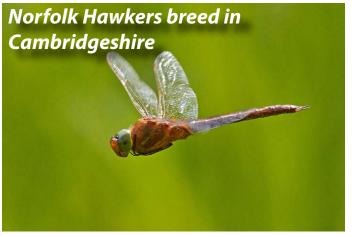


Dragonfly News 164

The Magazine of the British Dragonfly Society Autumn 2013 www.british-dragonflies.org.uk









Dragonfly News 64

The Magazine of the British Dragonfly Society

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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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Mark Tyrrell, 8 Warwick Close, Raunds,

Northants., NN9 6JH Tel.

e-mail:

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Trustees & Officers of the BDS

Chairman: Pam Taylor, Decoy Farm, Decoy Road, Potter

Heigham, Norfolk, NR29 5LX. Tel.

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Secretary: Henry Curry, 23 Bowker Way, Whittlesey,

Peterborough, PE7 1PY. Tel.

Treasurer: Brian Walker, 49 Roman Way, Wantage,

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Trustees: Alan Nelson, Mick Parfitt.

Journal Editor: Peter Mill, 8 Cookridge Grove, LEEDS,

LS16 7LH.

Shop Manager: Lynn Curry, 23 Bowker Way, Whittlesey,

Peterborough, PE7 1PY Tel.

Dragonfly Conservation Group (DCG)

Convenor: Dave Smallshire, 8, Twindle Beer, Chudleigh, Newton

Abbot, Devon, TQ13 0JP. Tel.

Members: Mike Averill, Steve Brooks, Steve Cham, David

Chelmick, Claire Install, Stephen Prentice, Adrian Parr,

Val Perrin, Ian Smith, Pam Taylor.

Corresponding Members: Tim Beynon, Norman Moore,

Charlotte Smith

Project Officers

Field Meetings Organiser: Mike Averill, 49 James Road,

Kidderminster, Worcs. DY10 2TR

Migrant Dragonfly Project: Adrian Parr, 10 Orchard Way, Barrow,

Bury St. Edmunds, Suffolk, IP29

5BX.

Conservation Officer: Claire Install, c/o Natural England (West

Midlands), Parkside Court, Hall Park Way, Telford, TF3 4LR. Tel. 0300 060 2338

'Dragonflies in Focus' Project Officer:

Stephen Prentice, c/o Natural England (West Midlands), Parkside Court, Hall Park Way, Telford, TF3 4LR. Tel. 0300 060 0647

BDS Web Master: David Hepper, 12 Three Stiles Road,

FARNHAM, Surrey, GU9 7DE. Tel.

David.Hepper@Local-Software.

co.uk

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British Dragonfly Society

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The President's View



Pam Taylor

I feel I must apologise because my last two columns in Dragonfly News have been a bit gloomy. This time I'm feeling much more hopeful about the future, even though we still have several obstacles to overcome. Whilst we continue to have an overall lack of funding for the Society, I have to say that we've also had much to celebrate in this our 30th Anniversary year. To begin with we've managed to secure a further year of grant aid from Natural Resources Wales, formerly known as the Countryside Council for Wales. This is the second year of a three-year funding programme. Using the grant we've run two further dragonfly courses at WWT Llanelli and Rhydymwyn, near Mold, started a rolling programme of surveys for Southern Damselfly and begun to use our atlas data to identify Key Sites for dragonflies within Wales.

We also obtained another grant from Environment Wales, funded by the Welsh government. This time the money was used to conserve an area of specialised habitat for Southern Damselflies at Pensarn Corner. This practical conservation work not only preserved and enhanced the wetland features of the site for its special dragonfly species, but also improved access to the site for both people and livestock. Claire tells you more about this project in her article and you can read further details on the BDS website (Welsh page).

Our partnership with the Environment Agency will also continue for much of the current financial year, thereby funding core aspects of our conservation work. This partnership has helped us to raise awareness of dragonflies, as well as

provide habitat-based and species-based conservation advice to both individuals and other organisations. Sadly, due to financial pressures within the EA, this looks like being the last year of this mutually beneficial partnership for the foreseeable future.

Finally on the grants front, I'm delighted to tell you that we've secured a new two-year funding agreement with Scottish Natural Heritage to develop our work in Scotland and raise the profile of dragonflies there. This we plan to achieve mainly by employing a part-time BDS Scotland Officer, 50% grant aided by SNH. The successful candidate will be responsible for organising a programme of dragonfly walks and talks, running courses in dragonfly identification and ecology, organising a Scottish conference on dragonflies and assisting other BDS officers to run conservation and education projects. At the time of writing we still need to secure match funding for this post, so if you know of any likely sponsors or funders, please let me know. Interviews for the new post should take place in September and I hope to be able to introduce the new BDS Scotland Officer to those attending our BDS Members' Day in Oxford during November.

Although the news above is all quite positive at the moment, the grants we've secured only go partway to funding our present level of work. Despite the considerable efforts of many volunteers who give their time to us freely, we are gradually eating into our capital to fund our staff and overheads. If things don't improve soon, we will be thinking seriously about our ability to deliver a similar scale of staffing and conservation outputs in the not too distant future. I therefore ask you to seriously consider becoming a BDS Benefactor or think about leaving us a financial legacy in due course. We really do need your support now more than ever.

Returning to a more positive note, the celebrations at various 30th Anniversary walks throughout the season and during National Dragonfly Week were a great success. Some of you attending our

BDS walks will have been treated to some birthday cake, so I hope you enjoyed it! Also in celebration of our 30th Anniversary, Jersey Post issued a fantastic set of dragonfly and damselfly stamps. Both the First Day Cover and the Presentation Pack carry information about the BDS and a message from our Patron, Sir David Attenborough. Jersey Post has even used the dragonfly from our BDS logo as part of the date stamp! Have you purchased your copies yet?

We had hoped to match our own production of the new Dragonfly Atlas with our BDS birthday year, but sadly that has proved too ambitious a target. There is far more to the editing process than we could achieve in the initial timeframe, especially with almost everyone involved being a volunteer with other commitments. We have therefore decided not to rush and spoil things, but to ensure a quality product by postponing publication until May 2014. We can however whet your appetite with an enticing glimpse at what is to come. You should find a pre-publication offer flyer in this mailing and by purchasing your copy of the atlas now you will save a massive £12 on the final published price. It's well worth making that commitment as soon as possible and pre-publication purchases will also help us to know how many copies of the atlas to actually print. If you would like your friends to share in this offer, then please direct them to the BDS website where they can find details of the pre-publication offer for themselves.

As I say, we've certainly had much to celebrate this year, so I've been busy spreading the word about dragonfly stamps, our postcard surveys, our achievement of one million dragonfly records and the spread of Norfolk Hawkers to a new breeding site in Cambridgeshire. (The teasing about my favourite 'Norfolk' species has been relentless) [see lan Dawson's article on page 23- Ed]. In addition to press releases about all of these, the BDS has also been busy 'tweeting' news from our Twitter account and posting photos and snippets of information on our BDS

Facebook page. With a little help from BBC Online, who put a sequence of dragonfly photos together for National Dragonfly Week, our Facebook audience peaked at over 26,000 people during July! We also had nearly 2,000 followers on our Twitter account by the end of the same month.

The BDS Flickr site, known as the British Dragonfly Society Pool, is also proving popular. Well over one hundred photographers are now sharing their pictures there and we have been able to use some of the shots (with the photographer's permission of course) on our new publicity banners for use at major events. All this extra publicity is certainly raising awareness of the BDS and may be one reason why the Dragonfly Day at Wicken Fen was so busy this year. Don't worry if you're not part of the social media world though, the BDS will continue to keep you informed of major items through regular copies of Dragonfly News and the BDS Journal.

Finally, before I sign off, I really want to encourage you to attend the BDS Members' Day this year. It will be held in the Natural History Museum in Oxford on Saturday 16th November. The museum is currently closed to the public for roof restoration work, but our meeting will go ahead as planned. During the day you will be able to hear a number of wonderful talks on a diverse range of dragonfly topics. These will include news about reintroduction projects, a talk on pond conservation work, plus talks about some of our fantastic species and their behaviour. We will also take a look back at some of our past BDS history and look forward to our plans for the future. There really will be something to interest everyone, so I'd love to see lots of you there. DN

From the Conservation Officer



Claire Install

I have had such a busy time over the last few months that it is difficult to decide what to tell you about in this article! I have represented the BDS at many meetings and events, delivered training courses, produced new display boards and banners, advised journalists and television researchers and have been successful in a grant application for another small piece of practical work to improve and maintain Southern Damselfly habitat in the Preseli SAC.

You may recall in DN63, I congratulated Martin Černý on his fantastic photo of a Large Red Damselfly winning our photographic competition. The stunning photo even got printed in the Times in March with details about the postcard on which it will appear! The aim of the postcard is to get people out and about looking for Large Red Damselflies and reporting their sightings to us. Shortly after writing the piece for DN63, I designed the postcard and arranged for 10,000 to be printed as part of our SNH (Scottish Natural Heritage) grant. The postcards were launched at the Gardening Scotland event in Edinburgh at the start of June where I was running the BDS stand with much-needed help from several of our members. I am extremely grateful for their enthusiasm and energy on what were fun but long days. Lots of people visited our stand and admired the postcard amongst other stunning dragonfly photos that were on display. One of the highlights for me was having the chance to talk to the Scottish Minister for Environment and Climate Change who was genuinely interested in dragonflies and damselflies and wanted some tips on how to improve his pond!

