosted this migrant species, the previous occasion being in July 2006.

A male **Red-veined Darter** was seen at RPSB Frampton Marsh on July 4th (Trisha Thompson *et al*), an unsexed individual was seen on 4th August (RSPB) and a female was seen on 5th August (Trisha Thompson). This site is probably the most reliable place to find this species in Lincolnshire and it is interesting to speculate whether the shallow, sparsely vegetated and slightly saline waterbodies host a breeding population.

The Bioblitz at Lincolnshire Wildlife



Figure 21. Demonstrating the diagnostic parts of a Common Hawker at Gwern Engen on 23rd July 2014 with Claire Install. Claire Install.

Trust's Willow Tree Fen on 20th and 21st June yielded an impressive 16 species including **Variable Damselfly** (Brian Hedley, Trisha Thompson and Dave Mainwaring).

Phil Lee successfully followed up old reports of **Variable Damselfly** beside the River Idle on the Nottinghamshire/Lincolnshire border on 25th June. Phil found three more at the same site on 8th July.

In my Darter article of 2013 I speculated about the impact of the storm surge of 5th/6th December

2013. I visited Gibraltar Point NNR on 27th July and noted 8 species. This was a poor count for a day-list for this site at this time of year and the numbers observed were low. A large and obvious population of **Small Red-eyed Damselfly** has been a conspicuous feature of this site for several years and I saw none on my

Leicestershire and Rutland – VC 55

Ian Merrill

2014 has to rate as something of an



Figure 22. Swch Maes Scarce Blue-tailed Damselfly runnels, 28.07.14. Notice the close proximity to the road. Allan Brandon.





Figure 23. Lower Fish Pond, Gilling Woods, the most northerly known site for the Red-eyed Damselfly. Keith Gittens.

historic year for Odonata recording in VC55; after waiting eight years for a new VC55 colonist from the south, in 2014 two came along, just like buses! I was lucky enough to find the first, a single male **Beautiful Demoiselle** on the upper reaches of the River Welland. My search, conducted on of 25th June, followed a tip-off from across the border in Northants, where the species has been spreading north and westwards in recent times.

Not to be outdone, Matthew Billings had also been searching likely spots and on 6th July 2014 he found another male **Beautiful Demoiselle**, this time on the River Avon. Sadly neither insect hung around for more than a day, however is seems likely that they are the vanguard of the continuing northward push of this species and I look forward to further records in 2015.

Still revelling in the excitement of a new addition to the Counties' list of Odonata, I received extremely interesting email from Chris Park. Chris is very familiar with **Scarce Chaser**, and was therefore confident of his identification of no less than three individuals of this species which he saw in the east of VC55. At the time, however, Chris did not realise that they constituted the

first three records for the Counties! The records came from three rather well-dispersed sites, in the form of Rutland Water, the River Gwash and the River Welland; all records were of males, spread though the month of July.

Scarce Chaser has expanded its range rapidly through Northamptonshire, moving 50 km westwards along the River Nene between 2005 and 2013. The move from the River Nene to the River Welland is a relatively short hop, although extensive surveys of the lower reaches of the Welland on the VC55 boundary in 2010 failed to produce any Scarce Chaser records. It must therefore be assumed that the species moved onto the River Welland over the last four years; again, I look forward to a flurry of additional atlas dots for this species in 2015!

Cheshire – VC 58

David Kitching

Unlike the previous year when there were no April records, there were three separate sightings of Large Red Damselflies on the 15th and by the end of the month five species had been seen. This included a teneral Common Darter that Rob McHale found at Anderton Nature

Park on the 27th. After no records of **Beautiful Demoiselle** in 2013 it was good to receive records from Martin Pennell of good numbers on the Wybunbury Brook and at Batherton Hall on the Weaver.

The Hairy Dragonfly continues to be found in good numbers and also to extend its range with the county. Notable records were an ovipositing female in May on Chester Meadows and another female on Frodsham Marsh in June. Meanwhile in the White-faced Darter reintroduction project several insects were observed emerging and hopes remain high that this species will soon be a permanent resident once again.

Presence of White-legged Damselfly on the Llangollen Canal was again confirmed when Martin Pennell found 8 adults including a tandem pair at Swanley in early August. It would be well worth a careful search along this canal at the end of July in 2015.

