

Dragonfly News 171

The Magazine of the British Dragonfly Society
Spring 2017
www.british-dragonflies.org.uk



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The Magazine of the British Dragonfly Society

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

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

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Deadlines for inclusion of copy:

Spring 31 January

Autumn 31 July

Advertising Rates:

£15 for small-ad (text only); £40 for quarter-page; £60 for half-page; £100 for full-page.

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| BDS Subscriptions (annual) | |
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| Ordinary membership | £20 |
| Ordinary – Overseas | £25 |
| Benefactor (minimum) | £40 |
| Life Member Benefactor | £20 |
| Library | £35 |
| Corporate | £100 |
| Subscriptions are due on 1 April each year. | |
| Please Gift Aid your subscription, if possible. | |
| All subscriptions & membership enquiries to: | |
| BDS Membership, Lynn Curry, 23 Bowker Way, | |
| Whittlesey, Peterborough, PE7 1PY | |
| membership@british-dragonflies.org.uk | |

Registered Charity Number: 1168300
web site: www.british-dragonflies.org.uk

ISSN: 1752-2633

Dragonfly News is printed by Artisan Litho using vegetable oil based inks on paper from well managed, sustainable sources, certified to Forest Stewardship Council (FSC) standards.

http://www.artisanlitho.co.uk

The plastic envelope used to deliver *Dragonfly News* can be recycled with shopping bags at larger retailers.

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* An asterisk indicates a change since the last issue



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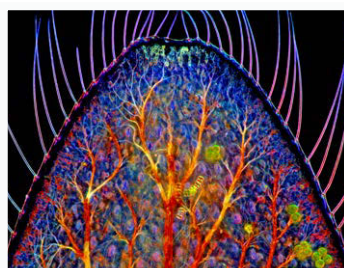
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Cover Image: This beautiful photomicrograph of a damselfly caudal lamella was taken by Polish photographer Marek Mis, and received an honourable mention in the 2016 Nikon Small Worlds competition. To see more of Marek's stunningly beautiful images, which are available to purchase, visit www.mismicrophoto.com



From the Secretary



Henry Curry

I'm writing this after another variable winter in terms of the weather and hoping in 2017 we're going to have a good spring and summer of dragonflies. It's a worrying time politically, wondering what the full implications of the dreaded 'Brexit' will be on conservation and wildlife for the UK, and across the bigger pond what will be the global impact for our planet given the situation in the USA. Outside our remit you may say, too big to worry about? Well, no, I personally think all of us in the BDS can do our bit to keep flying the flag for habitats and conservation – we have in dragonflies the ideal 'wetland ambassadors' that need to be monitored & protected, and we can keep on raising awareness about how important they are.

Fundraiser: In order to maximise use of our legacies, the Trustees decided we should advertise a new post of BDS fundraiser. Advertising produced a large number of applications, and after sifting through them we agreed on the best seven candidates and interviewed them in at the end of last year. As a result we've now employed Sarah Miller, who lives in East Sussex. Sarah started working with us on a part-time basis from 6 January. She's attended some key meetings and has met all the Trustees, and has a number of projects and grant applications in progress already. We have high hopes for the role, and I'm sure you'll hear more about her activities very soon.

Our President and the Annual Meeting: Everyone I've spoken to is delighted that we have Mike Dilger as our dynamic new President, as evidenced by his thrilling introduction at the

Annual Meeting last November. All the other speakers were spellbinding and the topics thought provoking. I'd like to thank all those who gave such amazing talks, and everyone who attended, for making the day so successful, and special thanks must also go to the people at Nottingham Trent University for making us so welcome. (Our own stalwart hero and ex-student, David Goddard, was the contact, and head of the Department of Environmental Science, Julia Davies, was our excellent host).

Unfortunately, we've had a bit of a setback in terms of booking conference facilities for this year, hence I'm unable to confirm yet where the Annual Meeting will take place. I do apologise for this delay and don't want to deter you attending; I know some of you travel a considerable distance and like to book accommodation as soon as you can. I'm working hard to let everyone know the new venue as soon as possible, via the website and e-newsletter. And of course the next issue of the magazine, Dragonfly News Number 72, will have the full details and programme for the day.

DH Wills charitable trust: We've had great news that the 'Breathing Life into Scotland's dragonflies' project has received a grant from the DH Wills charitable trust. The grant will allow our Scotland Officer, Daniele Muir, to cover a wider geographical area with the new outreach programme, help to enthuse more people about dragonflies and also to establish two new Dragonfly Hotspots to use as a focus for community engagement, volunteer days and training courses.

Clubtail Count: Records for the enigmatic Common Clubtail Dragonfly are patchy and dated. Following a survey in Shropshire (featured in DN70), member David Tompkins is running a larger scale project to understand the population size and distribution of this dragonfly over the whole country. We are calling on all nature lovers to join us in the search for this beautiful insect. No previous experience in dragonfly identification is needed, and you can give as much or as little time as you like, with all efforts

making a valuable contribution to the conservation of a symbolic riverine dragonfly.

Dragonfly Challenge: During Dragonfly Week this year (15th to 23rd July) we'll introduce Dragonfly Challenge to the general public. It will be a mass participation, citizen science Dragonfly survey, similar to surveys carried out by other organisations for birds and butterflies. We hope it will allow us to reach and involve a much wider audience, engaging and educating the wider public on the importance of these amazing species. By involving the public, we'll gain greater information on the more common species and their appearance in gardens and community spaces (both urban and rural). This should give us a greater understanding of the impact that changes in habitat and climate are having on dragonflies.

Legacy: Among the names that were read out at the Annual Meeting last year in Nottingham, I announced that one of our members, Mr.A.W.Jollands, had sadly died. It transpires that Mr. Jollands obviously thought a lot of the work of the BDS, as he has left us a handsome legacy in his will. This money is extremely valuable to us as, unlike grants we receive, it is not linked to any particular project. Because of this we can decide how we use the money to best advantage without any requirement for a specific output, and this applies especially to the general work of our Conservation Officer.

Trustees: After re-vamping the constitution towards the end of last year we've restructured the jobs within the Board of Trustees, so we are now very pleased that Brian Walker has temporarily taken on the new role as our Chairman. Despite being an engineer by training and profession, Brian stepped in to take over from Tony Carter as Treasurer back in 2008, and he has been fulfilling this position admirably since then. His position as Treasurer has been filled by Nigel Scott, who joined us as a Trustee back in 2015. Nigel brings a wealth of charity & treasurer skills and experience, and we are very pleased to have him take on this role. As ever can I ask you to contact me or any of the Trustees and give them your ideas, or ask questions about any of the issues we are discussing.

DN

From the ConsOff



Genevieve Dalley

You will be reading this as the dragonfly season 2017 begins to kick off, but I am writing it in chilly January, when we at the BDS are busily preparing everything for the new season! We have some really exciting projects coming up this year which I am keen to share with you all, as well as updates from areas of our ongoing work.

In DN70, I mentioned our Shropshire Clubtail Survey, which collected much needed data on the species' distribution and status along the river Severn in Shropshire. The survey was a success with around 90 new records for the Common Clubtail Dragonfly in Shropshire. Therefore, this year we have extended the survey to cover all the rivers the Clubtail is found on and we need your help to survey them! Volunteers need no prior experience of dragonfly surveying; we will tell you all you need to know to identify this distinctive species. You can read more about this project in this spring's issue of *Darter* and on our website.

Work is progressing on Southern Damselflies nationally. We continue to work closely with Natural Resources Wales (NRW) on the species' sites in south and north Wales. Our work within the Dorset Southern Damselfly Group is also forging ahead, with larval surveys planned for this year. The BDS has also created and released a management handbook for the Southern Damselfly, providing land owners and managers with practical information on the species' needs and how these can be met on site. This can be found under the publications tab on our website.

Our Willow Emerald Watch project is going from strength to strength with a great number of new records last year, including sightings from four new

counties: Bedfordshire, Lincolnshire, Northamptonshire and Buckinghamshire. There was also a new sighting from Hackney in London. We are asking everyone, especially those living near the species' current range, to keep their eyes peeled during July to October this year so we can continue tracking the spread of these remarkable damselflies. Visit the Willow Emerald Watch project page on our website for more information and to download our handy Emerald Damselfly identification guide.

This is an exciting time in the world of dragonflies, with many new species appearing on our shores and some of these doing astonishingly well. We have an article in *Darter* outlining some of these new additions, as well as other species we can expect to see in the future. If you see an unusual dragonfly, please don't forget to let us know. You can find more information about this on our Migrant Dragonfly Project page on the website.

This year we are launching The Dragonfly Challenge! This is a citizen science project aimed at collecting more data on the whereabouts of common dragonfly species as well as connecting people with the dragonflies in their local area. The Challenge runs through Dragonfly Week (15-23 July) and we are asking you to pick one day that week to head over to your local pond, lake, river or any other wetland and count the dragonflies you see. You can even download and print out our handy spotter sheet to take with you.

We are also pleased to be involved in London Wildlife Trust's Water for

Wildlife Project. This project hopes to give us more information about London's dragonflies as well as create a community of dragonfly enthusiasts and recorders within the Greater London area. To find out more about this project, and to get involved, visit the London Wildlife Trust website.

Our Annual Meeting, on Saturday 19 November 2016, was a great success. Well over 100 people attended the meeting, ranging from seasoned recorders to complete novices. Highlights included an enthusiastic ode to dragonflies by our new President, Mike Dilger, a flash tour of the dragonfly and damselfly larvae of Europe, accompanied by incredible photographs, by Christophe Brochard, and an in-depth but fascinating look at the visual and chemoreceptors of dragonflies by researcher Milly Sharkey. It really was an inspiring day.

The BDS attended or ran over 70 walks, talks, courses and events during 2016, spreading the word about the amazing world of dragonflies and how you can help them. We are aiming to reach out to even more people this year and would love to see you at one of our events. The events page on our website is regularly updated with upcoming dragonfly events so keep an eye on this to find events near you. And have a great dragonfly season 2017! **DN**

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Danièle Muir - Scotland Officer



Hotspot Update 2016

Over the past few years we have established eight Hotspots throughout the country, from Scotstown Moor in Aberdeen in the north to Greenhead Moss near Wishaw in the south. Hotspots are sites where there are good dragonfly populations, easy access for people to reach the top dragonfly spots and communities close by that can get involved in dragonfly events and conservation. The Hotspots have been a focus for dragonfly training courses for Rangers, community groups and the general public, along with various guided walks and practical conservation days. Our Hotspots are working well in helping to attract and engage more visitors to the sites.

In 2016 we established two new Dragonfly Hotspots – Flanders Moss near Stirling and Caerlaverock Wetland Centre near Dumfries. We celebrated Flanders Moss becoming our first Hotspot of 2016 by running a ditch-blocking volunteer task in February, attended by BDS volunteers, Flanders Moss volunteers and Scottish Natural Heritage staff. In the past drainage ditches had been dug across the site, so we worked to block them by creating peat dams. The dams have helped to bring the water back to the surface of the bog, which will help the bog vegetation to re-grow and the small pools that we made have become excellent habitat for the abundant dragonfly population on Flanders. We are carrying out a similar task

here in February 2017. We also ran one guided walk/ mini ID session and a day's ID & Recording training day at Flanders Moss where, despite cold and wet weather, we found plenty of dragonflies and damselflies in different life stages. Visit on a warm day and you are almost guaranteed to see lizards sunbathing on the boardwalk, as well as lots of dragonflies.

Caerlaverock celebrated their new Hotspot status with a giant lego brick sculpture of an Emperor Dragonfly named Emily taking up residence for the summer, along with many exciting events. Bug hunts, pond dipping, Nature Explorers passport activities, and a Dragons & Damsels family day all took place, along with a special Dragonfly Recording and Identification day, run by BDS member Mike Abbs. Faith Hillier, the site's Engagement Officer has written us an article about what has been going on since they became a Dragonfly Hotspot.

Our other Hotspots have been busy places too! At Crombie Country Park the Rangers held a Hunt the Dragon event for the Young Naturalist's club and we ran a Larvae ID workshop in the summer. In late autumn we had a number of volunteer days to carry out both pond and heathland management.

At Morton Lochs we ran a guided walk for SNH, had a volunteer day to continue working on a pond that we'd started clearing out in 2015 and a new member of staff, Ruari Dunsmuir, carried out a dragonfly transect which he tells us more about in his own article.

At Greenhead Moss the Ranger Service ran a few surveys days prior to carrying out reedbed removal, which showed that the Common Hawkers are now found in areas in the park where they hadn't been found previously. They also ran a pond dipping day and this year there will be a dragonfly event on Sat 10th September from 12pm to 3pm.