I have also delivered 5 training courses with the help of our North Wales recorder, Allan Brandon. Four of these were part of our NRW (Natural Resources Wales - the new body that comprises the former CCW (Countryside Council for Wales), EAW (Environment Agency Wales) and FCW (Forestry Commission Wales) grant, the final one was a request from Natural England to deliver to volunteers on the Fenn's, Whixall and Bettisfield Mosses National Nature Reserve. The aim of the courses is twofold, primarily to give people working in the environmental sector and volunteers the knowledge and confidence to run dragonfly walks and talks and secondly to encourage people to send in records of dragonflies. The first two courses were held at the end of February and were 'classroom-based', one in Newtown and the other near Mold. These consisted of presentations, one describing the life history, ecology and identification of dragonflies with emphasis on Welsh species. The afternoon presentation was aimed at giving people the knowledge and confidence to run their own dragonfly walk or talk. It ran through practical aspects of choosing a relevant location, what to talk about, risk assessments and health and safety (made easy) and back up options in a) bad and b) absolutely terrible weather conditions. The three remaining courses were held in July and early August, these were at WWT Llanelli, near Mold and Fenn's. These were held with the aim of getting outside and identifying the species seen. They began with a presentation giving people ID tips and showing them what to look for to aid identification before going outside and putting the ID tips into practice. We received good / excellent feedback from the people who attended the courses.

At the end of March, I received the good news that we had been successful with a grant application from the Welsh Government through Environment Wales that I had made back in October for some practical work in the Preseli SAC. Once again the BDS worked in partnership with Natural Resources Wales and the Pembrokeshire Coast National Park Authority to achieve its aims. The support and co-operation of the landowner and

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local graziers was also of paramount importance for the success of this project. It involved a small section of common land on the northern edge of the Preseli SAC known as Pensarn Corner.

Pensarn Corner is a complex of wetland habitats within an area of approx 100 metres by 100 metres. It contains a mixture of streams, bogs, flushes and pools. The area resides at the confluence of several small streams and contains important livestock access routes. The combination of these diverse wetland habitats and the disturbance by animals creates a unique set of conditions that supports the most important dragonfly community within Pembrokeshire. The key species here is the Southern Damselfly which occurs in some of the streams and flushes of the area. The main stream crossing the site also forms an important area for Scarce Blue-tailed Damselfly which is listed as Near Threatened on the Red Data List. The combination of rare species with sustainable colonies in this area is not found anywhere else in Wales. Only in the New Forest in England may such conditions be replicated.

The area was at risk because access to the Common was becoming difficult and the streams were in danger of becoming choked up. The practical work improved access across the area for both people and livestock, whilst at the same time it preserved and enhanced habitat conditions for the rare dragonflies the area supports.

The main work consisted of widening the existing flooded track way used



by livestock to access the common by approximately four feet using a mechanical digger. The material from this work was then used to create a piped bund to give people access to the common. Previously the terrain had been very treacherous in this area. The pipes in the bund allow water to flow through and will obviate the need for future drainage works. The other main advantage of the bund is that it will allow water levels to be maintained at the crossing point and upstream, even when flow rates are at their lowest during the summer. Stone and gravel were used to fill in some areas on and around the widened track. This further improved the access for livestock whilst creating and extending the area of shallow water flowing slowly over a silty-gravel bottom. This combination of works has created ideal conditions for some of our rarest dragonflies. DN





The Conservation Officer post is sponsored by:













Below left: Pernsarn Corner.

Above top: The world's longest winged (Megaloprepus coerulatus), smallest (Nannophya pygmaea) and bulkiest (Petalura ingentissima) dragonflies, taken at a meeting with Ben Price, Odonata curator at the Natural History Museum.

Above bottom: The BDS stand at Gardening for Scotland.

InBox

The Editor welcomes your letters and e-mails.

Dragonfly videos from Georg Rüppell

I thought readers of Dragonfly News might be interested in some videos on my Youtube channel:

Dragonflies catching prey in flight;

http://www.youtube.com/watch?v=ssIWa80Alq0

Frogs preying on dragonflies:

http://www.youtube.com/ watch?v=W6vujKTk3is

Bee-eater preying on dragonflies:

http://www.youtube.com/watch?v=pDoDT6qKx 8

Why not subscribe to my channel for updates as I post more videos?

Georg Rüppell

[these videos are amazing and well worth seeing, especially the frog's comical attempts at catching ovipositing Darters - Ed]

Snowdonian blue damselfly [DN62]

I was interested to read about the "Snowdonian blue" damselfly in issue 62. Looking at it, I wonder whether it might be an Irish Damselfly; the marking on S2 is slightly spade-shaped, and the pairs of spots on S8 and S9 are suggestive of this species but are not normally present on the Common Blue. Ireland is not that far from Wales, and the damselfly could well have been blown across on the prevailing westerly wind. What ever it is, it is very melanistic, so anything is possible. I certainly would not rule out the Common Blue, as I have seen one at Paxton Pits, Cambs., where

the antehumeral stripes had shrunk to a mere two dots each, at the two ends of the normal extent. In this case, the S2 lollipop was absolutely as normal, so there was no mistaking the species; sadly, it was very camera-shy, so I cannot back this report with solid evidence. Perhaps melanism is commoner amongst the blues than realised. Paxton Pits are a clean environment, so pollution is hardly likely as a cause.

Tim Gossling

During an evening walk by Rudd Lake at Paxton Pits, Cambridgeshire on 14th July, I came across a male Common Blue Damselfly completely lacking the normal broad blue antehumeral stripes. It was perched on Scirpus several feet out into the lake, so I was not able to get close enough for a good photo but the accompanying record shot clearly shows the unusual colouring. I recalled having read something on melanism in this species in a recent DN62, but none of those pictured or mentioned showed an all-dark upper thorax. This species is extremely abundant at this site but I have never come across any variation before in the many thousands of individuals I must have looked at over the years.

Ian Dawson





Is the cold spring to blame?

We have noticed that there are quite a few abnormalities with dragonflies and damselflies this season with twisted wings, bent abdomens, etc and have had to destroy some at home as they could not fly and would have only starved to death. For example we saw 2 Large Red Damselflies at two different sites on the same day with severely bent abdomens and emerging from our ponds at home we have observed Azure and Large Red Damselflies with twisted wings and unable to fly. We have also had a Large Red Damselfly stuck in it's exuvia emerging from our pond and sadly we could not release it. In 2012 we had a larger emergence from our garden ponds than this year but did not notice any abnormalities. At other sites we have also noted dragonflies with "unequal wings" - see attached photo of a Four-spotted Chaser photographed at Wicken Fen NR on 25/06/13. We wonder if it is due to the cold spring or delayed emergence. Have any readers noticed this or know the reason?



Judy & Terry Wood

The second second

Autumn 2013

Lestids - Request for help

Following my appeal in the last BDS Newsletter seeking any records of mixed pairings of male Emerald Damselfly with non-lestid species, I received two interesting responses. The first of the two records was from Leon Truscott, which dated back to August 1990 from Cornwall and concerned rather bizarrely a male Emerald Damselfly attached with an immature male Common Darter! The second record from Barry Nattress was, like my original observation, a male Ememeral Damselfly with a female Large Red Damselfly. The observation was on 27th July 2011 from a site in Dunfries & Galloway.

Whilst it is known that male Emerald Damselflies will attach with other lestid species, it would appear from the four records to hand, which involves three different species, that it may occur more frequently with other species. As to why this behaviour should occur in the first place is still unclear. If you should see any pairs of Emerald Damselflies, please double check the attached species. Any further records or comments would be welcome.

Bryan Pickess

Mixed pairings and | Pruinescence in female Broad-bodied Chaser [JBDS Vol28 No.1]

John Horne's paper in JBDS Vol28 no.1 has prompted a lot of discussion across the dragonfly forums about the prevalence of pruinescence in female Broad-bodied Chasers. From these discussions, it seems that this phenomena is actually more common than at first though. However, until John published his paper, I had not seen such a female. This species is not common in my home county, so I made a particular effort to go out and find examples. At the end of July 2012, I found and photographed my first pruinescent female. In Northants few records exist of Broad-bodied Chasers into August, but on 1 August 2013, I was lucky enough to witness mid-air mating of a pruinescent female and subsequently capture a series of shots of her ovipositing. I am sure that this is not a unique event and it would be interesting to add this to any future research on pruinescence. I will be passing the data onto John as per his request in DN63 and would encourage other readers to do the same.

Mark Tyrrell

[a reminder of John's contact details -



Mike Averill wins Worcestershire Wildlife Trust Award

Congratulations go to Mike Averill for being awarded the Worcestershire Wildlife Medal 2013.

Mike received this award for his work recording dragonflies in Worcestershire over a 30year period and contributing greatly to the knowledge and conservation of dragonflies in the County.





Handing on the **Baton**

Raising public awareness of dragonflies has been the objective of the volunteers at Ashton Water Dragonfly Sanctuary, the National Dragonfly Museum and the Dragonfly Project for 25 years. As many members know, it's something we've been gently agitating the British Dragonfly Society to add to their aims for almost all that time. In November 2012 the Society adjusted its mission statement from 'the Study and Conservation of Dragonflies' to 'the Study, Conservation and Raising Public Awareness of Dragonflies'. For us this is excellent news and in our opinion it's very good that the BDS are already making serious efforts in this direction, most significantly with stands at events around the country, press releases, and walks for the general public.