A complete surprise was a record of **Variable Damselflies** emerging at a garden pond in Middlewich. Initial scepticism was confounded by photographs of the insects that clearly were this species. Thanks to Jo Hards for submitting this record via the BDS website.

The last sightings of the year came with Common Darter in early November and Southern Hawker at the end of October. When I first started recording in the early 1980s a record of this latter species on 1st October was a notable occurrence and yet we now see it right to the end of the month and some years even in November. Another species that appears to be extending its flight period is the Broad-bodied Chaser which was observed twice in the first week of August.

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

South-east Yorkshire - VC 61Paul Ashton

Now that the National Atlas has been published it was great to see



records still flowing in, with some new observers also sending them in. One of the areas benefitting from these records is Holderness, where recording effort has been low. These new records resulted in two new sites along the coast for **Small Red-eyed Damselfly** at Tunstall and Grimston. It's great to see this species finally spread a little further in the north of its range after being fairly sedentary for several years.

Hairy Dragonfly has also turned up at a couple of new sites, with records from Hornsea Mere on the coast and Paull Holme Strays along the Humber Estuary. The Yorkshire Branch of the British Dragonfly Society also held a successful field trip to Leven Canal to see this species, its stronghold in the VC, where a walk along the three mile stretch of the canal can produce numbers of individuals in to three figures.

On the migrant front, **Red-veined Darter** had a better year, with several present at Clubley's Scrape at Spurn in June, with ovipositing females observed. The following month individuals were also noted further along the east coast at Flamborough and Filey.

To keep up to date with what's happening in Yorkshire then visit our website at www. yorkshiredragonflies.org.uk, or follow us on our Facebook page

at www.facebook.com/groups/ yorkshiredragonflies

Finally a thank you to everyone that has contributed to the recording effort for the National Atlas, a magnificent piece of work by all those involved, and to those that continue to record, or have started to contribute during 2014.

North-west Yorkshire VC64

Tom Hubball

Judging by the amount of records I have received so far, 2014 appears to have been a poor year for dragonflies in my area. Although all of the usual species have been recorded, numbers are well down, however, that is hardly surprising given the cold winters we've had in the past few years.

Golden-ringed Dragonfly is holding its own in its strongholds around Timble and Cross of Greet but I'm sure that there are undiscovered populations on the moors surrounding the limestone that dominates the central belt of VC64. so if anyone is in these types of habitat, please do keep a watchful eye out for them on the becks that cut across the landscape. I would also like to make a plea to all dragonfly recorders visiting the area between Leeds, Cawood, Selby and Goole to send any dragonfly records to me, as I rarely get the chance

to venture over that way at the moment (see map figure 24).

Once again, myself and other members of the Yorkshire Branch of the BDS will be attending the Royal Entomological Society Insect Festival at York Museum Gardens on Sunday 5th July. There will be all sorts of things to see and do, especially for children, so please do come along.

Finally, thanks must go to all individuals and organisations that have provide me with the bulk of my records. Without your dedication, assistance and willingness to share your records, our knowledge of dragonfly distribution would be in a far worse position. Thank you.

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

Keith Gittens

With a busy events programme and fingers crossed it was hoped 2014 would be a good year and it was not to disappoint. The year started early for this part of England with a first record for Large red Damselfly on the 18th April from Strensall Common. There were some good days for getting out recording in May and June and these brought the surprise find of Red-eyed Damselfly at not one but two sites in VC62. This is a new species for the VC, pushing its national range some 20 miles further north. Both sites are



Figure 24. Please could any dragonfly recorders visiting the area between Leeds, Cawood, Selby and Goole send any dragonfly records to Tom Hubball?





Figure 25. Large pool on Bowness Moss, South Solway, Cumbria; species include Emperor, Common Hawker, Black Darter. David Clarke.

regularly recorded but the number of individuals indicates the species had bred previously. The most northerly site is the old fishponds owned by Ampleforth College at Gilling Woods north of York (figure 23).

The second half of the year also brought some surprises with Small Red-eyed Damselfly putting in an appearance in VC62 after an absence of 3 years, it first being discovered in the VC in 2009. The records came mainly from near Scarborough, where it had previously been recorded, but an individual male was also recorded at Strensall Common (figure 2) on one of the very same ponds that Red-eyed Damselfly had been discovered earlier in the year.