At Gartcosh we ran a mini ID-training session for the Seven Lochs project. This is a great location

for watching Common Hawkers emerging – they tend to emerge in the middle of a number of small ponds and it's easy to watch them from the bank, which everybody found fascinating.

Our guided walk at Trottick Ponds in Dundee was on a beautiful sunny day but we still need a complete species list, so if there is anyone near Dundee who is keen to adopt the site and visit regularly, please get in touch with Daniele. Portmoak Moss has undergone management recently to try and re-wet the Moss and we had a guided walk here in very wet weather where we found Common Hawker larvae but there were no adults on the wing.

We had a very successful guided walk at Devilla where we spotted most of the species present at the site and then in the autumn a volunteer day, where we cleared vegetation from a very overgrown Keir Dam. This is quite a significant task so I think we will be working on it for years to come.

Aberdeen City Rangers, who manage Scotstown Moor Hotspot, held a very successful guided walk in the summer and a pond management day in November, where they had thirteen volunteers, working for a total of 65 hours altogether!

In 2017 we will designate two more Hotspots and will keep you updated on their progress through Facebook and the BDS website.

I'd like to thank all the Hotspot landowners & land managers for their enthusiasm for dragonflies and their help with events. And of course our recorders, whose information is what helps identify potential Hotspots. **DN**

Report from the Dragonfly Conservation Group



Dr Pam Taylor

The DCG exists as a committee within the BDS and aims to co-ordinate the conservation, recording and research aspects of the organisation. It works closely with the Trustees of the Society and the BDS network of Vice County Recorders. The DCG meets twice a year in spring and autumn, and currently numbers 11 individuals, plus one corresponding member.

In this, my second report since taking over the reins of the DCG once again, I would like to highlight a few key areas of our recent work. Much of this work has been carried out in partnership with our paid Officers.

A survey sent out to all of our BDS County Recorders was returned by no less than 90% of them and the geographical area covered by the responses was even greater. The results showed an increasing uptake of iRecord as our data entry system of choice for dragonfly records, but also revealed several teething problems for our Recorders who act as record verifiers within iRecord. Our Data Manager, David Hepper, has taken on board the various comments and is working closely with the system's managers at BRC (Biological Records Centre) to improve functionality within iRecord. The data entry side of things that is seen by you appears to be working well. Please see my article about DragonflyWatch in *Darter* for more details about iRecord.

Another aspect highlighted by the survey responses is the lack of understanding of the terms Vice County Recorder (VCR) and Dragonfly Recording Network (DRN) outside the BDS. In fact most VCRs already call themselves BDS County Recorders when talking to the public at events to avoid confusion. It has therefore been decided to dispense with the terms VCR and DRN even within the BDS. Instead we now have BDS (County or Area) Dragonfly Recorders collating records for the BDS Recording Scheme. If you wish to view our BDS dragonfly records on the NBN Gateway website, which is where all our verified records eventually go on public view, then BDS Recording Scheme is the set of data you should now look for.

On the conservation side of things, the DCG and Conservation Officer are continuing to keep a close eye on matters concerning

Southern Damselfly, a species protected by both UK and European law. Genevieve attended a meeting of the Dorset Southern Damselfly Group back in October and survey plans are progressing well there. In Hampshire, the DCG was concerned about a potential restoration project at the Latchmore Brook and sent two letters to the New Forest Park planning authority. Our concerns about the project were answered in full and we decided to support the overall scheme to restore meanders in the brook. At the subsequent planning meeting in November however, the application was narrowly defeated by six votes to five. The DCG will continue to monitor the ongoing situation in the New Forest, as well as other areas.

As with any organisation, the BDS has a number of policies in place that set out how matters should be considered and handled. The DCG has recently reviewed, and where necessary revised, the policies for non-native species, VCRs (now BDS County Recorders) and volunteers. These and other policies are all available via the BDS website.

The DCG has always encouraged the study of dragonflies and amateur research. To that end various grant schemes have been set up and operated over the years. One such scheme was set up in memory of founding BDS President Philip Corbet; an expert in odonate biology. It offered grants to those under 25 years of age who wished to conduct a small research project. A second scheme was later set up to honour Norman Moore, a conservationist and scientist who both established the DCG and became its first Convenor. This grant scheme had similar aims to the Corbet Award, but supported those over 25 years of age. These two grant schemes have now been joined into one combined Corbet Moore Award and the grants redirected towards projects that you, as BDS members, might like to carry out. Details again are on our website. [DN](http://www.british-dragonflies.org.uk)





A Note from the Membership Office

Hi all, I hope you are well and are looking forward to the new dragonfly season. It is the time of year for you to renew your membership of the BDS (the membership year runs from the 1st April to the 30th March). For those of you who do not pay your membership by Standing Order (SO) you should have already received a membership renewal form, either by post or via e-mail. **Please note, we are no longer including a renewal form with this mailing.**

If you have not already paid your membership for this coming year, there are 2 ways that you can proceed:

1. On our web site using credit / debit card or PayPal. Just follow the link for membership renewal. Please remember to quote your membership number if you know it (that helps with the paperwork!)
2. By cheque. If you pay your membership annually by cheque please could you complete and return the membership renewal form to me, together with your membership fee.

If you have not received a renewal form and you are unsure if you have set up a Standing Order, please contact me either by phone (01733 204286) or by e-mail (membership@british-dragonflies.org.uk), and I will check your details on the database. If you normally pay by cheque or via the web site you may find it more convenient to set up a Standing Order for this and any subsequent payment. If you wish to do this please could you complete all the sections on a membership renewal form, which can be downloaded from our web site, and return it to me; alternatively if you use internet banking you can set up a Standing Order very easily online.

Please also remember to keep me informed of any change of postal or e-mail address.

If you have any membership queries please do not hesitate to contact me. In the unlikely event of your wishing to leave the society, please let me know. This will prevent the extra expense of sending you an unnecessary reminder letter.

Lynn (membership@british-dragonflies.org.uk)

A New Fundraiser for the BDS

With the society and its ambitions growing from strength to strength, the BDS felt it was the right time to invest in a fundraiser, enabling us to secure the funds needed to support our work to conserve dragonflies and their wetland habitats.

The candidate chosen to take for this brilliant new role is Sarah Miller. Sarah has a varied background in fundraising, working for organisations including Greenpeace and the Big Issue Foundation, where she was Head of Fundraising for 5 years. Sarah says: "I am really excited to be joining the team at BDS. I have always been interested in environmental and conservation issues and really enjoy spending time in the beautiful countryside. I live in a small village in East Sussex, with my husband, 3 children and a dog. We are fortunate to live within a conservation area, with woodland, fields, marshes, ponds and rivers to explore on our doorstep. We enjoy spotting all kinds of wildlife, but there is something very special about dragonflies and damselflies, and I am looking forward to learning more about these amazing species."



New Shop Manager

By the time you read this, the BDS shop will be under new management. After 8 years as BDS shop manager, I am handing over the management of the shop to a new and very capable pair of hands. Don't worry as far as your shop orders are concerned nothing has changed you can still order via the web site or via post and the e-mail contact details will stay the same (shop@british-dragonflies.org.uk). I would like to thank you all for your support in the past and hope that you will continue to support the shop in the future. I will now let Peter introduce himself.

Peter says: "I've have been fascinated by wildlife since I was a young boy and I'm now fortunate enough to live on my own small nature reserve on the North East Essex coast. We have a nice variety of habitat on site, including freshwater ponds, reed bed, woodland, scrubland, saltmarsh and a tidal estuary with a wide range of mammals from mice to fallow deer passing through, birds from gold crests to marsh harriers and a good selection of insects including several dragonfly species.

I work as an IT Consultant in the finance sector and I'm looking forward to helping run the BDS shop and certainly hope I can get the orders delivered as quickly as possible."



Lynn Curry & Peter Brown

Last Dates for 2016

Adrian Parr rounds up the last recorded dates for each of the common UK species.

As outlined in DN70, it had been a fairly average start to the season in 2016. Since that issue, three new 'first dates' have come to light (detailed below), but these do not greatly affect the overall picture. The second half of the 2016 dragonfly season was often undramatic weather-wise, apart from a notable warm spell during early September, and it was similarly to be a fairly average end to the season. A few of the later-flying species did however hold on well, and one or two other highlights stood out. A sub-mature male Black-tailed Skimmer seen on 28 September probably resulted from an autumn emergence, as is now occasionally noted in many of our chasers and skimmers, but a report of a Large Red Damselfly in Radnorshire on 9 October (C. Montanaro) is unprecedented, and is of unknown derivation. The next latest records for the species were on 30 August from two sites in Berkshire, in themselves quite good late dates for this more typically early-season species. A White-legged Damselfly seen on 19 September and a Golden-ringed Dragonfly on 21 October are also good late records. [DN](#)

| SPECIES | FIRST DATE | LOCATION | OBSERVER |
|--------------------------|------------|----------|---------------|
| Small Red-eyed Damselfly | 24-Jun-16 | Kent | J. & G. Brook |
| White-legged Damselfly | 9-May-16 | Kent | T. Dove |
| Downy Emerald | 4-May-16 | Kent | T. Dove |

| SPECIES | LAST DATE | LOCATION | OBSERVER |
|--------------------------|------------|------------------|---------------------------|
| Banded Demoiselle | 6-Oct-16 | Cheshire | P. Leicester |
| Beautiful Demoiselle | 21-Sep-16 | Cumberland | M. Richards |
| Scarce Emerald Damselfly | 8-Sep-16 | Norfolk | J. Mee |
| Emerald Damselfly | 2-Oct-16 | Glamorgan | M. Thornton |
| Willow Emerald Damselfly | 13-Nov-16 | Kent | M. Heath |
| Azure Damselfly | 31-Aug-16 | Kent | M. Heath |
| Variable Damselfly | 26-Jul-16 | Kent/West Sussex | W. Hirstle/M. Gurney |
| Red-eyed Damselfly | 11-Sep-16 | Cambridgeshire | S. Legg |
| Small Red-eyed Damselfly | 1-Oct-16 | Hampshire | S. Loader |
| Large Red Damselfly | 30-Aug-16* | Berkshire | R. Dobbs/L. Garvey |
| Common Blue Damselfly | 31-Oct-16 | Northamptonshire | D. Sutcliffe |
| Blue-tailed Damselfly | 19-Sep-16 | Westmorland | G. Hedges |
| Small Red Damselfly | 16-Sep-16 | Hampshire | D. Hankinson |
| White-legged Damselfly | 19-Sep-16 | Kent | T. Dove |
| Southern Hawker | 28-Nov-16 | Hampshire | S. King |
| Brown Hawker | 11-Oct-16 | Kent | T. Dove |
| Norfolk Hawker | 26-Aug-16 | Norfolk | T. Needham |
| Common Hawker | 5-Nov-16 | Outer Hebrides | E. Davidson |
| Migrant Hawker | 16-Nov-16 | Essex/?Suffolk | M. Kempa/N. Nowers |
| Emperor Dragonfly | 28-Sep-16 | Hampshire | I. Lloyd-Williams/A. Orme |
| Hairy Dragonfly | 17-Jul-16 | Cambridgeshire | N. Gates |
| Golden-ringed Dragonfly | 21-Oct-16 | Cornwall | S. York |
| Downy Emerald | 20-Jul-16 | Somerset | M. Taylor |
| Brilliant Emerald | 24-Aug-16 | Surrey | D. Murdoch |
| Broad-bodied Chaser | 22-Aug-16 | Hampshire | L. Hankinson |
| Scarce Chaser | 9-Aug-16 | Cambridgeshire | J. Gooch |
| Four-spotted Chaser | 23-Aug-16 | North Yorkshire | C. Bull |
| Black-tailed Skimmer | 28-Sep-16 | Warwickshire | J. Roberts |
| Keeled Skimmer | 7-Sep-16 | Radnorshire | R. Andrew |
| Black Darter | 31-Oct-16 | Hampshire | per P. Lord |
| Ruddy Darter | 20-Oct-16 | ?Norfolk | D. Rees Roberts |
| Common Darter | 9-Dec-16 | Hampshire | A. Collins |



Migrant and New Colonist Update

Adrian Parr reports on the activities of migrant and new colonist dragonflies for summer and autumn 2016.

The early part of 2016 had been a fairly quiet time for migrant dragonflies, with Red-veined Darter in particular being rather less prominent than has become the norm in recent years. The second half of 2016 then continued in not dissimilar vein. As might perhaps have been expected after the relatively subdued spring, there were no reports of autumnal emergences by Red-veined Darter, and there were indeed only a handful of sightings of the species, mostly in the southwest. Lesser Emperor also produced relatively few late-season sightings, though the year has a whole was to be fairly average, with reports from some 14 sites as far north as Shropshire (P. Hope) and Derbyshire (J. & H. McMahon).