So the Dragonfly Project Trustees have decided to step back as from the end of summer 2013. We can now hand the baton of continuing to raise public awareness to the BDS, and wish the Society the very best with this.

We will not be running Courses or Safaris or a Shop at Wicken in 2014, nor will we have a Project stand at the 2014 Bird Fair. The running of the Wicken Dragonfly Centre will henceforth be solely under BDS control, and the BDS will be running dragonfly activities in the Wicken Learning Centre next year, too. We're keen to make the transition as trouble-free as possible. Several of our volunteers are now key members of the Society, very enthusiastic about raising public awareness, running courses etc., so there's already a significant crossover.

We're very proud of what we've done over the last 25 years:-

From a start in 1989, we opened the first publicly-accessible dragonfly reserve in Europe in 1991, averaging over 100 visitors per open day, 3,500 people between 1991 and 1994.

Between 1995 and 2001, 22,000 people visited the National Dragonfly Museum, quite apart from those who came on our Dragonfly Courses.

When, in 2002, Adrian Colston originally invited the Dragonfly Project to The National Trust at Wicken Fen (while we were at Woodwalton Fen) he stated specifically that if we could win our spurs and prove dragonfly-related activities to be of financial advantage for the National Trust, then he might possibly be able

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to make a cottage available to us for a centre at some point in the future.

We worked for six years (2003-2008) at Wicken to demonstrate to the National Trust the attraction of dragonflies to the general public, and the financial advantage that would accrue to the National Trust from our work. Had it not been for our dedicated weekends at Wicken, the Wicken Dragonfly Centre would not now exist.

During the six years we were in the National Trusts's Wren Building at Wicken prior to the opening of the Dragonfly Centre, we had countless folk come and spend time with us, finding out about dragonflies, and we've had countless folk since.

Over 1000 people from all over the country have spent half a day with us on Safaris at Wicken, and over 400 people have spent a whole day with us on Dragonfly Courses.

We've promoted dragonflies on TV and Radio, prime time, national and local, over two decades, and given talks countrywide. The most recent TV appearance was on Springwatch in the Afternoon on 6 June this year.

We've worked for 25 years (13 at Ashton, 1 at Woodwalton, 11 at Wicken) directly interacting with the public on behalf of dragonflies, complementing the BDS's different focus which has until last November been primarily on the Study an d Conservation of dragonflies.

In 1989, it was virtually impossible to find any dragonfly-related item in any shop. Now, on visits to Gap, Marks and Spencer, and Liberty, for example, there are dragonfly motifs everywhere, on jewellery, shirts, scarves, even underpants! And dragonflies now feature regularly on TV. We can certainly claim a great deal of credit for this. We have accomplished much. And we're confident that the British Dragonfly Society will now be able to carry our work forward, and, as staunch BDS members, we're keen to help where we can.

On a personal note, could I add that when my grand-daughter Penny heard the news of this change from my daughter Catharine in the car, she burst into the house, flung her arms around me and said "You can't give up dragonflies, Grandpa." I assured her there was no question of that: "They're in my blood," I told her. I plan to go on boring for Britain about dragonflies to whomsoever is prepared to listen!

Ruary Mackenzie Dodds

Dragonfly Haikus

Here are a few more dragonfly related Japanese haiku for Dragonfly News readers to enjoy.

Ruary Mackenzie Dodds

Alighting on my shoulder,

It seems to long for human society,

This red dragonfly.

Koyo

Dragon-flies

On the spears of the barrier,

In the slanting rays of the sun.

Bosun

Red dragonflies

On Mount Tsukuba

There is not a cloud to be seen.

Shiki

Indian summer:

How rarely the dragonflies come,

Their shadow on the window pane.

Shiki

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.

Grand Western Canal, Devon, 26 May, Dave Smallshire

Only one person turned up for this first Devon Group meeting of the year, despite some fine spring weather. In the event, only the usual common damselflies were found. Clearly the late spring had prevented any Scarce Chaser emergence and many of the damselflies seen were taking their maiden flights. The highlight was a pair of Lesser Whitethroats, scarce birds in Devon.

Stover Country Park, Devon, 15 June, Dave Smallshire

Again only a single person appeared, this time for a walk for beginners jointly celebrating the BDS 30th anniversary and the British Ecological Society's centennial. After an early shower and hence a slow start, first a Hairy Dragonfly exuvia was found and then commoner damselflies in sheltered suntraps, plus a Red-eyed Damselfly sitting out on pondweed. Close to the pond where the damselflies had been found we disturbed



Main: Attendees on the Yardley Chase field trip enjoy a slice of 30th anniversary birthday cake. *Inset left:* a Downy Emerald. *Inset right:* Rescuing an emergent Southern Hawker.

single Emperor, Broad-bodied and Four-spotted Chasers and Black-tailed Skimmer. After lunch, with our number now trebled, the lake produced two distant Hairy Dragonflies, while another pond held three more, including one egg-laying, and another Red-eyed. Most surprising, however, was the discovery of four Southern Hawker exuviae, one with the adult still 'pumping up'. Around some new ponds just outside the park we later found lots of Black-tailed skimmer exuviae and 2-3 Beautiful Demoiselles, bringing our total for the day to 12 species.

Countess Wear & Exminster Marshes, Devon, 16 June, Dave Smallshire

Two reasonable days in a row was

too much to expect and today it rained during the morning and the temperature stuck at a mere 12 degrees C! Two brave souls turned up at Countess Wear for a joint Exeter CC/BDS walk along the Exeter Canal. Search as we might, not even a damselfly could be found and the day was abandoned soon after 11:00.

Yardley Chase, Northamptonshire, 22 June Mark Tyrrell

This year's field trip to Yardley Chase was organised as one of the BDS 30th Anniversary Walks. In true field trip style, the unsettled weather forecast caused a few concerns but turned out to be largely inaccurate. Ten BDS members joined the walk through this ancient woodland



where a series of 14 bunkers were built during World War II, each surrounded by a number of ponds. Our target species for the day was the Downy Emerald.

We split up around the first bunker and quickly located our first odonata - Azure, Common Blue, Large Red, Blue-tailed and a few Red-eyed Damselflies. As the sun came out, our first Downy Emerald appeared in the form of an ovipositing female. This was quickly followed by a female Emperor and a couple more ovipositing Downy Emeralds. As the females left, a male Downy Emerald arrived and began patrolling the pond margins. This created great excitement as it was a new species for several of the attendees. At this pond, we located Emperor and Hairy Dragonfly exuviae.

The second bunker complex had been cleared over-winter by the Forestry Commission and presents a much more open aspect to the water margins. Here we watched as 10 male Downy Emeralds buzzed around clashing with a few Fourspotted Chasers. It was quite breezy which kept much activity down, but didn't seem to affect the Downys too much. The previously seen damselfly species were in good numbers with many pairs in-cop and ovipositing. A couple of emergent Southern Hawkers were discovered, one of which needed rescuing from the windy conditions.

Visiting two more bunker complexes, we added Four-spotted Chaser and Downy Emerald exuviae to our collection. We returned to the cleared bunker for some 30th anniversary birthday cake, kindly prepared by Freddie Ingall, while watching more Downy Emeralds and a Hairy Dragonfly which completed our 10 species for the day. A rare Wood White butterfly and nearly blind grass snake offered good photo-opportunities alongside the dragonflies. Our thanks go to Tony Richardson, Les Galley and the Compton Estate for allowing us access for the day.

Woodwalton Fen, 22 June, Mick Parfitt

On a slightly windy but sunny day, with a less than promising weather forecast, 10 people arrived for the walk around the nature reserve. The local Natural England warden, Alan Bowley, gave us a fascinating history of the area

and then a description of the Great Fen project to set the scene before we marched off. Over the next couple of hours we were rewarded with flying displays by Hairy Dragonfly, Scarce & Four-spotted chasers, Black-tailed skimmer, and five species of damselfly, including Red-eyed and Variable. We ended the walk where we had started, back up on Jackson's Bridge at the entrance to the Fen, eating cake and drinking fizzy apple juice (champagne substitute!) and toasting the 30 years of the BDS.

Venn Ottery Common, Devon, 23 June, Lesley Kerry

Three participants on this cool (13 degrees C!) and sometimes damp visit to the Southern Damselfly re-introduction site at least raised the average number for Devon Group field meetings a little! Rather predictably, very little was seen: one Large Red and one Azure Damselfly, the latter dead, and an emerging (foolhardy?) Emperor.

King's Dyke, 29 June, Henry Curry

A small party of intrepid dragonfly watchers met in the car park at the King's Dyke nature reserve in Whittlesey on a day with plenty of breeze and cloud but sunny intervals. We took a long walk around the reserve, the assembled group being fascinated by the Jurassic clays containing an abundance of fossils lying on the surface. There are many different habitats and work is always underway to manage encroachment of vegetation to keep the ponds and ditches open, so on the way around we saw nine species of dragonflies and damselflies. The site notably has an abundance of Variable Damselfly, along with Hairy Dragonfly and Four-spotted Chaser. One of the party was thrilled to see Emperor dragonfly exuviae, as she had never seen them before 'in the wild' ! Returning to the car park we had drink and cake to celebrate the 30th birthday of the BDS.