Events and ID sessions were successful and brought in some new records and recorders particularly from the North Yorkshire Moors round Whitby. It was great to get some enthusiastic new members in this previously under recorded corner of the VC. A big thank you must go to them.

The news all seems to come from VC62 and this is partly because records from VC65 are few and far between, so a plea for anyone who lives or visits the northerly part of the Yorkshire Dales to keep a look out and send me some records!!

South and North Northumberland – VC 67 & 68

Michael Gardner

Hello, just a few lines to introduce myself as the new North and South Northumberland Recorder. I have been a BDS member since 2005. I joined after a rapid baptism into the world of dragonflies as I prepared to put in what became over 100 hours of fieldwork investigating emergence patterns in two small bomb crater ponds in Epping Forest for a diploma project. This led to a love of dragonflies and a general interest in freshwater ecology, and eventually a job as a biologist and a relatively recent move here to the north-east.

I am keen to improve the knowledge of where the best breeding habitats are for each species, so will personally put much effort into increasing larval and exuvial data during the coming season. I am very much looking forward to receiving records, hopefully helping to increase the number of observations submitted, and also meeting any committed dragonfly watchers in the area.

Cumbria – VC 69 & 70 David Clarke

A mild winter was followed by good, long, spells of fair weather in summer (for the second year

running!). This produced near drought conditions, and was followed by a second warm period in later autumn. The effects on dragonflies and damselflies were surprisingly unspectacular and did not result in any really notable records or especially high numbers. If anything, flight periods seemed to truncate in response to the good conditions, with some species - especially Large Red Damselfly - disappearing earlier than normal at many sites, though we must presume breeding success will have been high. There were no records of significant local dispersals, or of vagrant species.

Records (some still to come in) have been, as usual, patchy, with most coming from sites in the lowlands. A good list from North Walney (SD17), a key southern coastal location, has been a welcome addition, since it is potentially a useful 'barometer' of northward movements.

Of species still relatively new or colonising, Migrant Hawkers were, once again, few and mainly coastal. Even at Walney, numbers were small. Up to six were seen on a north-west coast site in mid-September; in the Solway area (NY25) the occasional sightings were not until late in that month, both suggestive of migratory movements rather than on-site breeding. **Broad-bodied Chasers** were again recorded at several sites in the south of the county and are clearly establishing - though not yet in the northern half of the area. Blacktailed Skimmers seem much tardier to advance: two were present at North Walney. Ruddy Darters have been increasingly elusive after their initial surge back in the 1990s and no records were received in 2014.

Of the more established species, a Common Hawker emergence at a Lake District tarn at 700 metres was interesting for its altitude (NY41). Southern Hawker reports were only a quarter of the frequency of the previous species. As ever, Brown Hawkers remained confined to the southern coastal fringes of VC69, with no records more than 10km inland. Emperors continue to show a presence at both ends of the county and are the most obviously successful of those species



which have arrived in recent years. Immature **Keeled Skimmers** seen beside the River Rothay, Grasmere (NY30) suggests a possible new or overlooked breeding site for this evidently increasing species.

The good weather once again coincided nicely with the flight period of the White-faced Darter. At the Foulshaw Moss reintroduction site (SD48), exuvia monitoring proved an emergence of at least 250 adults, much less than 2013, but the alternate-year generations of this species (given a 2-year life cycle) cannot be expected to perform equally. Mating was observed at Foulshaw again this year and the good weather should have encouraged oviposition. The minor site on Claife Heights, Windermere (SD39), produced one exuvia and no sightings of adults. The project to date has been written up for the BDS Journal and appeared in volume 30 (2), October 2014.

Finally, intriguing unconfirmed records, from trusted sources, from a site in the extreme south of county (SD38) were of an unidentified 'hawker' on 13 May, and a probable White-faced Darter in mid-June. Both may have interesting implications for future years. A similarly uncertain report concerns Banded Demoiselle from the lower River Esk (SD19): if proved this would be a significant new area for the south of the county.

Scotland – VC 72 – 112 Pat Batty

It has been an eventful year for dragonflies in Scotland. Volunteers have been active and have discovered some interesting new sites.

The **Beautiful Demoiselle** had a very good year new sites were found on Skye, Mull and Ardnamurchan. The **Keeled Skimmer** increased its range with records from new hectads in Ardmamurchan, Mull and Morven.