Despite the relatively low key showing by our more regular migrant species, the year was not without its migration highlights. In particular the Vagrant Emperor was to continue its recent run of multiple sightings; it is certainly seen more regularly now than it used to be, and while the increasing numbers and experience of dragonfly enthusiasts must account for some of this, genuine changes in range/immigration frequency may

well also be taking place. In 2016 there were to be no less than five confirmed records from the UK, all during the period 15 September to 25 October. Interestingly, most records came from either the Scilly Isles (M. Hartland, W. Scott) or from the Orkneys (K. McEwen, S. & G. Wharton), though there was also a sighting at Burnham Overy in Norfolk during late October (R. Chittenden). One was additionally seen in Co. Westmeath, Ireland, during the autumn.

Britain's recent colonist species also produced a rather mixed showing during 2016. Some, such as the Southern Emerald Damselfly, had a rather uneventful year. This species was noted again in reasonable numbers at its regular breeding site at Cliffe in Kent, though perhaps because some of the colony is on private land, few individual records were received. Elsewhere, the species was also recorded again at Winterton in Norfolk, but only a single individual was involved – a mature male noted on 18 August (P. Heath) – and this was seen some distance from its more regular pools in the area. The exact status of the species at Winterton thus continues to remain obscure. Away from these sites, no other reports were received during 2016.

Not all recent colonists had a quiet year, though. Southern Migrant Hawker put on a good showing at its sites in the greater Thames Estuary area, with Watt Tyler Country Park and Hockley Woods in Essex being the focus of much attention, though there were reports from many other sites. Importantly, there were also signs that range expansion may now be starting to take place. Several individuals, perhaps even an already-established breeding colony, were thus discovered in the St Osyth area of northeast Essex during early August (C. Atkins et al.), and a report from Kew in Greater London/Surre **DN** currently being assessed by the national Odonata Records

Committee.

The other recent colonist to do well was the Willow Emerald Damselfly, which clearly goes from strength to strength. During 2016 there were reports from no less than four new counties, namely Berkshire, Buckinghamshire, Lincolnshire and Northamptonshire. Following its first appearance in southeast Suffolk during 2007, the species has now spread as far west as Milton Keynes and as far north as Gibraltar Point. Further details of recent developments can be found on the BDS website at <http://www.british-dragonflies.org.uk/node/6989> and <http://www.british-dragonflies.org.uk/node/7005>. It will be of considerable interest to see what happens with the species during 2017. **DN**

InBox

Continued.....

Worldwide Dragonfly Society

The Worldwide Dragonfly Society (WDA) announces that applications are now being considered for Conservation and Research Grants for 2017. The applicant must be a member of the WDA and the value of each grant is usually capped at 1000 Euros. For full details on how to apply for the grant, go to our website worlddragonfly.org/?page_id=15). For details on how to become a member of the WDA (with an option to subscribe to the International Journal of Odonatology and special rates for students), please see our website worlddragonfly.org/?page_id=141) or write to us via the WDA Secretary at wdasecretary@gmail.com. Sponsored memberships are also available.

FEATURES

Willow Emerald Watch

Help track the expansion of the Willow Emerald Damselfly - here's how

Just a decade ago, the Willow Emerald Damselfly had only been reliably recorded in the UK on 2 occasions, in 1979 and 1992. A single individual was then recorded in southeast Suffolk during 2007, followed in 2009 by a sudden boom of 400 records of the species from this same general area (SE Suffolk/NE Essex). Since this time, the Willow Emerald has spread rapidly across the south-east of England, gaining footholds in new counties on a yearly basis.

The natural colonisation and spread of this damselfly in the UK is incredible. It is important we track the species in order to understand how it is spreading so rapidly and what might limit the species in the future. For this reason, the BDS have developed the 'Willow Emerald Watch' project.

Thanks to the efforts of our volunteer dragonfly recorders, we have been able to closely follow the spread of the Willow Emerald Damselfly since those first mass sightings in 2009. The spread was steady at first but since 2014 the rate of expansion increased rapidly and in 2015 the species was found in 8 counties: Suffolk, Norfolk, Essex, Kent, Cambridgeshire, Hertfordshire, Surrey and west Sussex. In 2016, the species colonised yet further new counties, including Bedfordshire, Lincolnshire, Northamptonshire and Buckinghamshire with several sightings submitted:

We are keen to continue following the progress of this beautiful little



damselfly and we need your help. We are recruiting as many volunteers as possible to get involved with recording the Willow Emerald Damselfly, in particular in those counties bordering the species' range so far. You can give as much or as little time to the project as you like; all records of the Willow Emerald help to build on what we know of this fascinating new species in the UK.

The Willow Emerald Damselfly is one of four emerald damselfly species which can be found in the UK. The species in the group are well known for sitting with their wings partly open when at rest, as compared to other damselflies which generally rest with closed wings. One of the emerald species is very common, the Emerald Damselfly, two are rare, the Southern Emerald Damselfly and the Scarce Emerald Damselfly, and the fourth is the Willow Emerald Damselfly. The species are fairly similar in appearance and it can be easiest to take photos of any emeralds you are not sure of and have a closer look at these at home.

The Willow Emerald Damselfly is unique in the UK due to its behaviour of spending the majority of its time basking on waterside trees, largely Willow and Alder. They are particularly fond of

bare, leafless areas of trees which receive maximum sunlight. Willow Emerald Damselflies are usually found near ponds, canals and other still or slowly-flowing waters with overhanging trees.

The Willow Emerald is a mid-summer to mid-autumn species, with most records arriving between July and October, and some individuals even being seen as late as early November. Warm, dry and windless days will offer the best views of the species. Records for the Willow Emerald Watch are to be sent either to the Project Co-ordinator, Adrian Parr (adrian.parr@btinternet.com), or to the relevant BDS Local Dragonfly Recorder. **DN**

Main picture: Ovipositing Willow Emerald in Buckinghamshire by Harry Appleyard.

Inset: Oviposition scars in Northamptonshire by Mark Tyrrell.





Dragonfly News Editor *Mark Tyrrell* reports on talks on dragonfly senses, dragonflies in art and larval biology (among others) in what was, in his opinion, the best Autumn meeting.

Having visited Nottingham Trent University, the location for the 2016 Annual Meeting, the previous week for an open day with my son, I expected this campus to be close to the city. With my sat-nav telling me to head further and further away from Nottingham and deeper into the Nottinghamshire countryside, I became increasingly concerned that I had published the wrong post-code in DN70 and that I would soon join a queue of lost BDS members all trying to get to the Annual Meeting. Fortunately, just at the time my sat-nav predicted I saw the signs for the Brackenhurst Campus and joined, with relief, fellow members in the car park.

This was the first meeting under the new Charitable Incorporated Organisation status of the BDS, and we welcomed our new President, TV naturalist **Mike Dilger**, who opened the meeting in his usual inimitable style. I thought Brian Blessed had a booming voice until Mike started his introduction. Mike is probably most famous for "The One Show", where he apologised for only getting dragonflies into four of his 400 films, he then committed to banging the drum

for butterflies much to the consternation of the audience, a rapid volte-face and he had remedied his little faux-pas. The problem is, he explained, that dragonflies just aren't furry enough for the BBC. Mike recounted his history with dragonflies filling his talk with metaphors-a-plenty, describing the White-faced Darter as a "Crackerjack of a dragonfly", and a more general description of them as "canaries in coal mines" to describe their use as arbiters of water quality. Due to other work commitments, Mike couldn't stay all day which was a shame for all present including him because there was plenty more of interest.

Poor **Dorothy Gennard** was next up, I say poor because by her own admission Mike is a hard act to follow. Dorothy shared with us research work on chemo-receptors in larvae, i.e. can dragonflies taste and smell and if so for what purpose. Using scanning electron microscopy, Dorothy's researchers were able to detect definite morphological evidence of chemo-receptors on the antennae of Brown Hawker larvae. These match equivalent structures on other insects, but don't provide absolute evidence that

they share the same role. There was even a measured electrophysiological response suggesting that these are true receptors. To confirm the presence of chemoreceptors and establish their use required tempting larvae in a tank to move to another tank by the addition of certain amino acids, which mimic the secretions of their common prey. The larvae moved as expected. It was concluded dragonflies can indeed taste and "smell" in order to locate prey items via their chemical signatures, sense whether they are consuming the correct food, and by sensing the environment (e.g. rotting wood) to ensure they have optimum habitat for the next generation.

The translocation of White-faced Darters to Foulshaw Moss is a well known project, publicised in Dragonfly News frequently. As 2016 marked the fourth year, when funding came to an end, the translocations are now finished.

Chris Meredith updated the attendees on the status of this project. For more information, read Chris's paper in the accompanying Journal.

After flooding his hotel room in the shower, **Christophe Brochard**, the invited speaker for the day, gave a talk on dragonfly larval biology. I think larvae fascinate Christophe more than adults and this talk certainly got the message across that larvae are well worth studying. Christophe recently published a larval key but commented that all keys are under review because of new discoveries, and also that for some genera, notably *Platycnemis*, no current key works because of huge morphological variations. This is OK for us as we only have one species, but in areas of France for example it presents more of a challenge. It is even possible to ID some larvae from Kingfisher pellets. Not surprisingly, Christophe's kids can now ID all Cordulegaster larvae in Europe! As ever, Christophe's talk was engaging and thoroughly enjoyable aided by his excellent photography.

BDS Archivist **David Goddard** introduced us to the Dragonflies of Nottinghamshire, starting with a review of the typical habitats in the County. These range from gravel pits, rivers, canals to ponds. The two important canals in the County are the Erewash Canal and the Nottingham Canal. Nottinghamshire hosts 16 species, with no notable species. This may soon increase to 17 if the Scarce

Chaser spotted just inside Leicestershire, moves across the border.

The meeting then adjourned for the AGM.

After lunch we were immersed in the world of dragonfly vision. Having been show about their sense of taste and smell earlier in the day, this talk by **Camilla Sharkey** nearly completes our knowledge of dragonfly senses. Maybe next year we will hear about their sense of touch? While humans have three opsins in the eye – sensitive to long, medium and short wavelength light (red, green and blue in simple terms) - dragonflies have 33. Why so many when three are adequate? These opsins vary between the larval and adult stages and the function



Opposite: New BDS President Mike Dilger opens the Autumn Meeting (no microphone needed!).

Inset: Advertising the meeting outside the University building. **Above top:** The audience are enthralled by Henry Curry's introduction.

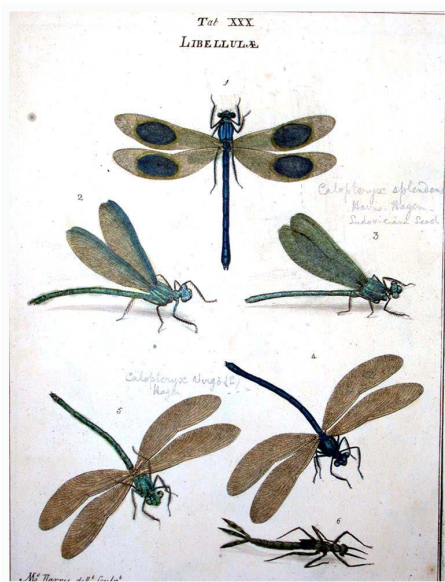
Above bottom: Lynn Curry's last stint as BDS Shop Manager.

All photos: Mark Tyrrell



of these extra copies remains unknown. Another aspect of vision discussed relates to detection of polarised light. Light from the sun is unpolarised and becomes polarised on reflection by water. The ventral region of dragonfly eyes is highly sensitive to polarised light which is why they can often be seen flying around highly reflective surfaces such as sand and tombstones that are mistaken for water! Underwater, if the polarised light is removed vision becomes clearer and experiments have shown that dragonfly larvae do filter polarised light, presumably to improve their hunting. In conclusion, larvae and adults use the same visual abilities for different purposes.

As a photographer, I always enjoy looking at images of dragonflies, and while **Paul Martyn Cooper's** talk covered dragonfly illustrations, I none-the-less found the artists' interpretations fascinating. The first dragonfly images appeared in the second half of the 18th century, when dragonflies were simply referred to as flies and larvae as caterpillars. They ranged from the fanciful



to the ecologically correct, such as by Moses Harris in *The Aurelian* and in the case of George Edwards in *Gleanings of Natural History*, they were used as space fillers in illustrations of birds. Beautiful illustrations and Paul's knowledge is first class.