Upton Fen, Norfolk, 20 July, Pam Taylor

Was it the later date of my field meeting this year or the fact that I put on two walks instead of just one to accommodate the 'crowds'? Whatever the reason, my usually oversubscribed walk at Upton Fen had far fewer takers than usual. On a warm, but slightly overcast morning, my husband George and I met up with eleven participants to search for dragonflies.

The sun only came out sporadically and the wind blew strongly whenever we left the shelter of the trees, but we still managed to locate Common Blue and Emerald Damselflies, together with Brown Hawkers, Black-tailed Skimmers and Common Darters in the first area of small ponds. All but the Brown Hawker were caught so that the finer points of identification could be pointed out. Moving further into the fen we soon added Blue-tailed Damselflies, Ruddy Darters and Southern Hawkers to our tally.

Braving the wind, we took a quick march up to the viewpoint overlooking the grazing marshes in the hope of finding Norfolk Hawkers in the Water Soldier filled dykes at the edge of the fen. Sadly, only some of the species we had already seen were making use of the deep and sheltered watercourse.

As we returned into the fen a path protected by trees on both sides was suddenly lit by a brief sunny interval. Almost immediately there were numbers of Black-tailed Skimmers low over the grass and damselflies active in the longer



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grass verges. At last we could add both Azure and Variable Damselflies to our list. Once again the key identification features were explained before we spotted our last two species - Broad-bodied and Four-spotted Chasers.

Back at the car park, a BDS birthday cake was cut and shared, before George and I prepared for our second walk. This was a repeat of the morning route, except we decided not to bother visiting the blustery viewpoint. With just five participants this time, all of them beginners, we found all but Brown Hawker and Four-spotted Chaser from our morning list. To compensate we added Large Red Damselfly and a male Emperor instead. Our guests were amazed to see this Emperor carrying off and feeding on an unfortunate Blacktailed Skimmer. It really made their day, as did the rest of the cake when we finished the walk.

Chudleigh Knighton Heath and Little Bradley Ponds, 27 July, Dave Smallshire

The presence of the Bovey Tracey DWT Group boosted numbers attending to 20. Once again, Dragonfly Week weather let us down: it remained cool and cloudy throughout with a couple of light showers. Consequently, only common damselflies were present and these were low in number. After a few tantalising glimpses of large dragonflies, an Emperor made two circuits at Little Bradley before retiring. Birds made up for the lack of dragonflies, the highlight being three young Peregrines over us as a flock of racing pigeons moved through.

Croome Park, Worcestershire, 17 August, Mike Averill.

You always take a chance with the weather on booked events and this day didn't look promising being forecast as the worst of the weekend days with strong winds and rain. Ever hopeful, 8 people set off for the Lake at Croome Park in Worcestershire and it was hard work for two hours, only spotting a few





Above: Activities at Dragonfly Day, Wicken Fen, 28 July.

Blue-tailed Damselflies, one Banded Demoiselle, some Common Blue Damselflies and one Ruddy Darter. Fortunately a brief 10 minute burst of sunshine sparked a flurry of activity as several Emperors arrived to patrol and lay eggs. Also arriving before the spectators were a female Brown Hawker who showed her preference for egg laying in to rotting wood whilst a Common Darter stroked the water surface to lay hers, neither attended by any male. Finally the local celebrities, male Small Red-eyed Damselflies, were seen flying

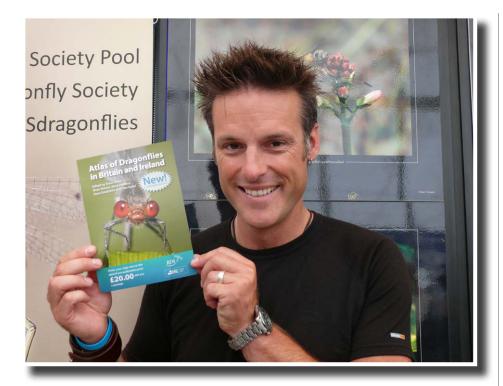
out to algae and floating leaves before the clouds once again filled the sky.

Hopefully the walk will have whet the appetite for those people to go back again to this very good site for dragonflies.

Dragonfly Day at Wicken Fen , 28 July, Pam Taylor

Our BDS Dragonfly Day, held in





partnership with The Dragonfly Project (TDP) and National Trust, concluded this year's events for National Dragonfly Week. Our Dragonfly Centre was open to visitors all day and the raised pond in the garden certainly attracted lots of interest. People arriving at the site could also try their hand at pond dipping if they walked down the lane to the area specially constructed for this purpose. Our two stalwart dragonfly volunteers stationed at the popular dipping ponds were kept very busy with children and adults alike all day.

The National Trust ran a series of boat trips for the event, which also had a volunteer 'dragonfly spotter' on board, and these were soon fully booked. There were also short guided walks at regular intervals led by dragonfly enthusiasts and culminating in a larva feeding demo using the TV and microscope link. Although the young hawker larva performed well at first, he was obviously stuffed full of blood worms later in the day, because he would rather step on them, than eat them! One of the morning dragonfly safaris was so popular with over fifty potential participants that reinforcements had to be quickly called in to share and lead the group.

Within the same building as the larva feeding demos, visitors could buy dragonfly books, jewellery and other items from our well stocked BDS and TDP shops. They, or at least their children, could also make their own pipe-cleaner, foam shape or origami dragonflies to take away or colour a dragonfly picture. There was certainly a

lot on offer for people to do and many visitors spent the whole day with us on one activity or another. There was even a shopping trolley sculpture of a dragonfly you could view as you relaxed with a welcome cuppa outside the National Trust café.

BDS at the Bird Fair, Pam Taylor

Our thirteenth year at the Birdfair and certainly one to remember. As usual we shared the double stand with the Dragonfly Project team and the combination of their sales items and our informative displays worked well. Our busiest day was Friday when lots of old friends called in to see us and we gained 12 new BDS members through our special Birdfair offer. More new memberships followed over the next two days, so a huge BDS welcome to all 27 of our new supporters!

TV presenter and naturalist Nick Baker called in for a chat and a few photos on Saturday morning. He was only too pleased to promote our new atlas and happily posed with a copy of our flyer. This advertises the prepublication offer and you should find your own copy in this mailing. Don't worry if you mislay it though, because details about the atlas offer are on our BDS website. The pre-publication price will save you a massive £12 on the RRP, so it's well worth getting your order in soon. FSC (Field Studies Council) is handling

atlas sales for us, so please send your orders to them, not the BDS, or order online through the FSC website http://is.gd/odonata.

Later the same day we had our first ever book signing on the BDS stand. David Chandler and Steve Cham signed copies of their new publication 'Dragonfly'. This book delves into the hidden world of these fascinating insects through both text and stunning close-up photography. There are chapters on hunting behaviour, courtship and the emergence of larvae into adult dragonflies. This beautifully illustrated book is available for purchase from the BDS shop. [See also Henry Curry's review on page 35 and BDS Shop on back page - Ed].

Throughout the show our tank of live larvae at the front of the stand drew people in to find out more about them. We had two Southern Hawker larvae on show, plus a Common Darter and some damselfly larvae. On the last day of the Birdfair the Common Darter showed signs it was about to emerge. Thankfully we got it safely back home to its pond that evening, before anything actually happened.

Each year the Birdfair gets bigger and better. There were eight main marquees this year, plus three lecture marquees, more lectures in the Anglian Water Birdwatching Centre, an events marquee, the Art Marquee and several outdoor display areas. Add in catering, the Birdfair Auction, the Birdfair mural and several bug hunts and craft activities for all the family and you certainly have plenty to keep everyone busy for the full three days. Why don't you make a date in your diary for next year's Birdfair now (15 to 17 August) and come along to see us on the BDS stand. Make sure you bring lots of money with you though, for all those tempting Birdfair offers and holidays!

Watching Dragonflies abroad in 2013 and 2014, Dave Smallshire

When summer finally arrived in Britain in July, I was enjoying the sun during my regular Naturetrek dragonfly tours to Bulgaria and the Camargue. It's ten years since Andy McGeeney and I reported on our exploratory trip around Bulgaria with

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Milen Marinov, so I thought it was time to refresh memories of what a wonderful country it is.

In 2004, 17 BDS members succeeded in seeing 48 species in what was possibly the world's first commercial dragonfly-watching tour. Since then I've visited most years, but the 2012 trip was a record-breaker. Could this year's trip possibly match it? I needn't have worried, because we enjoyed another superb trip for wildlife in general and even managed to beat our dragonfly record, with 53 species. This total is probably unequalled for a nine day period anywhere in Europe. The highlight was a late female Bulgarian Emerald (Somatochlora borisi) at the site where I discovered a male in 2009. This seems to be only the sixth location known for this species, which was discovered as recently as 1999, and the most westerly. Not to be overshadowed, several Black Pennants (Selysiothemis nigra) were at one of only two known sites for the species in Bulgaria. The supporting dragonfly cast included Odalisque (Epallage fatime), Northern Damselfly (Coenagrion hastulatum), Ornate Bluet (Coenagrion ornatum), Eastern Spectre (Caliaeschna microstigma), River Clubtail (Gomphus flavipes), Green Snaketail (Ophiogomphus cecilia), Turkish and Balkan Goldenrings (Cordulegaster picta and C. heros), Balkan and Brilliant Emeralds (Somatochlora meridionalis and S. metallica), and Banded, Spotted and Yellow-winged Darters (Sympetrum pedemontanum, S. depressiusculum and S. flaveolum).