There were several new sites and new hectads for the **Northern Emerald** *Somatochlora arctica* with records from Mull (Barbara and Richard Mearns and Stephanie Cope)
Ardnamurachan (Liz MacDonald)

and in Argyll. Ruary MacKenzie Dodds and Kari de Koenigswarter again found larvae at the emergence site in Glen Lyon.

New breeding sites have been found for the Northern Damselfly Coenagrion hastulatum in Perthshire near Logierait (Ron Youngman and Lynnette Borradaile), on Deeside from in the Braemar area and in Glen Tanar (Juliette Dinning). Ron has had a positive response from landowners concerning management for this species in his area and the Forestry Commission has done work at a site that was infilling with vegetation. In Strathspey a larva was found at Uath Lochs. Northern Damselfly larvae were transferred from the pond on the Tesco development site to the Uath lochs. However the original pond remains intact as work on the new store here has been cancelled.

A new breeding site was discovered for **White-faced Darter** in bog pools amongst the forestry above Loch Awe. This is the most southerly site in Scotland to date. Carl Farmer took a group to see this species on a moss north of Oban and found it in an additional pool. Colin Hall also found a new breeding site in Moray.

There were few sightings of the **Azure Hawker** *Aeshna caerulea* in 2014. Two adults were seen at the Silver Flowes in Dumfries-shire, the first for several years and two exuviae found above Loch Rannoch. Peter Vandome found several larvae in the Loch Maree area at Silver Flowes and Bridge of Grudie.

The **Downy Emerald** has been photographed at Loch Bran (Andy & Margaret Scott) the first sighting in this area, though it is established in Glen Affric west of Loch Ness. New **Brilliant Emerald** sites were discovered above Loch Awe.

New sites for the rare species are being found nearly every year in Scotland which illustrates the importance of recording here and that the full distribution of our rare species is not known.

There have been fewer records for southern species. There was only one record for the **Emperor Dragonfly** from Dumfries and Galloway, and

none for the Broad-bodied Chaser and Migrant Hawker to date.

Our knowledge of the distribution of species in Scotland continues to grow thanks to all our enthusiastic volunteers. Larry Templeton and Andy Scott targeted under recorded squares in the north and have added a lot of new records. To date about 50 volunteers have contributed 3500 records and spending over 500 days recording. Thanks everyone.

Daniele Muir the new part-time Scottish Officer despite only being in post for a year has done a tremendous amount work for dragonflies in Scotland; running training courses, enthusing volunteers, organising events and preparing educational and display material. She organised a very successful, well attended Scottish Conference in April and has also established dragonfly 'Hotspots' in the central Scotland. Hotspots include Crombie Park in Dundee and Greenhead Moss near Wishaw where recording transects of Dennis Kennedy and Robert J Smith at sites provided the information needed.

As a result of the Atlas we have been looking at Key / Priority sites. With over six hundred monads in Scotland containing rare species it is a large task to identify sites that meet the criteria then prioritise. A lot of work is needed to revisit sites, update records and prove breeding, also to contact and liaise with landowners.

Logierait Curling Pond and Castle Fraser ponds have become the first Key or Priority Sites for the Northern Damselfly. Newmains Farm ponds are also a Key Site thanks to the efforts of David Graham. Seventeen species have been recorded here, the most in Scotland. Some are casual visitors but the Emperor Dragonfly and the Broad-bodied Chaser have bred here.

Hopefully the bid to SNH for funding for the Scottish Officer to continue next year will be successful.

The latest development is the planned establishment of a Scottish Committee to co-ordinate work in Scotland.



Dragonfly Trends in Scotland

Brian Walker

A key BDS objective is to develop methods for monitoring trends in dragonfly populations. The aim is to help us to establish conservation priorities. This objective aligns with the objectives of the national conservation bodies. In the last edition of Darter I set out some preliminary work on trends in Wales and in this article I report on similar work in relation to Scotland. The approach adopted is to look at the proportion of "recording visits" during which a species is recorded; a visit being defined as all records for a 10km grid square (hectad) on a particular date. To avoid the result being distorted by variation in the number of visits at times when a particular species is unlikely to be flying I have considered only visits during the flight period for each species. The flight period is defined as the weeks in which at least 1% of the total records for the species occur.