Pam Taylor finished off the day,

stepping in for Dave Smallshire who was off gallivanting around the world on another "holiday". Pam's talk was about the Dragonflies of Madagascar, following an expedition there organised by Odonatours. This must have been a great trip because 5 species new to science were found, including what is believed to be the first photo taken of a female *Crocothemis striata*. On top of all this, we learnt that despite being Dutch, dragonfly expert Klaus-Douwe B. Dijkstra, swears in English.

I must say that this was the best Annual Meeting I have attended. The breadth of topics covered was both wide and fascinating, with just the right level of scientific detail to inform without swamping the non-scientific members of the audience. For this, the Trustees should be congratulated for the effort put in along with a special thanks to the presenters for putting their topics across so clearly. **DN**

Above: Libellulæ illustration by Moses Harris. Wikimedia Commons.

Naturetrek's Partnership and Private Groups

This new service offers a team of wildlife travel experts dedicated to helping UK wildlife clubs and societies to arrange their own personalised group holidays. Each tour will be designed exclusively around the society or branch and its members, offering a host of benefits that you might like to take advantage of, for example:

Fundraising opportunities. An attractive price – lower than that of our scheduled departures (and that of other tour operators) – will allow you to use these tours to raise funds for your branch, utilising our discount to do so, should you wish. Flying together from a convenient regional airport. Our private tours for clubs and societies are built around each group's needs. Naturetrek offers the option of travelling to your destination by flying direct from your local airport or, in certain cases, by rail or coach directly from your home town. Travel to an exciting destination with your friends and branch members, following a carefully designed itinerary, led either by your own experts or Naturetrek naturalists (or both).

Comprehensive 'full service' package. Our dedicated team will help you every step of the way. Naturetrek's professional staff of expert wildlife tour consultants, based at our Mingledown Barn headquarters in Hampshire, are on-hand to assist you during the booking process, answer any questions, and provide comprehensive booking information and pre-departure documents directly to your members, including checklists and previous reports. Let us take away the hassle of making all the tour arrangements.

Peace of mind. Not only does Naturetrek offer the world's largest selection of wildlife holidays, but a higher level of financial security and insurance cover than any other wildlife tour operator, fulfilling the licence, bonding and insurance requirements, not just of the CAA, but also ABTA, AITO, ABTOT and IATA, of which we are members. So, in the unlikely event of our insolvency, you will not be left stranded abroad, and any money you have paid to us in advance will be refunded.

Today, no other tour operator anywhere in the world operates more dedicated wildlife holidays each year than we do at Naturetrek. That's testament, we hope, to our friendly and knowledgeable Hampshire-based staff, our carefully crafted itineraries, our personable and expert tour leaders, and the close relationship we have forged with a host of top quality and like-minded overseas partners and suppliers.

With over 30 years of experience in running exceptional birding, botanical and natural history tours, Naturetrek is in a unique position to be able to offer the widest choice of private group itineraries available. Don't just take our word for it! Here are some examples of the private groups we have arranged in the last year or so; Guildford RSPB Local Group took 40 members on a relaxed birdwatching holiday to Extremadura in Spain; Northumbria Natural History Society took 14 members to southern Portugal to enjoy spring birds and flowers, flying direct to Faro from Newcastle; Lancaster RSPB Local Group took 15 members to the Picos de Europa in Spain to enjoy birds and wildflowers; Bristol Ornithological Society took 16 members on a birding holiday in Iceland; Sevenoaks RSPB Local Group took 16 members on a birdwatching holiday to Lesbos; Cambridge U3A have taken tours to Sicily and Estonia recently. If you would like to discuss a possible trip, please contact: David Phillips at Naturetrek (01962 733051, email davidphillips@naturetrek.co.uk), or Dave Smallshire (01626 853393, email davesmall@btinternet.com).

**Spotted Fly Catcher with
Banded Demoiselle by Gareth
Thomas. River Teme, June
2016.**



BDS Annual Meeting

The 34th Annual Meeting will be held on Saturday, 18th November 2017

The meeting is open to everyone to attend.

Venue is still to be confirmed.

(This will be announced via the e-newsletter and website and in Autumn Dragonfly News, Iss.72)

The day starts with coffee at 9.30 am for a 10.00 am start, and ends at 4.30pm

The full programme will be announced when finalised, on the website and in the Autumn edition of Dragonfly News (DN72).

The day will include topics of local, national and international interest.

Please note, if you have a suggestion and the name of a willing person to deliver a talk we will try and accommodate that in the programme – please contact the Secretary.

AGM

Notice is hereby given that the 30th Annual General Meeting of the British Dragonfly Society will be held on Saturday 18th November 2017. The venue will be announced via the e-newsletter & website, and in Autumn Dragonfly News magazine (DN72).

Dragonfly, Butterfly and Moth Tours Bulgaria 2017

High Summer Butterfly & Dragonfly Tour,

26 July–6 August

Price: £1,400 12 days

with Nick Greatorex-Davies and local expert Tihomir "Tisho" Stefanov in Rila and Pirin, the highest mountains in the Balkans.

Among the many dragonfly species we hope to see that are absent or rare in the UK are: Epallage Fatime, Eastern Spectre, Balkan Goldenring, Sombre Goldenring and Black Pennant

Also ask for late availabilities on some of our other tours:

Midsummer Butterfly and Moth Tour,

14–23 July

Price: £1,300 12 days

with Martin White in some of Europe's best butterfly sites in the Rhodopes in S Bulgaria and N Greece

Autumn Migration Birdwatching Tour to the Black Sea Coast,

11–18 September Leader: Assen Ignatov

Price: £990

Once again we are happy that Ann Scott will be participating in this tour! She looks forward to welcoming friends old and new.



www.b-bs.org.uk; www.balkaniatravel.com: Email ognian@balkaniatravel.com
Phone: Balkania Travel 020 7536 9400





Welcome to the new Young Naturalist's section of Dragonfly News! Here, you will find articles written by other young people, interviews, fascinating facts and much more.

Dragonflies and Me...Nick Baker

Nick Baker is a naturalist and television presenter well known from his appearances on Children's BBC's 'The Really Wild Show' and BBC Springwatch and Autumnwatch Unsprung.

Why did you first become interested in dragonflies?

I can't remember precisely – but I was very young, I probably first encountered the larvae when I was out catching newts. The lumbering, monstrous predators had everything to pique a young boy's imagination and I kept them in a tank in my shed – where I got a lot of pleasure watching them gobble up earthworms. One of them emerged during its captivity and I remember being spell bound at something so big and dazzlingly beautiful. A miracle of an animal that contrasted so much with its 'ugly awkward child'.



© Keith Noble

Emerging Southern
Hawker Dragonfly

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

I live on Dartmoor and it has to be the simple almost graphical lines of the Golden-ringed Dragonfly. Its an insect that loves the fast flowing, clean gravel streams of the Moor and the adults can be seen zinging over the heather quite late into the year. I also have a special place for the Banded and Beautiful Demoiselle – these are the dancing stream fairies of my lowland childhood and they always take me back to lazy days with a fishing pole in my hand.

What is your best memory of a dragonfly/damselfly encounter?

I found a Broad-bodied Chaser at school, it was dead. It was a perfect specimen in every way. I scooped it up and took it home in my wooden pencil case (after the rightful contents of pencils and pens had been tipped out into the bottom of my satchel). I carefully arranged its body on some tissue paper on my windowsill when I got back from school. After tea I remember going to look at it only to be buzzed by a now very much alive and healthy

dragon – it had come back to life! I remember the mixed emotions of opening the window to let it go – happy I had given it a second chance but sad I had lost a beautiful specimen for my collection of natural history curios (all obtained in ethical ways).

What is your favourite dragonfly fact?

It has to be that the larvae can breathe through their bottoms (their gills are in their anal cavity) and it enables them to use jet propulsion by forcing the same water out at high speed – something I would love to be able to do in the bath.

What is your favourite place to watch dragonflies?

Anywhere there are Dragonflies and Damselflies – usually it'll be a still, lazy summer day by a pond – where I can watch them twinkle in the sun and it's also the best place to see them fight, feed, mate, and lay eggs.

What one thing do you think people should do for dragonflies?
Build a pond!



© David Kitching

Male Broad-bodied Chaser

FACTFILE: THE CAUDAL LAMELLAE



Common Blue Damselfly larva © Christophe Brochard

These tail-like structures found on the end of the abdomen of larval damselflies helps them to swim.

The caudal lamellae also act like gills, allowing larvae to breathe underwater.

Damselflies often lose their caudal lamellae but they have the neat trick of being able to grow them back!

Dragonflies at Morton Lochs

Ruari Dunsmuir

I have always loved the nature and the outdoors and having finished university I was looking for a more practical route into the conservation sector. In the end I decided to attend SRJC Elmwood College to study Countryside and Environmental Management. After the course I progressed into a year-long Student Placement with Scottish Natural Heritage at Tentsmuir National Nature Reserve (NNR). This was the perfect opportunity to put into practice all that I'd learnt at college while also providing me with a fantastic environment for further learning and progression.

Starting work at Tentsmuir NNR during the summer gave me the chance to undertake Dragonfly surveys around Morton Lochs. And I have to say it was one of my most enjoyable jobs.

Morton Lochs is one of Scotland's Dragonfly Hotspots and rightly so as on a calm sunny day the place is swarming with Dragonflies on and around the water and paths. When I was first tasked with the survey it was a bit overwhelming to begin with due to the sheer numbers present. After I attended a BDS Dragonfly workshop I was much more confident and with a bit of patience and experience it became easier and easier to identify and count individual species.

By far the most common species found at Morton Lochs is the Common Darter. Other species that I have seen include: Four-Spotted Chaser, Red-Veined Darter, Common Hawker, and Black Darter, as well as Large Red Damselfly, Common Blue Damselfly, Emerald Damselfly, and Blue-Tailed Damselfly.

It is a pleasure to be able to see all of these species, though the most thrilling experience so far was witnessing the electric blue Common Hawker hunting on the wing, taking Common Darters as they were laying their eggs. Not only was this a mesmerising sight but the sounds of the Hawker's wings and when it caught its prey were remarkable.

The main aim of such surveys is to keep a record of changes in Dragonfly numbers which can highlight how well they are faring on the NNR and if there are any necessary changes in conservation policies required.

I have always enjoyed the sight of Dragonflies and now with the knowledge and experience I have gained participating in the surveys, I honestly cannot wait for the warmer weather this year and the chance to go out and see these amazing Creatures.



Four-spotted Chaser © Ruari Dunsmuir

Make an...Ice Lolly Stick DragonFLY

YOU WILL NEED: three ice lolly sticks, paint, PVA glue.

GLUE two ice lolly sticks to the third, placing them diagonally cross each other. **Wait** until the glue has dried, then paint.

EXTRAS: IF you have googly eyes, stick these to the head to make the eyes. Alternatively you could use beads or buttons!



members' gallery

In this edition of Members' Gallery, I have chosen my favourite images posted on the BDS Flickr group during 2016.

1) Ovipositing Migrant Hawker by Jon Mee.

2) Close-up of a female Southern Hawker by Alan Woodward.

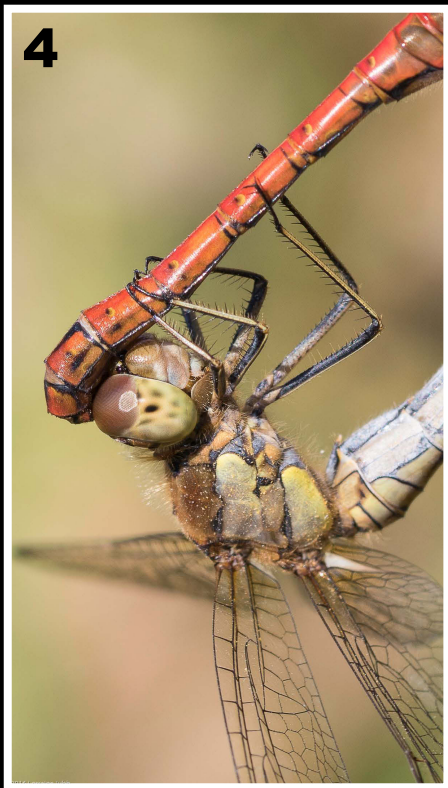
3) Group ovipositing White-legged Damselflies by David Cooper.

4) Mating Common Darters by Lorraine Jubb.

5) Southern Hawker in flight by Andy Brown.

6) Common Darter catching prey with its mouth by Graham Hobbs.