But it's not just Bulgaria's dragonflies that leave a lasting impression. We saw 125 bird species, Wallcreeper put on its usual good show along with Dalmatian Pelican, Levant Sparrowhawk, Lesser Spotted Eagle, Eleonora's Falcon, Nutcracker and had fantastic views of Little Bittern. Among 77 butterfly species were Apollo, Eastern Festoon, Balkan Copper, Little Tiger Blue, Lesser Spotted Fritillary, Poplar Admiral, Common Glider, Arran Brown, Balkan Marbled White and Sandy Grizzled Skipper. There were far more other insects than we could get to grips with, but pride of place had to go to multiple sightings of Europe's largest bush-crickets: the predatory Saga natoliae and two vegetarian, armadillolike Bradyporus species. Bulgaria really buzzes!

The Camargue trip resulted in a more modest 33 dragonfly species, which included Copper Demoiselle (*Calopteryx*

haemorrhoidalis), White and Orange Featherlegs (Platycnemis latipes and P. acutipennis), Mediterranean Bluet (Coenagrion caerulescens), Western Spectre (Boyeria irene), Yellow and Western Clubtails (Gomphus simillimus and G. pulchellus), Orange-spotted Emerald (Oxygastra curtisii) and Banded and Spotted Darters (Sympetrum pedemontanum and S. depressiusculum). The tour is billed as Dragonflies and Birds and the latter didn't disappoint, with all those innumerable Mediterranean wetland birds and the likes of Bonelli's Eagle, Little Bustard, Pin-tailed Sandgrouse, Eagle Owl, Great Spotted Cuckoo, Calandra Lark, Spectacled Warbler and daily Rollers.

The dates for next year's Naturetrek dragonfly tours are:

Sardinia's Dragonflies, 4-11 June

Dragonflies of La Brenne & Vienne, 18-25 June Bulgaria's Dragonflies, 18-26 June

Dragonflies and Birds of the Camargue, 9-16 July

For further information, contact
Naturetrek (tel. or check
the website www.naturetrek.co.uk, where
trip reports can be downloaded.

Advance notice

Dragonflies and other wildlife in Brazil, late 2014 or early 2015 (dates and further details to be confirmed) with Dave Smallshire and Tom Kompier (Netherlands).

A small group based at Regua Lodge (over 125 dragonfly species possible in a week!) with a possible extension to the Pantanal. Let Dave know if you are interested

Wanted! New Trustees

Over the years, and with some gentle persuasion and cajoling, we have been able to recruit sufficient Trustees who have given their time, enthusiasm and expertise to help steer the Society and make us the thriving organisation we are today. However, the requirements of managing this sizeable charity have changed in recent years as the world around us and our growing commitments have changed. As a result, we not only require new trustees with general skills to meet our normal turnover, but we also want to see more specialist skills to match the demands we now face. So I would like to appeal to you to come forward, or to identify others who you think may like to accept this rewarding challenge, as we need people to guide and grow the Society.

Essential – general requirements of a good Trustee:
1) Able to attend a minimum of two Board of Trustees' meetings per year; 2) Able to take an active part in the day-to-day business of the Society, usually via e-mail communication; 3) Be keen to act with the interests of the Society at heart at all times; 4) Take on actions as agreed by the Board

Desirable – additional skills which would assist the Board:
1) Publicity; 2) Members'
Day organisation; 3) Website management; 4) Financial /
Treasurer; 5) Fundraising abilities / experience; 6) Legal and Human

If you are keen to volunteer now, or would just like a chat to know more, please contact me.

Thank you!
Henry Curry, Honorary Secretary
Tel:



First Dates for 2013

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

Especially given the long period of glorious and often very warm weather during July, the earlier cold weather of winter and spring will perhaps have faded a little in many observers' memories. Its impact on dragonfly flight periods was however quite dramatic. By the end of April only a single species – the Large Red Damselfly – had been reported on the wing. This compares with a total of roughly 7-8 species in a more 'normal' year. Emergence dates continued to be delayed pretty much throughout the season, though there were to be one or two exceptions where no doubt local micro-climate effects were involved. It will be interesting to see whether there are any knock-on effects of the slow start on just how late the different species are seen this year.

First dates for 2013 are tabulated below. It should be noted that these are based purely on records of which I am currently aware, and should not be considered definitive. If anyone has any sightings that beat those given here, perhaps they could contact me. DN

Updated Last Dates for 2012

SPECIES	LAST DATE	LOCATION	OBSERVER
Variable Damselfly	23-Aug-12	Leicestershire	L. Ellison
Large Red Damselfly	6-Oct-12	Radnorshire	I. Standen
Scarce Chaser	8-Aug-12	Northamptonshire	T.Wood

First Dates for 2013

SPECIES	FIRST DATE	LOCATION	OBSERVER
Banded Demoiselle	16-May-13	Middlesex	S. Darlington
Beautiful Demoiselle	13-May-13	Hampshire	P. Ritchie
Scarce Emerald Damselfly	3-Jul-13	Kent	Anon.
Emerald Damselfly	16-Jun-13	Essex	T. Caroen
Willow Emerald Damselfly	9-Jul-13	Suffolk	M. Piotrowski
Azure Damselfly	5-May-13	Cheshire	M. Bingham
Variable Damselfly	5-May-13	Somerset	J. Hawker
Red-eyed Damselfly	12-May-13	Suffolk	A. Parr
Small Red-eyed Damselfly	6-Jul-13	Hampshire	P. Winter
Large Red Damselfly	14-Apr-13	Norfolk	C. Bishop
Common Blue Damselfly	7-May-13	Hampshire	P. Winter
Blue-tailed Damselfly	5-May-13	Cheshire	M. Bingham
Scarce Blue-tailed Damselfly	26-May-13	Hampshire/Cornwall	P. Winter/P. Hopkins
Small Red Damselfly	5-Jun-13	Hampshire	P. Winter
White-legged Damselfly	25-May-13	Surrey	M. Gray
Southern Hawker	15-Jun-13	Devon	D. Smallshire
Brown Hawker	26-Jun-13	Lancashire	M. Foley
Norfolk Hawker	3-Jun-13	Bedfordshire	I. Woiwod
Migrant Hawker	17-Jul-13	Bedfordshire	S. Thompson
Emperor Dragonfly	31-May-13	Cornwall	C. Moore
Hairy Dragonfly	3-May-13	Essex	N. Phillips
Common Club-tail	20-May-13	Worcestershire	M. Averill
Golden-ringed Dragonfly	4-Jun-13	Dorset	P. Ritchie
Downy Emerald	7-May-13	Hampshire	P. Winter
Brilliant Emerald	1-Jun-13	Surrey	R. O'Mahony
White-faced Darter	ca.15-May-13	Shropshire	M. Brown
Broad-bodied Chaser	4-May-13	Kent	Anon.
Scarce Chaser	22-May-13	Sussex	B. Rainbow
Four-spotted Chaser	5-May-13	Dorset	C. Dresh
Black-tailed Skimmer	31-May-13	Norfolk/Cornwall/Beds.	many observers
Keeled Skimmer	18-May-13	Cornwall	P. Fenn
Black Darter	8-Jul-13	Surrey	H. Tish
Ruddy Darter	25-Jun-13	Essex	I. Dew
Common Darter	26-May-13	Kent	N. Baelz

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Migrant Dragonflies

Adrian Parr reports on the activities of migrant dragonflies from spring to early summer 2013.

The first half of the 2013 flight season was a surprisingly quiet time for migrant dragonflies. The only species to appear in any numbers was the Red-veined Darter. A teneral noted in Victoria Park, Greater London, on 1 June was no doubt a locally-bred individual arising from the major influx seen last year. No other spring emergences were however noted, perhaps not too surprisingly given the very cold winter of 2012/13. The first migrant individual was seen at Portland, Dorset, on 15 June, but further arrivals of Red-veined Darters did not take place until the last days of June and into July. Early in this period significant numbers were noted in several parts of Kent, with 25+ at Sandwich Bay on 30 June. Many of these individuals then seemingly moved on. A probable second wave of arrivals then took place in southwest England, with records from regions such as Cornwall, Somerset, Glamorgan, Gloucestershire, Warwickshire, Worcestershire, the Isle of Wight and Hampshire. Often just singletons were involved, but 15-20 were seen at Kenfig NNR, Glamorgan, in mid July.

As well as the Red-veined Darter, where significant arrivals are now pretty much expected in most years, a few other migrants were also around. At the time of writing only two Lesser Emperors have been reported, though importantly one of these was an ovipositing female - seen at Drift Reservoir, Cornwall, on 14 July. While Lesser Emperors usually oviposit while still in tandem, records of lone ovipositing females such as this one are occasionally made. Besides the aforementioned species, other migrants were extremely sparse during the early part of the year. A female Scarce Chaser (the first well-documented county record) photographed at Marazion Marsh, Cornwall, on 17 July was however of

some note. Similarly Norfolk Hawker continued to produce some unexpected sightings, with records from Thompson Water in West Norfolk and Potton Wood, Bedfordshire. The latter individual perhaps originated from Paxton Pits in Cambridgeshire, where a new colony was this year proven to have become established.