This approach is recognised to be fairly crude and results can be distorted by a range of factors. It is only likely to provide meaningful indications for species which occur fairly widely and in reasonable numbers. Trends for rarer species will always depend on regular recording at known sites. The approach assumes that recording effort each year is reasonably consistent in terms of geographical spread and timing. There are clearly some differences but they do not seem to be large.

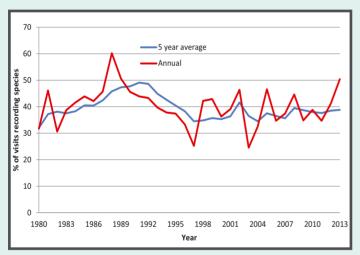


Figure 26. Trends for Large Red Damselfly.

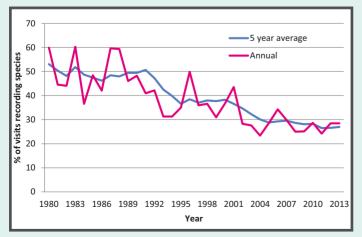


Figure 27 Trends for Common Blue Damselfly.



The number of dragonfly records from Scotland has been increasing but is still at a level where a small change in numbers can have a significant effect, hence year to year variations are quite large and a 5 year rolling average has been used to identify any underlying trend. Large Red Damselfly *Pyrrhosoma nymphula* is an example of the type of results obtained (see figure 26).

This is a widespread species in Scotland with records from 835 hectads out of a total of 995 hectads with records to 2012 and this is indicated by it being reported from an average of around 40% of visits in its flight season. Numbers of records for all species up to 2000 are relatively low and hence more variation is to be expected in this earlier period. The general indication is that the frequency of recording is fairly stable and this is taken as indicating a stable population.

Most other species occurring widely in Scotland seem to show a generally stable recording frequency despite significant year to year variations. Only two species show changes which appear greater than can be explained by year to year variations. Common Blue Damselfly *Enallagma cyathigerum* seems to show a steady decline as shown in figure 27. It is a widespread species; having been recorded from 781 hectads. There is no obvious explanation for this pattern other than a decline either in terms of locations or in population sizes making it less obvious at sites it inhabits.

Looking at figure 28 the Common Darter Sympetrum striolatum shows a rather different picture. This is another widespread species (occurring in 542 hectads) which seems to have shown a surge in recording frequency in recent years. Highland Darter was regarded as a separate species in earlier years and is still recorded separately on our database but the number of records is too small to have any impact on this result. This species appears to show a significant increase in the frequency of recording rising to a peak in the mid-2000s and subsequently falling. The rate of change seems to be too rapid to mirror actual changes, but it is unclear what is causing this pattern. One possible explanation considered was a change in the pattern of recording. Common Darter is a late flying species and visits late in the season may only record this species. We do not record visits with no species seen and hence a higher proportion of visits are likely to produce records when late summer/early autumn is warm. However, examination of the records shows no significant change in the temporal distribution of records. Trend analysis carried out for the Atlas and covering the whole of Britain suggested a slight decrease for this species. Is something different happening in Scotland or is there some factor unrelated to population change that is causing this apparent change?

It is interesting to look at the number of hectads recording the species each year. The total number of hectads recording the species each year is compared

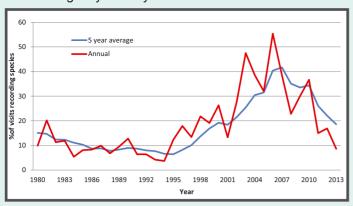


Figure 28. Trends for Common Darter.

with the total number from which Large Red Damselfly has been recorded in figure 29. Large Red Damselfly is used as a comparison because it is common and appears to be stable in terms of recording frequency. While this comparison is based on the same data set as the frequency calculations it does provide a different comparison. It does suggest that Common Darter is being found more widely while Common Blue Damselfly

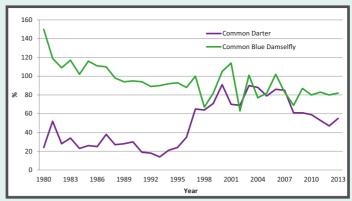


Figure 29. Number of hectads recording the species compared with the number recording Large Red Damselfly.

is being encountered less frequently.