The vast majority of sites worth visiting to see dragonflies are associated with water. While dragonflies can be encountered in unusual and unexpected places, such sightings are usually unpredictable and irregular. However, *Brian Walker's* local woodland site with no regular water body holds significant numbers of dragonflies in late summer.

The site is a small (about 5.3 hectare) poplar plantation, roughly triangular in shape to the east of the village of Grove and lying between the main A338 road and the line of the old Wilts-Berks Canal. The canal is now overgrown, with water only present in isolated puddles after heavy rain. There are agricultural fields beyond the line of the canal. It is within walking distance of my home and walking through it in August a few years ago I was surprised to see quite a number of Common Darters as well as a few Southern Hawkers and Migrant Hawkers. I have encountered these species there in each of the following years, with a peak count of 92 Common Darters on 7 August 2016.

The Common Darters are concentrated along a length of path between the wood and the overgrown canal which is only about 300m in length. The Hawkers also occur here, but occur a little more widely on adjacent paths. The key path runs roughly north east to

south west and there are patches of Hogweed stems and other potential perches that are sunlit around mid-day. The Darters use these as perches and this provides a good opportunity for photography, which is why I keep returning to the site. I have never seen a fully adult male or any attempt at pairing and most individuals are very clearly immature, with a majority seeming to be females, although I have not done a systematic count. My assumption is that they are using the area to mature before returning to ponds to breed.

I have done a little research to see whether this is well known behaviour and could find little information. I was surprised to learn that dragonflies can take several weeks to mature and the period can be affected by the weather, being lengthened in both unusually cold and hot conditions. It is known that dragonflies move away from water to mature and this is understandable, but before I had really thought about it, I had always assumed that they did this

Brian Walker

on a solitary basis. I did not expect them to congregate in one area and use the same area over a number of years. I have not seen mention of this elsewhere or read of anything similar. It is intriguing to wonder whether they pass on some sort of memory or whether there is something about the area that draws in wandering dragonflies.

In 2016 I experimented with videoing the Common Darters. I noted that they often flew from a perch and returned to the same perch. I kept the camera running when one flew to try to get a film of it landing and was successful twice. At the time I was just pleased to get the video, but when I reviewed the film later, I saw that in both cases the Darter was "chewing" on an insect after it landed. It appears that they are not just resting on the perches, but using them as a lookout to hunt for prey.

Having read a recent article in "Atropos" by Steve Cham about the potential to use digital video recording to learn more about dragonfly behaviour, I studied my video clips in a bit more detail. The perched Darters remain very still on their perches and the only movement is an occasional movement of their head, either to tilt it or rotate it. In both the cases where a Darter flew and presumably caught prey, there was a head movement immediately before they took off. In one case they tilted their head down and took off before completing this movement. This dragonfly returned to its perch after five seconds. In the other case the insect rotated its head through a fairly large angle and then took off, returning after less than two seconds with prey. On this very limited evidence I think that the head movement is associated with locating and/or tracking potential prey and it would seem that it is a very successful strategy, with 100% success on my very limited sample.

The behaviour of the Hawkers is rather different. I see many resting, hanging down from a perch, often very low near the ground. I think these are just resting as I have seen no evidence that they are using the perch to observe prey. I took a couple

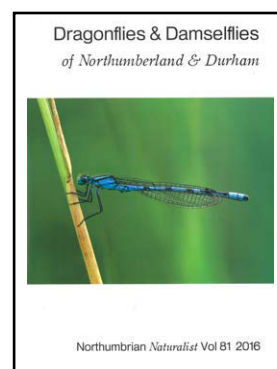


of videos of perched Hawkers but they show no movement and the video reveals no more than a still shot. I have seen them patrolling up and down the path and darting towards prey from time to time in the way that I have seen them do in other woods, although not in such a high density as here. It would seem that they have a feeding strategy here is different to that of the Darters.

I plan to take rather more interest in this site in the future. There is a risk that the path will become more overgrown and shade out the areas the dragonflies favour. This has already happened to some extent. It is a commercial plantation and two years ago the undergrowth was cleared through to the path in mid-August. This removed most of the stems that were being used as perches and the Darters virtually disappeared immediately in that year. Numbers tend to tail off quite quickly anyway and at the time I did not think much about it, but I now wonder if the availability of sunlit perches from which they can hunt is a key factor to its attraction. It may be that the same conditions also attract potential prey. At some point the trees are likely to be harvested and a field to the north has recently been planted out with poplars, presumably as a replacement. There is the potential for a similar patch of habitat to develop here and it would be interesting to see if the dragonflies move to this area in a few years. There are certainly plenty of opportunities for further study. I wonder if I can use a wider view to video a Common Darter catching its prey. It will be a challenge to get a view point that will not lose the dragonfly in a cluttered background.

DN

Review



The Dragonflies and Damselflies of Northumberland and Durham

by Harry Eales.

Published by The Natural History Society of Northumbria.

67 pp, full colour, softback.

Price £6.00 + £1.50 p&p

[www.nhsn.ncl.ac.uk/publications/publications-for-sale/dragonflies-](http://www.nhsn.ncl.ac.uk/publications/publications-for-sale/dragonflies-damselflies/)

[damselflies/](http://www.nhsn.ncl.ac.uk/publications/publications-for-sale/dragonflies-damselflies/)

ISBN

Review by Mark Tyrrell

National atlases are all well and good, but lack the detail that local atlases have and it is great to see that another County guide has been published. Northumbria is at the forefront of dragonfly expansion, as evidence in some of the historical reports accompanying the species accounts. In my own County, such historical data is sadly lacking and it is especially welcome here where species expansion is so important. It is fascinating for me to read that the Migrant Hawker has limited range (there are thousands here in Northants), and that the Hairy Dragonfly (my personal favourite) isn't yet proven to breed.

This guide concentrates on the species accounts, which after all are what is really important to readers. Each one has detail on status, habitats, distribution, including a 2x2km resolution map - the area covered is too large for a 1x1km resolution in a guide like this - history and outlook.

It will be fascinating to see what the this atlas will look like in 10-15 years time.



FIELD MEETINGS & OTHER EVENTS

Reports compiled by **Mike Averill**

Each year the Society runs field meetings around the British Isles. These are advertised in the Spring issue of Dragonfly News and most reports appear in the Autumn issue. If you would like to run a meeting in your area please contact Mike for guidelines.

Saturday 27 May 2017

Charlecote Park, Warwickshire

Contact: Peter Reeve (01926 632400) email: peter@reeve60.org.uk. Contact number on the day only: 07980064079

Aim: Charlecote Park is a National Trust property and the estate includes at least one pool and the rivers Dene and Avon run through it (see the National Trust website).

Some recording of dragonflies has been done in the Park. Of particular interest is the Scarce Chaser that was first recorded on the Avon in the Park in 2015. The species has a two year life-cycle and a target of the meeting will be to search for emerging individuals/exuvia to prove breeding at this point on the Avon.

Meet: Meet for an 10.30am start at the National Trust car park. Grid ref. SP263564; post code CV35 9ER. For map see the meetings page on: www.warwickshire-dragonflies.org.uk.

Note: There may be a parking charge for non-members of the National Trust.

Requirements: Bring lunch, strong footwear.

Sunday 28 May, 2017

Stover Country Park and Little Bradley Ponds, Devon

Leader / contact: Dave Smallshire (01626 853393; email: davesmall@btinternet.com)

Aim: Spring dragonflies at two of their prime sites in Devon. The focus will be on local specialities: Hairy Dragonfly and Downy Emerald.

Meet: 10:00 a.m. at the visitor centre (SX833751; postcode TQ12 6PW; entrance off A382 to Newton Abbot, 300m from A38, 10 miles from M5) finishing by 4:00 p.m. Public transport: buses from locations including Newton Abbot and Exeter stop at Trago Mills or Drum Bridges roundabouts. A cycle route links Stover with Bovey Tracey and Newton Abbot.

Requirements: Bring lunch. Close-focus binoculars and wellies useful. Pay and display car park. Advance booking not necessary.

Saturday 10 June 2017

Paxton Pits, Cambridgeshire

Contact: Peter Reeve (01926 632400) email: peter@reeve60.org.uk. Contact number on the day only: 07980064079

Aim: Paxton Pits is a reserve of special interest to dragonfly enthusiasts. It is the most westerly known breeding site for the Norfolk Hawker. The Warwickshire Group organised a meeting to see the Norfolk Hawker in 2015 but were unlucky because of the atrocious Weather. This is another opportunity for those of us who rarely see it to get more familiar with the species.

Paxton Pits has a rich and interesting dragonfly fauna including Variable Damselfly and Scarce Chaser. In addition to dragonflies there is much else of natural history to see - and hear. With luck, there will be singing Nightingales.

Meet: Meet at the visitors centre for an 11.00am start. Grid ref. TL196629; post code PE19 6ET.

For map see the meetings page on: www.warwickshire-dragonflies.org.uk.

Note: There may be a parking charge.

Requirements: Bring lunch, strong footwear.

Sunday 11 June, 2017

Seaton Wetlands and Axe Valley

Leader / contact: Dave Smallshire (01626 853393); email: davesmall@btinternet.com

Aim: A joint meeting with the Devonshire Association Entomology Section to look at species of ponds and the River Axe. Targets: White-legged Damselfly and Scarce Chaser.

Meet: At 10.00 a.m. at Seaton Wetlands car park, which is via the cemetery entrance off Colyford Road between Colyford and Seaton (nearest postcode EX12 2SP, grid reference SY248914). Public transport: buses to Seaton from Exeter and Honiton.

Requirements: Binoculars will be helpful. Booking not necessary. Bring lunch if you wish to stay for the afternoon, when, weather permitting, we will look at the River Axe and Lower Bruckland Ponds, finishing at about 4.00 pm.



Sunday, 11 June 2017**Timble Ings, North Yorkshire (SE156528)****Leader/Contact:** Tom Hubball 01535 678334 email vc64dragonfly@virginmedia.com**Aim:** To see how the extensive range of dragonfly ponds are maturing and to introduce new visitors to the various areas of this extensive site.**Meet:** 10.30am at Swinsty Reservoir Car Park (Grid Ref: SE186537 - SatNav: LS21 2NP) off A59 Harrogate-Skipton road. We will car share to Timble Ings as parking there is limited.**Requirements:** Bring lunch, binoculars and wear appropriate footwear and clothing.Details of other Yorkshire Dragonfly Group field trips can be found on the Diary pages both the BDS and YDG websites (<http://www.yorkshiredragonflies.org.uk>)**Saturday 17 June 2017****Low Barns****Leader:** Ian Waller

Target species: spring dragonflies.

Meet at 10.30am at grid reference NZ16093146 (DL140AG) in the large car-park. For additional details and to let me know you are coming contact Ian Waller. Email: aeshna@hotmail.com**Saturday 17 June 2017****Woodwalton Fen****Aim:** To see as many dragonflies as possible on this site**Meet:** Jacksons Bridge at 11.00am OS Map 142 Grid ref TL235848 (Parking along Great Raveley Drain)**By Car:** Woodwalton Fen can be reached by car on minor roads from the B1040, B1099 or A 141. Parking is alongside the Great Raveley Drain close to the entrance of the reserve. Turn right before the entrance bridge and park along the edge of the bank. Parking is not suitable for coaches.**By Train:** There are mainline train stations at Peterborough and Huntingdon.**By Bus:** There are bus services from Peterborough to Ramsey Heights. Visit Peterborough City Council website for further details www.peterborough.gov.uk**Requirements:** Bring packed lunch, binoculars, insect repellent and wear appropriate clothing and footwear. No toilet facilities on site. Everybody welcome. Children must be accompanied by an adult.**Contact/ Leader:** Mick and Sue Parfitt **Tel: 01733 266087-Mob 07745241061. email mjparfitt@btinternet.com****Saturday 17 June 2017****Lochan Dubh (Cemetery Loch) Oban Argyll****Leader / contact:** Pat Batty 01546605316 dragonflybatty@gmail.com**Aim:** To update records for a priority site and give training in identification of adults and larvae Hairy dragonfly, Downy Emerald, Variable damselfly present. Possible visit of Moss of Achnacree White-faced darter site in pm**Meet:** 10:30 am Cemetery car park NM86703154 (Post code PA345TU), just N of Oban (E side of A85) finish approximately 4:00pm. 1Km from Oban and 2km from Oban train station (005 or 405 West Coast Motors Bus from Oban to Dunbeg). Lift could be arranged.**Requirements:** Bring boots/wellies, packed lunch (colander/net plastic spoon, hand lens). Pre-booking essential. All welcome**Saturday 17 June 2017****Yardley Chase, Northants****Aim:** To watch the Downy Emerald in its only breeding site in Northants, in this private estate.**Leader/Contact:** Mark Tyrrell, email mark.p.tyrrell@gmail.com or tel 01933 389748 (07736491127 on the day)**Info:** Please bring packed lunch. There are no toilet facilities. Wear stout boots but the walking is flat and easy. **This trip is limited to 12**, so book early as it always fills up quickly. Full joining instructions will be sent 1 week before.**Saturday 24 June 2017****River Wey at Froyle, Hants****Meet:** 10:30 at Mill Farm, Isington Rd, Froyle, GU34 4PN at SU 7744 4258 and on Google Maps.