Lastly, while migrants may have had a quiet start to the year, news of our recent new colonists was more encouraging. Although Dainty Damselfly was again apparently absent from its public site on the Isle of Sheppey, Kent, some nine ovipositing pairs were found at one of the nearby private sites in mid July. Importantly, a further (fourth) site for the species was also identified in the same general area. Clearly the species still maintains a good foothold in the region. Elsewhere in Kent, the Southern Emerald Damselfly again reappeared at Cliffe Marshes. Although numbers seen at any one time were low, the species can be guite well camouflaged and it would seem that the breeding population there is now well-established. Late in July, reports were also received of Southern **Emerald Damselfly at Winterton Dunes** in Norfolk, where oviposition had been noted in 2012. Most likely successful breeding has now also taken place at this site, and hopefully another permanent colony is in the process of becoming established. Finally, the Southern Migrant Hawker was once more noted from the Thames Estuary area. An ovipositing pair was discovered at Hadleigh Country Park, Essex, on 24 July, two males were seen at Wat Tyler Country Park, Essex, on 2 August and a single male was noted at Cliffe Marshes, Kent, on 3 August. Hopefully yet further individuals will be discovered later in the season.

In summary, then, the first part of the 2013 flight season was a rather mixed one for migrants/new colonists, with some good highlights but with certain key species present in only low numbers. It will be interesting to see what the second half of the season brings, and readers are encouraged, as always, to submit details of any sightings.

Can you help the Society?

The BDS is already engaged in a worthwhile programme of activities in conservation and education, but to meet our commitments and expand our capabilities we urgently need your help. There are many ways in which you can do this. For instance, by taking out our Benefactor Membership, you can help meet our costs in running the services we offer such as answering identification queries, offering conservation advice, maintaining the website and producing our publications.

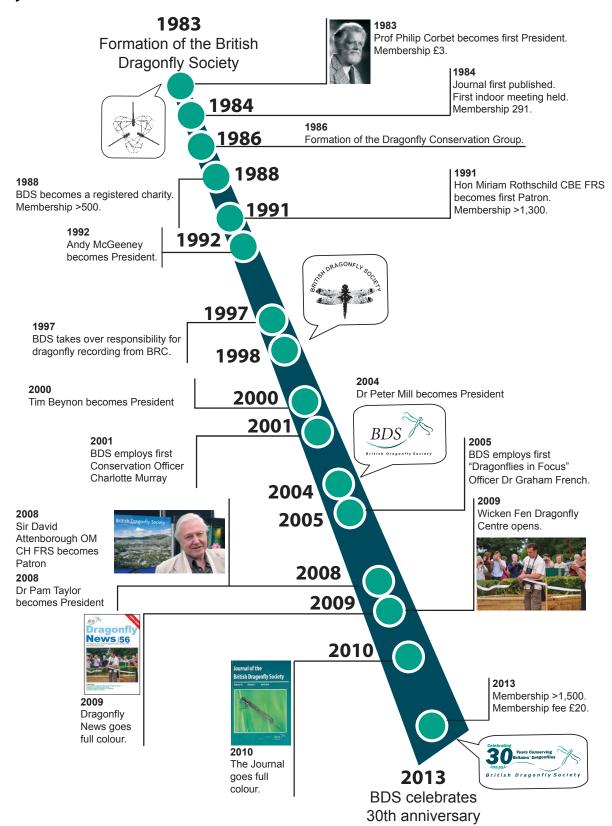
Alternatively, do you know of, or do you work for a company or organisation that would be prepared to offer us a grant or a donation, or perhaps be interested in taking up Corporate Membership? We need sponsors for our conservation work, such as the Southern Damselfly habitat project in Wales, and our Scotland Officer who we hope to appoint soon. Do you have any local sponsors for activities or promotional work in your own area? If you can help or know of any suitable contacts, do please let me know. I know that finding extra funding is problematical these days, but I am sure that amongst our membership we have people with contacts who can find some additional resources that will allow us to carry on the good work we have started, and hopefully expand into new areas to support dragonflies.

Thank you! Henry Curry, Honorary Secretary Tel:

30 years

of the British Dragonfly Society

Compiled by Mark Tyrrell



No.

Autumn 2013

FEATURES

Favourite

Days

Rosie Ray recounts how work for the Cotswold Water Park dragonfly atlas lead to some of her most memorable days.

For the past five years, I have been one of a number of volunteer dragonfly recorders in the Cotswold Water Park (CWP). Under the supervision and guidance of The Cotswold Water Park Trust's Biodiversity Manager, Gareth Harris, we were all given specific tetrads to survey. For those unfamiliar with the location, it is an area of over 150 lakes on the edge of the Cotswolds, the bulk of which are 3 miles south of Cirencester in Gloucestershire.

The lakes of the CWP were created through the restoration of gravel pits following sand and gravel extraction; thus creating, from the old mineral workings, a series of lakes for nature reserves, sailing, water skiing, public recreation and holiday home developments. The lakes are found within a matrix of circa 200km of Rivers including the Thames, and its tributaries such as the Churn & Coln. It is an absolute haven for wildlife, ranging from thousands of water birds, an abundance of bats and water vole, and of course vast numbers of dragonflies and damselflies.

The purpose of the five year
Dragonfly Atlas Project was to record and
document all the species of damselflies
and dragonflies that inhabit, and breed,
within the park and to publish an Atlas
with the results to be available in print
early in 2013. All of our data has been
shared with the BDS's National Atlas
Project too.

During the five year survey, some newcomers have been recorded,

including Lesser Emperor Dragonfly (with proven breeding), the first few Hairy Dragonflies and "old friends" such as the Scarce Blue-Tailed Damselfly. It is always exciting to find new species, or known species, that are expanding their range.

The final year (2012) was disappointing with long spells of cold, wet weather and flooding at some of the prime sites during peak survey months. But some species did very well despite this. The Brown Hawker was one that seemed more numerous than on previous years and clouds of Common Blue Damselflies were nearly as abundant at all locations, albeit later in the season.

The highlight of the year, for me, was witnessing (and photographing) the emergence of a Downy Emerald. It was a cold and overcast day and I had just gone out walking as it was definitely not survey weather. While crossing a boardwalk at Lower Moor Farm (a Wiltshire Wildlife Trust Nature Reserve within the CWP), something moving caught my eye. It was a Downy Emerald larvae moving along the boards at quite a speed. As I watched, it crawled onto one of the uprights out of the cold wind and stayed still for several minutes. I watched, mesmerised, as a tiny split appeared in the larval case revealing pale golden fur. Nothing further happened for several minutes and then the head appeared through the crack in the case. He continued to struggle free from his 'water world armour' and, soon, most of the abdomen was out and all







six of his legs. At this point, he flopped backwards and was hanging upside down with the end of the abdomen still inside the case. I guessed he was tired but, after ten minutes or so with no further movement. I realised he was exhausted and the cold weather was hindering his emergence even further. With one final push, he heaved his tail out and sat shivering in the cold air while his body and wings inflated. The whole process took over 2 hours but, eventually, he 'revved up' his wings and took to the air for the first time. He flew into the trees and I didn't see him again. It was amazing to see the whole process from start to finish.

Another occasion that sticks in my mind was during a survey to Coke's Pit, Lake 34 (CWPT nature reserve near Somerford Keynes) in 2011. It had been a showery start to the day but, by 11am, the weather was hot and humid with steam rising from the vegetation as the temperature climbed. The Survey was done so it was time to get the camera gear assembled. Lying comfortably on a waterproof sheet, I watched (and photographed) the emergence of several Black Tailed Skimmers. What a wonderful sight to witness - especially when the adult insects posed perfectly for quite a while, covered in water droplets, before taking their maiden flights.

My final 'memorable' day happened in 2012. I have always wanted to see a Southern Damselfly and, despite numerous visits to the New Forest, had never been lucky enough to see one. On this particular day, I set off early with my good friend, recent convert to dragonflies & damselflies, and photographer, Rod Stowell. The weather was glorious with blue sky, sunshine and a warm southerly breeze. We stopped at the Hatchett Ponds for lunch and the place was buzzing with Darters but no Southern Damsels. (We did, however, spot and photograph, a Hornet Robberfly which is nationally scarce so that sort of made up for not finding a Southern Damsel). We carried on to the next location where we not only found the Southern Damselfly but also Small Red Damselflies, Beautiful Demoiselles, Banded Demoiselles and a Golden Ringed Dragonfly. It was early afternoon so all of them were enjoying a rest period following their mornings' hunting. That was perfect for us as we were able to photograph all of them with

little disturbance.

These are just three examples from two locations but, for me, every dragonfly experience is special. I can think of nothing better than settling down in the undergrowth, frequently getting scratched, bitten, stung and soaking wet, to watch these amazing prehistoric insects go about their day. DN

Further information:

The CWP; www.waterpark.org/. Maps of the area including lake numbers can be downloaded here http://www. waterpark.org/gen/water park map.html

The Cotswold Water Park Trust: www. waterpark.org/trust.html

The Cotswold Water Park Dragonfly Atlas Project; www.waterpark.org/trust/ dragonfly_atlas.html and www.waterpark. org/trust/dragonflies.html

Birders (and other naturalists) visiting the CWP may also like to visit the CWP Birding Blog http://cotswoldwaterpark. wordpress.com/ for up-to-date information on recent bird sightings.