This approach to examining trends is not without uncertainties and is by no means conclusive but does offer a method for identifying potential changes that are worthy of further study. The apparent changes for Common Blue Damselfly and Common Darter do seem to be real and are worth monitoring over future years.

Potential new species for Britain?

Adrian Parı

Since the mid 1990s, no less than seven species have appeared in Britain for the first time, these being (with year of first appearance): Scarlet Darter Crocothemis erythraea (1995), Banded Darter Sympetrum pedemontanum (1995), Lesser Emperor Anax parthenope (1996), Green Darner Anax junius (1998), Small Redeyed Damselfly Erythromma viridulum (1999), Southern Emerald Damselfly Lestes barbarus (2002) and Winter Damselfly Sympecma fusca (2008). In addition four other species either previously considered extinct, or with only a handful of past historic records, have also reappeared. These comprise Southern Migrant Hawker Aeshna affinis (2006), Willow Emerald Damselfly Chalcolestes viridis (2007), Dainty Damselfly Coenagrion scitulum (2010) and Large White-faced Darter Leucorrhinia pectoralis (2012). Since the British List comprises only some 54 extant species, the component of 'new' species is clearly

very substantial. In a large number of cases, the arrivals in Britain seem to be linked to range expansions taking place on the continent, with Climate Change believed to be the main driving force. A number of our recent new arrivals have indeed gone on to establish strong local populations, with particularly the Small Red-eyed Damselfly and, to a lesser extent, the Willow Emerald Damselfly now being widely distributed in southern England.

Climatic warming is an ongoing process, and indeed 2014 was the warmest year on record in the (central) UK. This strongly suggests that yet further 'new' species are set to appear in Britain over the next few years. The aim of this short note is to bring a few candidate species to people's attention.



Figure 30. Northern White-faced Darter Larva, photos of adults on the front cover. Christophe Brochard.



Figure 31. Southern Darter. Allan Brandon.





Figure 32. Small Emerald Damselfly. Christophe Brochard.

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Southern Darter Sympetrum meridionale. Formerly with its strongholds in Mediterranean regions, this species has been expanding northwards quite rapidly over the last few decades, and there have been numerous recent records from Belgium and The Netherlands, with particularly good numbers seen in the last two years. Breeding is now occurring on the near continent, and it seems quite likely that this mobile species may have already occurred in England but have gone unnoticed. The species is very similar to other red darters, but appears somewhat paler. The legs are pale with a dark stripe along them, rather than the other way round as in Common Darter, and the side of the thorax is very plain, with a dark-ringed spiracle near where the legs are inserted being one of the more obvious features. Males typically lack the dark marks on abdominal segments S8 and S9 that are seen in other darters.



Figure 33. Southern Skimmer. Christophe Brochard.

Small Emerald Damselfly Lestes virens. This species has become quite common in the east of The Netherlands over recent years, with individuals now also found in the coastal dune area. If the species can reach the Dutch dunes, then occasional appearances in England also seem likely. The species is slightly smaller than Common Emerald Damselfly, and has a yellow back to the head as in Southern Emerald Damselfly (from which it differs in having a dark brown pterostigma). Males can be most readily identified, showing extensive blue pruinescence on the tip of the abdomen but not at the base or on the thorax. The species can fly quite late in the year.

Northern (or Ruby) White-faced Darter Leucorrhinia rubicunda. This species is fairly common in the east of The Netherlands with additional records from the coastal dunes, and like Large White-faced Darter has known migratory/dispersive tendencies. It is similar in appearance to our own White-faced Darter L. dubia, but has somewhat larger spots on the abdomen and the pterostigma are generally more reddish (see photos on the front cover). Given the decline of White-faced Darter in Britain, any look-alike seen in southern or eastern England is most likely to be this species.



Figure 34. Goblet-marked Damselfly. Allan Brandon.

In addition to the dragonflies mentioned above, other possibilities include Southern Skimmer Orthetrum brunneum – males of which are all blue – and maybe species such as Goblet-marked Damselfly (aka Blue-eye) *Erythromma lindeni*. Even primarily African species such as the Violet Dropwing *Trithemis annulata* – now rapidly spreading north through Spain and southern France – are perhaps not total impossibilities. Finally, it is worth emphasising that Dainty Damselfly and current mega rarities such as Winter Damselfly, Large White-faced Darter and Scarlet Darter might well also become more frequent in the near future. It is certainly an interesting time for dragonflies in the UK at the moment, and observers are encouraged to keep their eyes open!!