Bring lunch or buy from the café.

Leader: Bill Wain. Hoping to see Scarce Chaser.**Other notes:** Tony Mundell is also leading a bioblitz for plants there 25th-28th July. We visited Isnage Farm, to the North of the Wey, in 2009.

Saturday 8 July 2017**New Forest at Latchmore**

Meet: 10.30 at Ogdens Car Park MR: SU 182 124. Access to car park involves crossing a potentially very muddy farm yard. Level walk of around two miles which involves crossing a shallow stream. No netting is allowed. Bring lunch. (Access by public transport is hard. Contact the event leader.)

Target species: Southern Damselfly, Small Red Damselfly, Scarce Blue-tailed Damselfly.

Leader: Peter Allen

Saturday 8 July 2017**NWT Upton Fen, Norfolk**

(Joint meeting with Norfolk Wildlife Trust Broadland Group)

Leader / contact: Dr Pam Taylor – Norfolk Dragonfly Recorder. Email: pamtaylor@british-dragonflies.org.uk to book or phone 01692 670311

Aim: Morning walk to look for a broad range of dragonfly species, including Norfolk Hawker and Variable Damselfly.

Meet: 10.00am at Upton Fen car park, TG379136. Postcode NR13 6EQ (Low Road). From Acle, Norwich or Wroxham head towards South Walsham, then follow signs for Pilson Green. Local public transport services are limited. The nearest train station is Acle (3.5 miles). Konnect Bus 51 serves Pilson Green from Norwich.

Requirements: Booking essential – preferably by email. Numbers strictly limited. Wellies or boots, insect repellent. Packed lunch if staying on site (unguided) for the afternoon.

Saturday 22 July 2017**Chobham Common, Surrey**

Meet: 10:30 at the Staple Hill car park SU 973 648, south of the M3, 1.3km NE of B383 Windsor Rd. KT16 0ED. or 10:10 at Longcross Station

Aim: Joint meeting with the local Butterfly Conservation group. For Grayling and assorted Dragonflies.

Requirements: Bring lunch; wellies optional. No facilities nearby.

Leader: Francis Kelly (07952 285661)

Sunday 23 July 2017**Exeter Canal, Countess Wear, Exeter**

Leader / contact: Dave Smallshire (01626 853393); email davesmall@btinternet.com

Aim: Joint meeting with the Royal Society of Biology to look for Red-eyed and Small Red-eyed Damselflies.

Meet: At 10.00 a.m. in the rowing club car park at SX941894 (EX2 7BB) (turn left off the A379 westbound, immediately before the swing bridge), finishing around 12.30 with optional lunch at the Double Locks. Public transport: buses from locations including Exeter city centre stop at or near Countess Wear roundabout. A cycle route follows the canal from Exeter Quay.

Requirements: Binoculars desirable.

Sunday 23 July /30/5/6 July/August 2017]**North Dartmoor Blanket Bog**

Leader / contact: Dave Smallshire (01626 853393; email davesmall@btinternet.com

Aim: To record upland species such as Black Darter and Common Hawker in a remote area of blanket bog.

Meet: 10:00 a.m. in the rowing club car park at SX941894 (EX2 7BB) (turn left off the A379 immediately before the sing bridge), finishing around 12:30 with optional lunch at the Double Locks.

Requirements: Pre-booking is necessary through Dave Smallshire and numbers are strictly limited, as transport is arranged to gain access to the area. Wellies or other waterproof footwear will be essential. Bring food, drink and suitable outdoor clothing.

Saturday 29 July 2017**Pitmaduthy Moss, Easter Ross**

Leader / contact: Jonathan Willet 07740 216595

Aim: To re-discover the whereabouts of the elusive White-faced Darters in this area and to explore a seldom visited bog area.

Meet: 09:30. At the car park at the Tomich Restaurant NH699709, (Post Code IV18 0LF), it is just off the A9 to the north of Invergordon. We will car share from there to the site, which is ten minutes drive away. There is a train station in Invergordon and a pick up from there can be organised.

Requirements: The day will be spent on rough boggy ground with no paths, so boots/ wellies, waterproofs, midge net/ repellent and packed lunch required. Colanders and plastic tubs for catching and viewing larvae would be handy. There are no toilets on site. At the end of the day we will head back to The Tomich Restaurant and have a cup of tea there.

Saturday. 5 Aug 2017**Coatham Stob between Long Newton and Urray Nook, Northumberland****Leader:** Ian Waller**Aim:** To see late summer dragonflies.**Meet** at 10.30am at grid reference NZ39561538 (TS16 0QQ) in the large free car-park between Long Newton and Urray Nook.**Requirements:** Bring a packed lunch. This is a large site and it will involve walking to visit several ponds. For additional details and to let me know you are coming contact Ian Waller. Email: aeshna@hotmail.com**Saturday 12 August 2017****Abbey Green Park, Polesworth and Alvecote Pooley Fields, Warwickshire.****Contact:** Peter Reeve (01926 632400) email: peter@reeve60.org.uk. Contact number on the day only: 07980064079**Aim:** The Abbey Green Park is beside the River Anker. During the winter 2013/2014 a significant amount of work improving the water bodies on the site was undertaken by the council, in consultation with the Warwickshire Wildlife Trust. At a field meeting in 2015 nine species were recorded. The aim of this meeting is to see what is here in late summer and, hopefully, to extend the site species list. There is an additional exciting possibility. The River Anker here is ideal habitat for Willow Emerald. Might we find the first individual of the species in Warwickshire at the meeting? The nearest record for the species is only about 25 miles to the east. Depending on available time, a visit may be made to nearby Alvecote Pools.**Meet:** for at 10.30am start at the Abbey Green car park. Grid ref. SK262021; post code B78 1HB. For map see the meetings page on: www.warwickshire-dragonflies.org.uk.**Requirements:** Bring lunch, strong footwear.**Sunday 13 August 2017****Thursley & Elstead Commons, Surrey****Meet:** 10:30 at The Moat car park, SU 8995 4162. Limited parking; please team up if possible. or 10:10 at Milford Station. Target species: Black Darter, Brown Hawker.

We'll be keeping to the tracks and board walks on this NNR but there is some rough and wet ground. Walking boots recommended. No facilities nearby; bring lunch.

Leader: David Hepper (07768 452365)**Identification Courses****Saturday 8 April, 2017****Preston Montford Field Centre, Shropshire****Aim:** Dragonfly Larvae Workshop with County Recorder Sue Rees Evans. Aimed at beginners this course will commence with an introduction to dragonfly larvae and the part they play in the dragonfly lifecycle. Indoor practical sessions will then focus on the identification of exuviae. After lunch the afternoon will be spent out and about at the field centre dipping in ponds and practising some hands on identification.**Meet:** Please report to reception at Preston Montford Field Centre (SJ433143). The workshop will start at 10.00am and finish at 4pm. For further directions see www.field-studies-council.org/centres/prestonmontford.aspx.**Requirements:** Packed lunch. Wellies/walking boots and waterproofs as we will be venturing out! Total walking will be no more than 1km. Larval identification guides and hand lens if owned.**Contact:** For further details and booking please contact Preston Montford Field Centre Tel: 01743 852040 or email: enquiries.pm@field-studies-council.org**Cost:** £40. **NB:** For those who wish, the 'Field Guide to the larvae and exuviae of British Dragonflies' by Steve Cham will be available for purchase at £10 (correct cash/cheque only).**Saturday 13 May 2017****Brandon Marsh Nature Centre, Warwickshire****Dragonfly adult identification and recording workshop.****Contact:** Peter Reeve (01926 632400) email: peter@reeve60.org.uk. Contact number on the day only: 07980064079.**Aim:** Indoor and outdoor identification sessions will be held at the Warwickshire Wildlife Trust Nature Centre. How to record dragonfly presence and behaviour in the field and the recording protocol to use, as recommended by the British Dragonfly Society, will be discussed. There is no charge but it is hoped participants will join the county team of dragonfly recorders. Refreshments are included but not lunch.**Meet:** for a 10.30am start in the Barn at the Nature Centre, Coventry, Warwickshire CV3 3GW Grid ref. SP385758. For map see the meetings page on: www.warwickshire-dragonflies.org.uk.**Requirements:** Bring strong footwear, lunch or eat at the Nature Centre café.

Saturday 10 June 2017

Jupiter Urban Wildlife Centre, Wood Street, Grangemouth, Falkirk, FK3 8LH.

Leader / contact: Daniele Muir. Run in conjunction with the Scottish Wildlife Trust.

Aim: Join us for a bio-blitz event at Jupiter Urban Wildlife Centre to record as much of their urban wildlife as possible. We will be looking for both adult dragonflies and larvae.

Meet: At Jupiter Centre. There will be two sessions, from 10am – 12pm and 2pm – 4pm.

The nearest train station is Falkirk Grahamston which is 2.5 miles away. From there take the number 3, 4, 4a or 4b bus, (run by First South East and Central Scotland) for 10 stops, getting off at Newlands Garage and walking 0.4 miles down Wood Street. Follow the brown tourist signs to Jupiter.

Requirements: Bring waterproofs. All kit will be provided. All welcome – free to SWT members but there is a charge for entrance to the centre for non-members. No need to book. Contact SWT on falkirkranger@scottishwildlifetrust.org.uk

Tuesday 13 June and Tuesday 15 August, 2017

National Trust Carding Mill Valley, Shropshire

Aim: Discovering Dragonflies- this year Shropshire County Recorder Sue Rees Evans is running 2 dragonfly identification workshops at Carding Mill Valley. Aimed at beginners participants will learn to identify a range of species throughout both sessions. Classroom inputs during the morning will focus on identification of dragonflies (session one) and damselflies (session two). Following a brief lunch the afternoons will be spent outside at 2 different locations on the Long Mynd putting identification skills to the test.

Meet: Please report to the National Trust's chalet pavilion at Carding Mill Valley, Church Stretton, Shropshire, SY6 6JG. The workshop will start at 10am and finish at 2pm. For further directions see www.nationaltrust.org.uk/carding-mill-valley-and-the-long-mynd

Requirements: Packed lunch essential. Wellies/walking boots and waterproofs as we will be venturing out! Total walking will be no more than 1km. Identification guides and hand lens if owned.

Contact: Booking essential via Carding Mill Valley 03442 491895 or www.field-studies-council.org/centres/prestonmontford.aspx.

Cost: £10 per session. For those who wish, the latest 'Field Guide to the damselflies and dragonflies of Britain and Ireland' by D. Smallshire & A. Swash will be available for purchase at £17.95 (correct cash/cheque only).

NB: Weather permitting both afternoons will be spent at pools on top of the Long Mynd so some participants will need to drive and car sharing will be very much appreciated.

Saturday 24 June 2017 10am-4pm

Loch of the Lowes Wildlife Centre, Dunkeld PH8 0HH.

Leader / contact: Daniele Muir Run in conjunction with the Scottish Wildlife Trust.

Aim: Dragonfly & Damselfly ID Workshop, with an emphasis on Northern Damselfly

Would you like to find out how to identify species of Dragonfly and Damselfly found in Perthshire? If so, this workshop is for you! No prior experience or skill is necessary as the morning will be spent indoors learning the basics about ID and recording. We will then go to an outdoor location to have the chance to put your skills into practice.

Meet: 10am at Loch of the Lowes Centre. Free to SWT members but there is a charge for entrance to the centre for non-members. Stagecoach Service no 23 stops in Dunkeld which is 2 miles walk from the centre. The nearest train station is Dunkeld & Birnam which is 2.5 miles walk from the centre (Loch of the Lowes)

Requirements: Please bring a packed lunch and a drink. To get the most out of the workshop we suggest you bring a pen and notebook, plus any ID guides that you have. Please ensure that you wear sturdy shoes or boots for the afternoon session which is wholly out of doors whatever the weather. Please bring/wear suitable clothes for the changeable weather such as waterproof coat, sun hat, insect repellent and sun cream. **Booking essential on cfleming@scottishwildlifetrust.org.uk**

Introduction to Dragonflies and Damselflies

14-16 July, 2017

Preston Montford Field Centre, Shropshire

Aim: This course is aimed at all those with a desire to learn more about these stunning insects. You will be introduced close up to a good number of our Shropshire species of dragonfly and damselfly so that you leave confident in your own abilities to identify them and make species records. Classroom sessions on identification, life history, larvae and exuviae will be combined with a number of field visits to a range of aquatic habitats. This will allow you to put your skills into practice and to observe and understand the visual spectacle of these fascinating insects on the wing.