Opposite: Emerging Downy Emerald at Cotswold Wildlife Park Opposite bottom: Emerging Blacktailed Skimmer.

Above: Southern Damselfly in the **New Forest.**

Rosie Ray In-flight photo competition

In DN 60 I put out a challenge and invited BDS members to submit their best in flight photographs and asked readers to vote on their favourites.

Unfortunately, I received too few votes to select a winner so I have delayed publishing until now.

Here are my favourite two photographs and my congratulations go to David Clarke (top)and John Pell.



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Notes & Observations

Compiled by Mark Tyrrell



On 22nd August 2012 I was at one of the many new field ponds at Briddlesford Woods (Peoples Trust for Endangered Species reserve) Isle of Wight when I saw a male Emperor take a mature female Common Darter. I was lucky to photograph the event and it wasn't until I viewed the photographs at home that I noticed that she had expelled two dollops of eggs. In fact it may have started as one dollop and been divided by the Emperor's moving of the prey's body. I assume that the expulsion of eggs is an involuntary reaction to the trauma. Is it possible that this behaviour has evolved as hasty ovipositing when in danger, to give the eggs a chance?

Dave Dan



I watched this pair of Large Red Damselflies attempting unsuccessfully to mate. The female was consistently unable to hook up with the male despite many attempts. It was only when I viewed the photographs I had taken with my macro lens that I realised that his abdomen was covered in tiny mites, which were presumably the cause of the problem, blocking access to his secondary genitalia.

The photograph was taken at Mugdock Country Park near Milngavie on the outskirts of Glasgow. I have photographed Large Red Damselflies here over many years but have never noticed these mites before.

Jeanette Stafford



I found this Keeled Skimmer with an extremely kinked abdomen at Holt Lowes in the summer of 2012.

I know that kinked abdomens are common, but wonder what could have caused this.

Jon Mee



It was a really cold and dull May day and this Large Red Damselfly was the only Odonata I saw all day. It was on a nettle leaf in a part of the woodland area and I noted that it looked strange as it had its wings out flat. At the time I looked in all the reference books for any info on this.

Andy Brazil, the Norfolk Butterfly recorder and a dragonfly enthusiast replied to my query as follows:

"Oh nice shot! yes, it's not unknown. They're maximising exposure to the sun I guess. There's a cost involved though, since damselfly and dragonfly muscles are wired oppositely. So while a dragonfly's wings will fall open when they relax their muscles, and they have to contract their muscles to raise them, the damsels have to exert force to open them, and they fall closed when they relax. So I suppose this is the equivalent of us stretching up towards the sun."

Derek Long



I was photographing a perched male Scarce Chaser on the River Nene on 26 June 2013, when he was suddenly attacked by a Banded Demoiselle. The Demoiselle succeeded in dislodging the Chaser from its perch and proceeded to set up territory close by. Both species exist in good numbers here, so the best territorial vantage points must be in short supply.

Mark Tyrrell



Dragonflies

at the Natural History Museum

Ben Price, Curator of Odonata and "Small Orders" at the Natural History Museum reviews the museum's dragonfly collection.

Natural history collections have played a critical role in the development of society in general and Biology in particular, and this was especially evident in the 18th and 19th centuries as naturalists developed collections. The way that we interpret the understanding reached by those pioneers is based in part on being able to examine for ourselves

the specimens that they collected and bequeathed to museums. As a result, natural history collections are one of the most fundamentally important institutions in Science, where voucher specimens are housed in perpetuity. These specimens represent an audit of the world, a permanent record of biological and geological diversity, embodying the research of generations. Furthermore they represent an opportunity for millions of members of the public to interact with and learn about the natural world.

The Natural History Museum (NHM) in London originates from the collection of Hans Sloane, an 18th century Naturalist, Doctor, past President of the Royal Society, and incidentally the inventor of Milk Chocolate! Hans Sloane bequeathed his substantial collection to the nation, "for the inspection of the learned and benefit of the public", on condition that it was purchased from his estate for the sum of £20,000 (equivalent to £2.5 million today). The money was raised in one of the earliest state lotteries, funding the purchase of Hans Sloane's collection and Montagu House in Bloomsbury

to house the collection. The British Museum opened its doors in January 1759 and entry was by written application with a maximum of one-hour visit per department; thankfully the collections are much easier to visit now.

When the collections began to outgrow their space in the 1850s, then superintendent Richard Owen, who incidentally coined the term Dinosaur from Dinosauria (meaning terrible lizard), forced the issue of a need for space and a separate museum solely for natural history. The British Museum (Natural History) sited in the purpose-built Waterhouse building in South Kensington, opened in April 1881 and received 40000 visitors in the first two weeks.

Today the Natural History Museum is one of four UK museums that receive over 5 million visitors a year. Its collections comprise over 70 million natural objects, almost half of which are insect specimens. Most of the specimens are housed in the new Darwin Centre, opened in 2009, where Botany and Entomology collections are kept under advanced climate controlled conditions.



Ben Price







Approximately 300 scientists work at the NHM alongside many scientific associates and volunteers and each year they publish more than 500 scientific papers and train over 150 postgraduate students.

The Damselfly and Dragonfly collections comprise 2000 drawers of specimens from all over the world. This collection amounts to an estimated 80-100,000 specimens and represents almost 4700 of the 5700 currently known species (over 80%), deposited in the collection over the last 250 years.

A very important part of the collection is the type specimen collection. When species new to science are described for the first time and formally published, the reference specimens (known as type specimens) for the species are usually deposited in a museum for permanent curation. Each type specimen defines the species with which they are associated and are used to compare any other potentially new species. The NHM collection houses the type specimens of almost 1/3rd of all known Dragonfly species, making it one of the largest collections of odonate type material in the world.

Curators are responsible for the health of the collection and to provide access to the collection. I'm in a unique position as I curate Odonata and eight other 'Small Orders' which include the Caddisflies (Trichoptera), Mayflies (Ephemeroptera), Stoneflies (Plecoptera), Lacewings and their allies (Neuroptera, Megaloptera and Raphidioptera), Scorpionflies (Mecoptera) and Webspinners (Embioptera). This huge diversity ensures I will never run out of opportunities to learn about these fascinating groups.

The health of the collection is paramount as there are numerous "agents of decay" that over time can impact these irreplaceable specimens to the extent that they are no longer useful research material. To preserve the specimens in the best possible conditions the Cocoon was designed with the specimens in mind, providing a secure and controlled collection environment. Temperature and relative humidity are constantly assessed using wireless sensors throughout the building to ensure the temperature lies between 15-18°C and the humidity between 40-50%. This environment prevents pest outbreaks (and the growth of mould), allowing us to avoid the use of harmful pesticides.

In addition the museum incorporates an integrated pest management program and a state-of-the-art quarantine facility for new material to prevent the accidental introduction of pests.

One of my current priorities is moving the specimens from the old cork slatted drawers which are not optimal for specimen storage as the cork has degraded, grips the pins too tightly and has soaked up the old pesticide residues. These specimens are being rehoused in plastazote foam-bottomed unit trays with each species separated into different unit trays, relabeled and organized based on the updated taxonomy for each group. All specimens are currently captured in the museum database as species "lots" to enable rapid location of each species in such a large collection, and I am currently implementing specimen level records in the database, a rather large task for my ~500,000 "Small Orders" specimens!

The specimens housed in the museum comprise a wealth of biodiversity information and increasingly that data needs to be accessible online. To this end individual specimens are in the process of being "Digitized" through specimen level database capture and by imaging the specimen and associated labels. In most cases the images are single photos of the dorsal view (Figure 6A) but in the case

Opposite page: The iconic Waterhouse Building in South Kensington.

Top: Portrait of Hans Sloane, his private collection formed the basis of the Natural History Museum.

MIddle: (A) One of the cabinets making up the Dragonfly collection and an example of (B) the old cork slat, and (C) the modern unit tray organization of the collection.

Bottom: The Cocoon houses almost all of the insect and plant collections at the Natural History Museum and includes the Explore Tour, where the public can see some of our research and learn about the scientific process.



of type material additional diagnostic features such as the anal appendages are also imaged (Figure 6B,C) to facilitate identification. These images and the associated specimen information such as identity and locality will be available early next year through an online museum data portal.

One of the main responsibilities of a curator is to enable access to the material held in the NHM collections for scientific research. Last year the NHM hosted over 3500 scientific visitors, resulting in a total of 9000 "visitor days" spent on the collection. Alternatively specimens can be sent out on loan to researchers around the world and annually the museum sends up to 50,000 specimens on scientific loan.

Natural history collections are not only a heritage, ideally they are growing entities that provide indefinite secure housing of any new reference material and facilitate open access to new biodiversity information. Collaborative expeditions with local institutions to collect new material, particularly from historically under collected regions are crucial. In many cases the regions that we know the least about are under the greatest threat of habitat loss and by learning about the biodiversity in these areas we can help to make them priorities for conservation. To those BDS members who have personal dragonfly collections please consider adding the NHM to

your will, your collections will be safely housed in perpetuity and made available to the research community. Who knows what new knowledge may come from the specimens that you have collected on your travels! If you are interested in donating your specimens please contact me for further details.

Working at a museum also allows direct interaction between scientists and members of the public (over 5 million in person and 8 million online) and part of being a curator is public outreach including taking part in the daily Nature Live interviews in the Attenborough Studio, writing online blogs, and networking with societies such as the BDS which I hope to work closely with in the future.