Figure 35. Violet Dropwing. Allan Brandon.



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 AND WALES		
West Cornwall (with Scilly)	Perry Smale	48, Madison Close, Hayle, Cornwall, TR27 4BZ. Tel: 07412 262184. E-mail: smaleperry@yahoo.co.uk
2. East Cornwall		E main. Smaleperry@yamoo.co.uk
3. South Devon	Dave Smallshire	8 Twindle Beer, Chudleigh, Newton Abbot, TQ13 0JP. Tel: 01626 853393.
North Devon South Somerset	Chris Iles	E-mail: davesmalls@btinternet.com Arborfield, Holcombe Hill, Holcombe, Radstock, Somerset BA3 5DN.
C.N. II C	D '''	Tel: 01761 239092. Email: kifill22@hotmail.com
6. North Somerset	Position vacant	Send records to Chris Iles (VC 5).
7. North Wiltshire 8. South 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
9. Dorset	Andrew Brown	No.5, 25 Windsor Road, Bournemouth. BH5 1DT. Tel: 07891 573267. Email: brown_a_r@yahoo.co.uk Website: www.dorsetdragonflies.org.uk, Facebook 'Dorset Dragonflies'
10. Isle of Wight	Position vacant	
11. South Hampshire	Position vacant	Send records to the Records Officer. Email: records:@british-dragonflies.org.uk
12. North Hampshire	Position vacant	Linan. records.@birdsirdiagoililles.org.uk
13. West Sussex	Bob Foreman / Ben	Records to Bob Foreman. Tel: 01273 497570. Email: bobforeman@sussexwt.org.uk
14. East Sussex	Rainbow	Local enquiries to Ben Rainbow. Email: ben.rainbow@ntlworld.com
15. East Kent 16. West Kent	John & Gill Brook	1 Barrack Cottages, Lower Street, Broomfield, Maidstone, Kent, ME17 1PU. Tel: 01622 862227.
17. Surrey	Alistair Kirk	Surrey Biodiversity Information Centre, c/o Surrey Wildlife Trust, School Lane, Pirbright, Woking, Surrey, GU24 0JN. Tel: 01483 795448. Email: alistair.kirk@surreywt.org.uk
18. South Essex	Tod Donton	13 Priory Street, Colchester, Essex, CO1 2PY. Tel: 01206 86732.
19. North Essex	Ted Benton	E-mail: tbenton@essex.ac.uk
20. Hertfordshire	Roy Woodward	62c High Street, Cheshunt, Hertfordshire EN8 0AH. Tel: 07855 567332. Email: roy.rkwoodward@ntlworld.com
21. Middlesex	Position vacant	Send records to the Records Officer. Email: records:@british-dragonflies.org.uk
22. Berkshire	Mike Turton	7 Fawcett Crescent, Woodley, Reading, Berks RG5 3HX. E-mail: berksdragonflies@gmail.com
23. Oxfordshire	Stephen Burch	E-mail: 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.
26. West Suffolk	Auridii Pari	E-mail: adrian.parr@btinternet.com
27. East Norfolk	Pam Taylor	Decoy Farm, Decoy Rd, Potter Heigham, Norfolk, NR29 5LX. Tel: 01692 670 311.
28. West Norfolk		E-mail: pamtaylor@british-dragonflies.org.uk
29. Cambridgeshire	Val Perrin	13, Pettitts Lane, Dry Drayton, Cambs, CB3 8BT. Tel/Fax: 01954 780467. E-mail: valperrin@aol.com
30. Bedfordshire	Rory Morrisey	25 Alwins Field, Leighton Buzzard, LU7 2UF. Tel: 01525 372477. E-mail: 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 ¹	Ian Smith	E-mail: IDSLarus@aol.com
36. Herefordshire	Peter Garner	233 West Malvern Road, West Malvern, WR14 4BE. Tel: 01684 564 957.
37. Worcestershire	Mike Averill	49 James Road, Kidderminster, Worcs, DY10 2TR. Tel: 01562 638571. E-mail: mike.averill@blueyonder.co.uk Website: http://dragonfliesofworcestershire.weebly.com
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. E-mail: jacksongrus@talktalk.net