Tutor: Sue Rees Evans (formerly McLamb) is the County recorder for Dragonflies in Shropshire and Odonata Tsar for the Shropshire Ecological Data Network.

Location: Preston Montford Field Centre (SJ433143). For further directions see www.field-studies-council.org/centres/prestonmontford.aspx. The course will start on Friday evening and finish on Sunday late afternoon.

Contact: For further details and booking please contact Preston Montford Field Centre Tel: 01743 852040 or email: enquiries.pm@field-studies-council.org

Cost: £275 (residential)

NB: For those who wish, the latest 'Field Guide to the damselflies and dragonflies of Britain and Ireland' by D. Smallshire & A. Swash will be available for purchase at £17.95 and the 'Field Guide to the larvae and exuviae of British Dragonflies' by Steve Cham will be available for purchase at £10 (correct cash/cheque only).

Saturday 29 July, 2017 at 10am-4pm**Bishops Wood FSC Field Centre, Worcestershire**

Aim: Dragonfly enthusiasts of all levels of ability are welcome to come along and learn more about these stunning insects. The day will start with a classroom session introducing this group of insects and focusing on their identification. We then head outside to the pools at the centre and hopefully introduce you close up to a good number of local species.

Tutor: Sue Rees Evans (formerly McLamb) is the County recorder for Dragonflies in Shropshire and Odonata Tsar for the Shropshire Ecological Data Network.

Location: Bishops Wood Field Centre. For further directions see www.field-studies-council.org/centres/bishopswood.aspx

Contact: For further details and booking please contact Bishops Wood Field Centre Tel: 01299 250513 or email: enquiries.bw@field-studies-council.org

Cost: £40

Requirements: Packed lunch. Wellies/walking boots and waterproofs as we will be venturing out! Total walking will be no more than 1km. Dragonfly identification guides and hand lens if owned.

NB. For those who wish, the latest 'Field Guide to the damselflies and dragonflies of Britain and Ireland' by D. Smallshire & A. Swash will be available for purchase at £17.95 (correct cash/cheque only).

Tuesday 8 August 2017**Discover Exmoor's Dragonflies**

Tutor: Dave Smallshire

Location: Pinkery Outdoor Education Centre, Simonsbath, TA24 7LL (SS723411).

BDS members are welcome. Learn the principles of dragonfly identification and field survey techniques. The day will consist of an indoor session in the morning, followed by fieldwork on nearby moorland in the afternoon.

Requirements: Bring lunch, wellies or similar footwear and outdoor clothing. Booking essential via: http://events.r20.constantcontact.com/register/event?jsessionid=CEA9209B95D186E79197786B943206A8.worker_registrant?llr=vjzs4adab&oeidk=a07ednx2jfd9367b3a1

Tuesday 15 August, 2017**National Trust Carding Mill Valley, Shropshire**

Aim: Discovering Dragonflies- this year Shropshire County Recorder Sue Rees Evans is running 2 dragonfly identification workshops at Carding Mill Valley. Aimed at beginners, participants will learn to identify a range of species throughout both sessions. Classroom inputs during the morning will focus on identification of dragonflies (session one) and damselflies (session two). Following a brief lunch the afternoons will be spent outside at 2 different locations on the Long Mynd putting identification skills to the test.

Meet: Please report to the National Trust's chalet pavilion at Carding Mill Valley, Church Stretton, Shropshire, SY6 6JG. The workshop will start at 10am and finish at 2pm. For further directions see www.nationaltrust.org.uk/carding-mill-valley-and-the-long-mynd

Requirements: Packed lunch essential. Wellies/walking boots and waterproofs as we will be venturing out! Total walking will be no more than 1km. Identification guides and hand lens if owned.

Contact: Booking essential via Carding Mill Valley 03442 491895 or www.nationaltrust.org.uk/carding-mill-valley-and-the-long-mynd

Cost: £10 per session. For those who wish, the latest 'Field Guide to the damselflies and dragonflies of Britain and Ireland' by D. Smallshire & A. Swash will be available for purchase at £17.95 (correct cash/cheque only).

NB: Weather permitting both afternoons will be spent at pools on top of the Long Mynd so some participants will need to drive and car sharing will be very much appreciated.

Saturday 19 August 2017 10am – 4pm**Kincardine Community Centre in the morning, Devilla Forest in the afternoon.**

Leader / contact : Daniele Muir. Run in conjunction with the Inner Forth Landscape Initiative <http://www.innerforthlandscape.co.uk/>

Aim: Dragonfly & Damselfly ID Workshop. Would you like to find out how to identify species of Dragonfly and Damselfly found in Central Scotland? If so, this workshop is for you! No prior experience or skill is necessary as the morning will be spent indoors learning the basics about ID and recording. We will then go to an outdoor location to have the chance to put your skills into practice.

Meet: 10am at Kincardine Community Centre, Anderson Lane, Kincardine, FK10 4SF. The Glasgow to Leven X27 Stagecoach stops at the High St in Kincardine, two minutes' walk from Kincardine Community Centre

Requirements: Please bring a packed lunch and a drink. To get the most out of the workshop we suggest you bring a pen and notebook, plus any ID guides that you have. Please ensure that you wear sturdy shoes or boots for the afternoon session which is wholly out of doors whatever the weather. Please bring/wear suitable clothes for the changeable weather such as waterproof coat, sun hat, insect repellent and sun cream. Booking essential on info@innerforthlandscape.co.uk



Dragonfly tours

Naturetrek

Dragonflies in South-west Turkey: 31 May to 7 June 2017 (Dave Smallshire)

Sardinia's Dragonflies: 4 to 11 June 2017 (Gerald Broddelez)

Dragonflies of La Brenne & Vienne, France: 14 to 21 June 2017 (Nick Ransdale)

Bulgaria's Dragonflies: 20 to 28 June 2017 (Dave Smallshire)

Dragonflies and Birds of the Camargue: 5 to 12 July 2017 (Dave Smallshire)

Romania's Wild Frontier - Dragonfly Tour: 1 to 8 July 2017 (local guide)

See www.naturetrek.co.uk or ring on 01962 733051.

Zoothera Birding

Sri Lanka: 10th to 20th November 2017 (local guide and Tom Bird)

See www.zootherabirding.com

Sunrise Birding

Coming soon: **Texas, South Africa, Panama, Minnesota**

See www.sunrisebirding.com

Odonatours

Vietnam: 2 to 16 June 2018 (Phil Benstead)

See www.odonatours.com

BDS BUSINESS

Minutes of the 29th Annual General Meeting, Nottingham Trent University, Brackenhurst Campus, 19 November 2016

Pre-amble

Nigel Scott presented a summary of recent changes to make the Society a Charitable Incorporated Organisation (CIO). From the ballot paper included with Spring mailing, 465 member votes agreed with this change with 1 against. The old charity closes at the end of March '17, and in the meantime both are running side-by-side.

The change to a CIO means that the BDS can separate the roles of Chairman and President and have allowed us to appoint Mike Dilger as the new president. The BDS can now elect Officers from within the Trustees, of which there can be up to twelve.

2. Mark Tyrrell was proposed as Minutes Recorder by the Trustees and appointed by a show of hands from the members present.

3. The Minutes of the previous AGM were published in DN69. They were adopted uncorrected by a show of hands from the Members present.

4. Apologies for absence were received from: John Winterbotham, Tricia Thompson, Graham & Gudula Walker, Peter & Gillian Mill, Sure Rees-Evans, Holly Stone, Peter Wigley, Simon Davidson, Robin Proctor, Kevin Edge, Dave & Sue Smallshire, Tom Hubball, Gill Lucas, Kari de Koenigsweter, David Chelmick.

5. One minutes silence was held for deceased members.

6. Greetings were sent to our patron Sir David Attenborough and Honorary Members.

7. Trustees reports

7.1 Secretary's Report
Total membership up to October stands at 1639.

7.2 Treasurer's Report
Copies of the Society accounts were distributed to attending members. Over the last two years the Society has received significant income from legacies. Expenses for producing Darter magazine are now included in the CONSOFF

expenditure for visibility to our funders. SNH were the Society's main funder NRW no longer provided a grant. Income is in line with expenditure. CONSOFF expenditure was 25% higher than 2015/16 while CONSOFF income was 5% lower.

Cash assets held by the Society are £330k.

8. Notice of the next AGM will be published in Dragonfly News 71.

9. Any other Business

The Spring Meeting, formerly the VCR's Meeting, is now open to all members. In 2017, this will be held on 11 March in Harrogate.

The World Dragonfly Association 2017 conference will be held 16-20 July in Cambridge.

10. There being no other business, the meeting was adjourned.

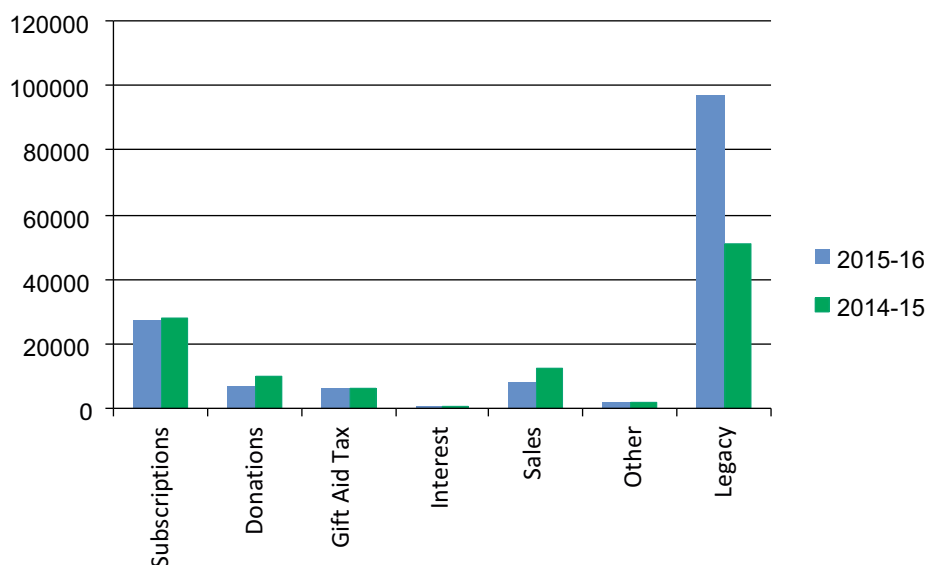


BDS Treasurer Brian Walker summarises the BDS accounts.

As reported last year we received the second part of a substantial legacy in 2015/16, as well as several smaller legacies. Legacies are becoming an important source of funding for us although they are by their nature somewhat erratic and unpredictable. However, we will work on the basis that we will continue to receive this type of funding to the extent of around £20,000/year and use it to develop and increase our conservation work in a planned way.

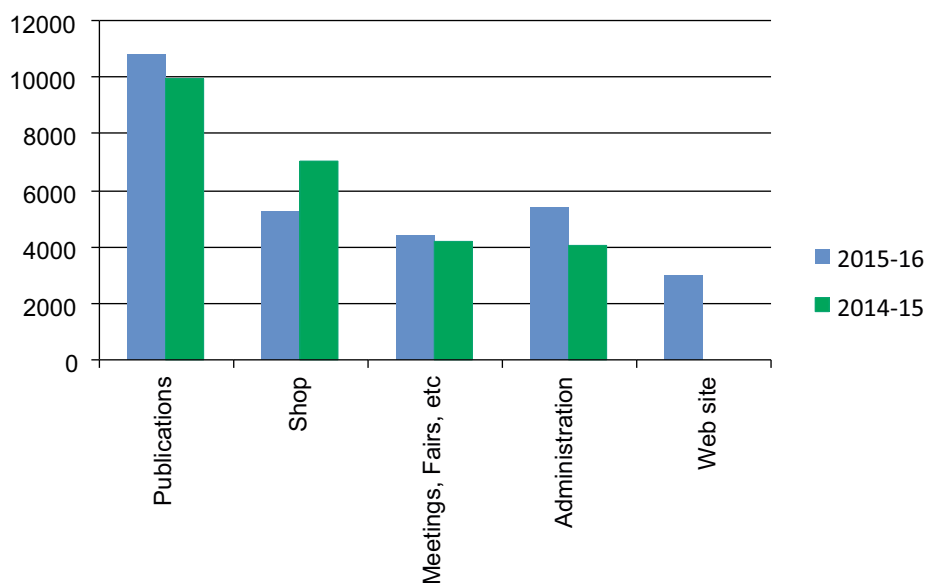
BDS Income

Income streams in 2015/16 were similar to previous years with donations and shop sales rather lower than in 2014/15. Donations are affected by a few larger donations and the timing of these can affect the position from year to year. Sales income was lower because there were few new dragonfly books published in the year and books produce the bulk of sales. As already noted we received just over £97k in legacies in 2015/16.



BDS Expenditure

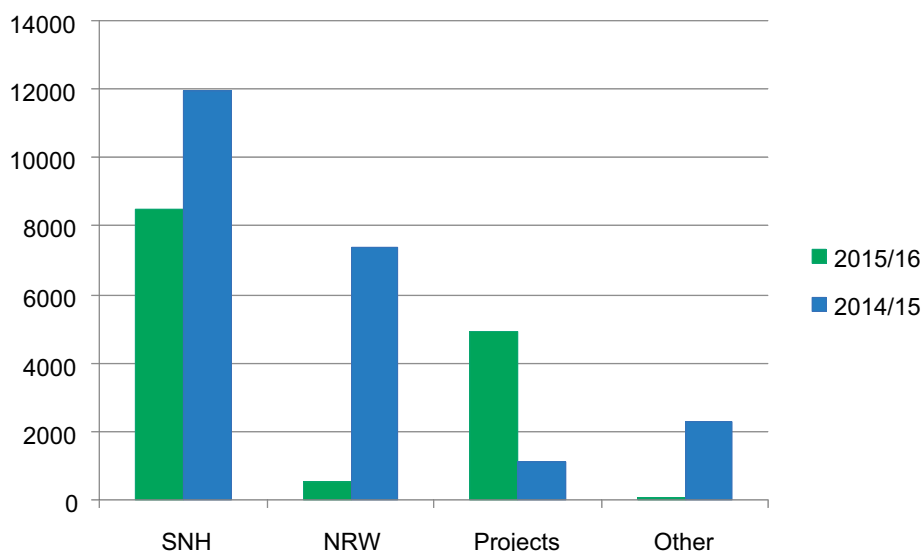
Expenditure was generally similar to the previous year with the cost of stock for the shop slightly lower, reflecting the reduce number of new books available. We had to carry out an essential upgrade to our website during the year and this increased total expenditure above that in 2014/15.



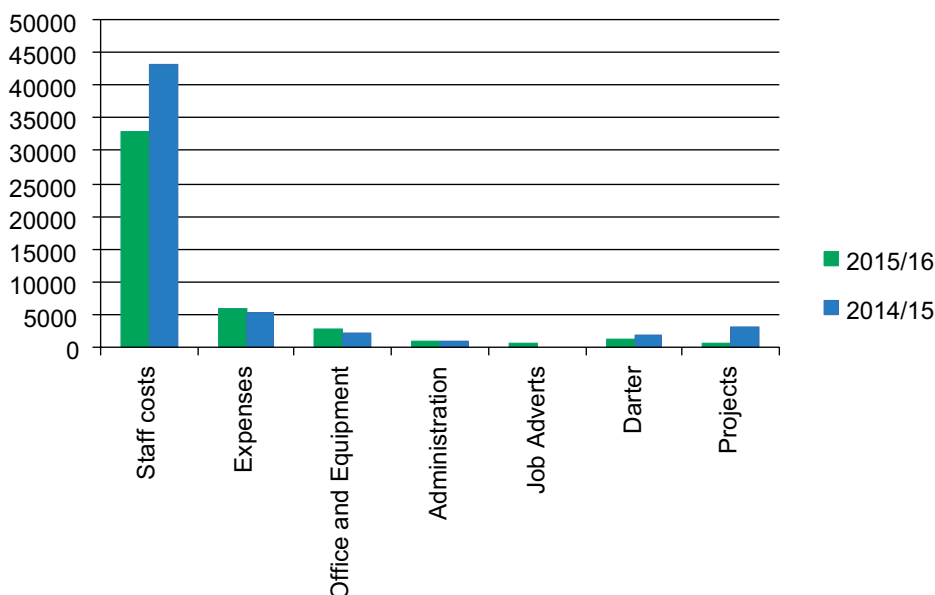
Restricted Income and Expenditure

Income was reduced as we only received funding from Scottish Natural Heritage. Our grant from Natural Resources Wales ended in March 2015. We continue to receive funding in kind from Natural England through them hosting our Conservation Officer in their Telford office. Expenditure was lower, mainly through reduced staff costs as there was a gap before Genevieve took up her post as our new Conservation Officer and we were without a Records Officer for a period.

Funding for our conservation activities comes from various funding sources as indicated above. Funding is not always received in the year in which expenditure is incurred, which makes direct comparisons difficult. In 2014/15 external funding and funds generated from subscriptions and donations met our conservation expenditure. In 2015/16 we had to draw on legacy income to meet part of the cost.



SNH = Scottish Natural Heritage
NRW = Natural Resources Wales



Simplified Balance Sheet

| | 2015/16 (£) | 2014/15 (£) |
|-----------------------------|-------------------|-------------------|
| Life Membership Fund | 31,893.57 | 31,893.57 |
| BDS General Fund | 306,105.97 | 212,750.78 |
| CONSOFF Fund | 15,000.00 | 15,000.00 |
| Total Cash Assets | 327,821.17 | 249,990.80 |
| | | |
| Stock Value | 6,940.13 | 7,245.58 |



Checklist of the Damselflies & Dragonflies of Britain & Ireland

Last Revision: 24/10/2014. in the light of taxonomic revisions. The sequence and nomenclature follow Schorr and Paulson, July 2013:

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

Table 1. Category A: resident and/or migrant species recorded since 1970

Species with well-established breeding populations and migrant species that have been recorded regularly since 1970, the latter often attempting to establish temporary breeding populations.

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

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

Table 2. Category B: vagrant species

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

| ZYGOPTERA | Damselflies | ANISOPTERA (cont'd) | Dragonflies (cont'd) |
|-------------------------|----------------------------|--------------------------------|-----------------------------------|
| Lestidae | Emerald Damselflies | Libellulidae | Darters, Chasers, Skimmers |
| <i>Sympecma fusca</i> | Winter Damselfly | <i>Crocothemis erythraea</i> † | Scarlet Darter |
| ANISOPTERA | Dragonflies | <i>Leucorrhinia pectoralis</i> | Large White-faced Darter |
| Aeshnidae | Hawkers | <i>Pantala flavescens</i> | Wandering Glider |
| <i>Anax ephippiger</i> | Vagrant Emperor | <i>Sympetrum pedemontanum</i> | Banded Darter |
| <i>Anax junius</i> | Green Darter | <i>Sympetrum vulgatum</i> | Vagrant Darter |
| Gomphidae | | | |
| <i>Gomphus flavipes</i> | Yellow-legged Club-tail | | |

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

Table 3. Category C: former breeding species not recorded since 1970

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

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

Guidelines for Contributors

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

Articles requesting information or providing news of forthcoming events are welcome. The editor is happy to receive material by email or CD, preferably in MS WORD (DOC file extension, not DOCX) or txt format. Typed material requiring rekeying is less welcome (unless very short!) but will still be considered. The Editor reserves the right to make changes without prior reference to the author. Please provide contact details with anything you send and note the copy deadlines printed on inside front cover if you want something to appear in a particular issue. Photographs should be high quality jpg format with the quality setting at its highest, please do not embed in a document as this compromises quality. If e-mailing via AOL, please compress (zip) the image first.

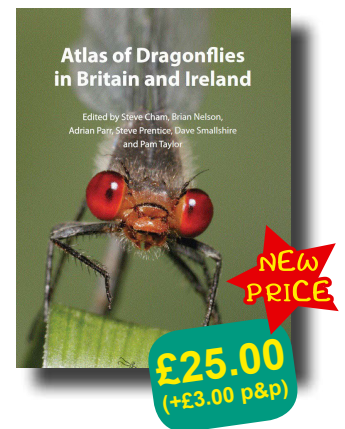


BDS Shop

To order goods, please contact Peter Brown, Hill House, Flag Hill, Great Bentley, Colchester, Essex, CO7 8RE, Tel 01255 823400, e-mail shop@british-dragonflies.org.uk or visit our web site (www.british-dragonflies.org.uk) to order on line. When ordering please include your name, address and telephone

number. Postage prices are indicated, but if you are ordering more than one item the highest postage price only (within reason) should be paid. Please allow at least 28 days for delivery. Cheques should be made payable to: British Dragonfly Society.

| Clothing | Colour | size | price | p&p |
|-----------------------------|----------------------------|------------------|--------|-------|
| BDS logo T-shirt | Natural, royal blue | S | £5.00 | £2.00 |
| T-shirt with small BDS logo | Natural | S, M, L, XL, XXL | £7.00 | £2.00 |
| Polo shirt | Bottle Green | S,M, XL | £12.50 | £2.00 |
| Rugby Shirt | Blue | S,M,L,XXL | £18.00 | £2.00 |
| Hooded Sweatshirt | Navy Blue | S,M,XXL | £15.00 | £2.50 |
| BDS logoed Sweatshirt | Grey with black logo | Large | £13.75 | £2.50 |
| BDS logoed Sweatshirt | Grey with embroidered logo | S,M,L,XL,XXL | £13.75 | £2.50 |
| Bush Hat | Sand or Olive Green | | £9.50 | £2.00 |



| Books & DVDs | Price | p&p |
|---|--------|-------|
| Field Guide to the larva and exuviae of British Dragonflies NEW PRICE | £7.50 | £2.00 |
| Spinning Jenny and Devils Darning Needles by Jill Lucas | £5.00 | £1.50 |
| Field Guide to the Dragonflies of Britain and Europe | £21.95 | £2.50 |
| Dragonflies of Hampshire NEW PRICE | £7.50 | £0.00 |
| The Dragonflies of Lancashire and North Merseyside. | £10.00 | £1.50 |
| Dragonflies and Damselflies of Hertfordshire | £10.00 | £2.00 |
| Dragonflight by Marianne Taylor NEW PRICE | £10.00 | £2.00 |
| Dragonfly by David Chandler and Steve Cham NEW PRICE | £7.50 | £2.50 |
| Dragonflies of Northamptonshire by Mark Tyrrell | £14.95 | £2.00 |
| The Dragonfly Diaries by Ruary Mackenzie-Dodds | £12.95 | £2.00 |
| Britain's Dragonflies by Dave Smallshire and Andy Swash (3rd Edition) | £17.95 | £2.00 |
| A Biology of Dragonflies (1983 re-print) by Philip S Corbet NEW PRICE | £7.50 | FREE |
| Field guide to Dragonflies and Damselflies of Great Britain and Ireland | £18.95 | £2.00 |
| Guide to the Dragonflies and Damselflies of Ireland by: Robert Thompson and Brian Nelson illustrations by Richard Lewington | £20.00 | £3.00 |
| Field Guide to Dragonflies of Hainan by Graham Reels | £20.00 | £3.00 |
| Dragonflies and Damselflies of the Serra dos Orgaos by Tom Kompier Price | £27.00 | £3.00 |
| Atlas of Dragonflies in Britain and Ireland NEW PRICE | £25.00 | £3.00 |
| The Dragonfly Friendly Gardener | £8.95 | £1.50 |
| Suffolk Dragonflies | £10.00 | £2.00 |
| The Dragonflies of Gloucestershire | £15.00 | £2.00 |
| For the Dragonflies & their Homes by Milen Marinov, Dan and Rosemary Powell | £5.00 | £2.00 |
| DVD Guide to Dragonflies of UK and Ireland by Paul Hopkins | £35.00 | £1.50 |
| DVD British Dragonflies by Graham Sherwin | £15.00 | £1.50 |
| DVD British Damselflies by Graham Sherwin | £15.00 | £1.50 |
| Both Graham Sherwin DVDs | £28.00 | £2.00 |

| Misc | Price | p&p |
|--|--------------|-------|
| BDS Mugs, Black Darter, Migrant Hawker, Scarce Chaser, Golden Ringed Dragonfly | £4.00 (each) | £2.00 |
| Set of all 4 BDS Mugs | £12.00 | £5.00 |
| Dunoon Harebell Mugs | £12.00 | £2.00 |
| BDS Key Ring | £1.50 | £0.75 |
| BDS Car Sticker | £1.00 | £0.50 |
| BDS Logo Pin Badge | £2.00 | £0.75 |