40. Shropshire	Sue McLamb	E-mail: mclamb1@btinternet.com Tel: 01743 354507. Website: http://shropshire-dragonfly-watch.blogspot.co.uk/ and www.british-dragonflies.org.uk/local_groups/shropshire-dragonflies
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	Charles a Calas	Mountain Grove, Clarbeston Road, Haverfordwest, Pembrokeshire, SA63 4SG.
45. Pembrokeshire ¹	Stephen Coker	Tel: 01437 563 566. E-mail: stephen.coker@live.co.uk
46. Cardiganshire ¹	Lin Gander	Penwalk Llechryd, Cardigan Ceredigian, SA43 2PS. Tel: 01239 682405. E-mail: lingander@strandings.demon.co.uk
47. Montgomeryshire ¹	Anne Coker	Mountain Grove, Clarbeston Road, Haverfordwest, Pembrokeshire, SA63 4SG. Tel: 01437 563 566 E-mail: stephen.coker@live.co.uk
48. Merionethshire ¹	Allan Brandon	Bryn Heilyn, Rowen, Conwy LL32 8YT. Tel: 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,12 Little Bargate Street, Lincoln, LN5 8JR. Tel: 01522 822069.
54. North Lincolnshire	Nick Tribe/Richard Chadd	E-mail: nick.tribe@ntlworld.com
55. Leicestershire		125 Church Lane, Whitwick, Coalville, Leicesterhire. LE67 5DP.
(with Rutland)	lan Merrill	Tel: 01530 815886. E-mail: i.merrill@btopenworld.com
56. Nottinghamshire		30 Cliffe Hill Avenue, Stapleford, Nottingham, NG9 7HD. E-mail: david.goddard@wyg.com
57. Derbyshire	Dave Goddard	
58. Cheshire	David Kitching	30 Carleton Road, Poynton, Stockport, Cheshire, SK12 1TL. Tel: 01625 423249. E-mail: davidk@brocross.co.uk Also online: www.brocross.com
59. South Lancashire	Steve White	Tel: 01519203769 (daytime). Email: stevewhite102@btinternet.com
60. West Lancashire		
61. South-east Yorkshire	Paul Ashton	4 St Aiden Close, Market Weighton, E.Yorks, YO43 3HE. E-mail: vc61@erdragonflies.co.uk , Website: www.erdragonflies.co.uk Facebook page at www.facebook.com/groups/yorkshiredragonflies
62. North-east Yorkshire	Keith Gittens	Sunnybank, Low Street, Husthwaite. York. YO61 4QA. Tel: 01347 868606. E-mail: brilliantemerald@btinternet.com
63. South-west Yorkshire	Alistair McLean	Museums Sheffield, Weston Park, Western Bank, Sheffield, S10 2TP. Tel: 0114 278 2648. E-mail: alistair.mclean@museums-sheffield.org.uk
64. Mid-west Yorkshire	Tom Hubball	4 South View Terrace, Silsden, W.Yorks, BD20 0AS. Tel: 01535 678334. Email: vc64dragonfly@virginmedia.com
65. North-west	Keith Gittens	See VC62
Yorkshire 66. Durham	Position Vacant	Send records to the Records Officer. Email: records:@british-dragonflies.org.uk
67. S. Northumberland	. Join vacant	
	Michael Gardner	28 Coxlodge Road, Newcastle-Upon-Tyne, Tyne & Wear, NE3 3UZ. Tel: 07827 84251. E-mail: vc67dragonflies@gmail.com
68. N. Northumberland		
69. Westmorland	David Clarke	Burnfoot, Cumwhitton, Brampton, Cumbria, CA8 9EX. Tel: 01228 560117. E-mail: david.clarke19@virgin.net
70. Cumberland		
71. Isle of Man	Position vacant	Send records to the Records Officer. Email: records:@british-dragonflies.org.uk
SCOTLAND		
From 72. Dumfrieshire 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. Email: 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. Email: brian.nelson@ahg.gov.ie Facebook 'Dragonfly Ireland'
Migrant Dragonfly Project	Adrian Parr	10 Orchard Way, Barrow, Bury St Edmunds, Suffolk, IP29 5BX. Tel: 01284 810 465. E-mail: 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 send them to the Records Officer (records:@british-dragonflies.org.uk) who will then forward them to the relevant recorder.