In addition to the main collection the Angela Marmont Centre (AMC) in the Darwin Center houses a synoptic collection of British insects and plants, including representatives of all British Dragonflies. It is a hub for amateur naturalists, enthusiasts and other societies studying British wildlife. The AMC is happy to host individuals and groups who want to see the collections and/or work in the AMC to hone their ID skills or run workshops and it would be great if future BDS events could be hosted at the NHM. Anyone interested in using the AMC facilities is welcome to contact the Head of the AMC: John Tweddle (

Having just started at the NHM I have big plans! Within the next few years I hope to have all specimens of the nine orders in my care individually recorded in the museum database, imaged and freely accessible online. This is a huge undertaking and if you would be interested in helping out as a volunteer or finding out more about the NHM Odonata and "Small Orders" collection please send me an email would love to hear from you!

Top: An example of the digitization on going in the collection: specimen of Anotogaster basalis (A) Habitus, (B) Dorsal and (C) Lateral views of the anal appendages.

The Norfolk Hawker

returns to Cambridgeshire

recounts how
the Norfolk
Hawker has
colonised former
gravel workings
in deepest
Cambridgeshire,
returning to the
County after an
absence of over
100 years.

A male Norfolk Hawker discovered by Steve Brooks holding territory over Water Soldier *Stratiotes aloides* in the northwest corner of Hayling Lake, Paxton Pits, Cambridgeshire, on 2 July 2011 appeared at the time to be one of those chance discoveries of a lone vagrant. It remained faithful to the site and was seen sporadically until 15 July. Paxton Pits is a local nature reserve managed by Huntingdonshire District Council with the roughly four hectare Hayling Lake the southwesternmost water body, fished for its carp. It is the only lake in the complex

with Water Soldier, which was originally introduced some twenty years ago by the then fisheries manager with the aim of selling it commercially. It has clearly found conditions very much to its liking as it was recorded as well established in 1997 and by mid-summer now covers approaching a hectare of the water surface of the lake.

The following year, on the morning of 10 June 2012, I was participating in the annual Paxton Breeding Bird Survey with my wife Debra, when we chanced upon a pristine Norfolk Hawker at 0710hrs sunning itself on an east-facing bramble

bank on the west side of the meadow adjacent to Rudd Lake which lies to the northeast of Hayling Lake. Fortunately I was carrying my camera and was able to get some frame-filling photographs which showed that this was a female. The site is about 400 metres from the location of the 2011 male. It seemed too much of a coincidence that the species should occur two years running at almost the same site. There were no further sightings in 2012, but I resolved to have a thorough search in 2013, including arranging with the site rangers to take a boat out on to Hayling Lake to collect exuviae from the Water Soldier.

The late start to Spring this year meant that visits to Hayling Lake on 25 and 27 May produced only damselflies on the wing. We were then away from 31 May through 3 June, the first really good dragonfly weather of the Spring.

A visit to Hayling Lake on the late morning of 4 June produced no adult dragonflies but there had clearly been an emergence over the previous few days as at least 15 large dragonfly exuviae were visible on the Water Soldier but tantalisingly out of reach from the bank, though as both Hairy Dragonfly and Emperor occur here (of the species likely at this date) I assumed that these were the species concerned.

By coincidence, while I was out at Hayling Lake that morning, David Anderson (dragonfly recorder for



Above: Water Soldier on Hayling Lake.

Bedfordshire) emailed me with the news that a Norfolk Hawker had been seen and photographed in Potton Wood, north Bedfordshire on 3 June by Ian Woiwod. David was aware of the 2011 and 2012 sightings at Paxton and wrote "Paxton Pits is only 8 miles from Potton Wood and mainly down the River Ouse and perhaps the biggest block of woodland in the area! Have there been any sightings of Norfolk Hawker at Paxton Pits this year?" Clearly, I needed to examine some of the exuviae seen that morning, so armed with a 'Heath Robinson' collecting device - a fruit punnet on the end of a 3-metre telescopic pole - I returned on the 6th and managed to collect six exuviae. Closer examination of the cerci showed that I appeared to have five male and one female Norfolk Hawker! I emailed photos to Steve Cham and Pam Taylor who were able to confirm the identification. Norfolk Hawker was back breeding in Cambridgeshire for the first time since the nineteenth century.

My boat trip was arranged for 12 June, when one of the rangers, Matt Hall, took me out on to Hayling Lake. We spent over two hours searching for exuviae among the Water Soldier in the area where I had collected the six exuviae from the bank on 6th. We collected every dragonfly exuvia we saw within range, but because of the difficulty manoeuvring the flat-bottomed steel boat through the dense growth of Water Soldier only sampled a transect approximately 40 metres long and 10 metres wide. The majority of exuviae were collected from the innermost 20 metres of Water Soldier growth - a







sample area of some 200 square metres. Scanning the Water Soldier farther out with binoculars revealed rather few exuviae, and those visible all appeared to be Emperors.

Total numbers of exuviae collected from the transect:

- Norfolk Hawker: 11 males and 9 females
- Emperor: 25 males, 21 females and 1 unsexed
- Four-spotted Chaser: 1 female

As well as the more obvious differences between Emperor and Norfolk Hawker exuviae in size, number of lateral spines, and head/eye shape, most of the Norfolk Hawker exuviae stood out in the field immediately by their dark colour, some almost black, though the palest approached the Emperors in shade.

We briefly sampled another area of Water Soldier growing in a more exposed position towards the centre of the lake and adjacent to a reedbed extending out into deep water and here found only four Emperors.

Subsequent to the boat trip and with the benefit of recent experience, three additional undoubted Norfolk Hawker exuviae were 'scoped and one more found in the water adjacent to the bank on 20 June, giving a minimum confirmed total of 30 emergents, though I suspect the actual number is considerably higher.

lan Dawson

Regular visits by me throughout June and July produced emerging Emperors on Water Soldier on 8 and 11 June with the first Brown Hawkers on 25 June, but no Norfolk Hawkers were seen to emerge, suggesting that the majority had indeed appeared at the very start of June. Large numbers of Brown Hawker exuviae were in evidence by early July.

I was unable to visit on the first day of warm, muggy weather on 18th June, but in similar conditions on the afternoon of 19th June, I watched at least three, and possibly as many as half a dozen different Norfolk Hawkers, flying low over the Water Soldier or along the edge of the reedbed, skirmishing and landing briefly from time to time.

Up to three male Norfolk Hawkers were then seen on my every visit in suitable weather at all times of the day through to 22 July when a single was still present, spending long periods perching. By this date numerous Brown Hawkers were holding territory. Following torrential thunderstorms throughout the night of 22nd/23rd my next visits on 24 and 25 July both proved negative, so it seems quite likely that the individual on 22nd was the last of the year.

Although I did not see mating, I met someone who had seen a pair in cop. in early July. However, on 25 June at 1050hrs I watched a female land on the Water Soldier and start ovipositing, the tip of her abdomen at or below the water surface, and the same or another female in a different spot half an hour later. On 13th July around midday three Norfolk Hawkers were skirmishing together, and shortly afterwards I saw a female, possibly one of the three, ovipositing in the outer edge of the emergent carpet of Water Soldier, well away from where all the exuviae had been found.

The above summary is based almost entirely on my own observations on at least 24 dates, sometimes more than once a day, though most visits were for less than an hour. Many other people, both local and from farther afield, visited to see the Norfolk Hawkers. No doubt there is a higher peak count than mine.

The numbers of exuviae of both sexes, the regular patrolling males, and the females seen ovipositing some distance apart over a three-week period lead to the conclusion that the species appears to be firmly established at Hayling Lake. Some intriguing questions



arise. Are these the offspring of a wandering mated female from Norfolk or Suffolk populations, or perhaps from Continental Europe? Has the species been present in low numbers, unseen, for several years? After all, despite widespread awareness of its presence in the area, as far as I know only two individuals have been seen locally away from the northwest side of Hayling Lake – by Rudd Lake in 2012 and in Potton Wood this year. It will be very interesting to see what 2014 brings, given that Norfolk Hawker is believed to have a two-year life-cycle from egg to adult.

Opposite Top: Female Norfolk Hawker, 6 June 2012

Opposite Bottom: Collecting exuviae from the Water Soldier, 12 June 2013.

Opposite Left: A Norfolk Hawker exuvia in-situ on Water Soldier, 12 June 2013.

Left: Digiscoped perched male Norfolk Hawker, 19 June 2013.

Safeguarding Our Dragonflies & Damselflies - A Lasting Legacy

A legacy to the British Dragonfly Society will provide a lasting gift. Dragonflies and damselflies are beautiful insects. They are spectacular creatures that have inhabited Earth for over 300 million years. With your support, by remembering the British Dragonfly Society in your will, we can safeguard our dragonflies and damselflies to provide a lasting legacy that will ensure future generations enjoy these fascinating insects.

Gifts, in wills, make a positive difference. Legacy gifts enable The British Dragonfly Society to:

Conserve dragonflies and their wetland habitats.

Conserve Nationally-Important species.

Record and monitor the distribution and populations of dragonflies.

Encourage the scientific study and research of dragonflies.

Undertake education projects.

Please consider leaving something to the BDS when you write or update your will.

If you are able to do this then please accept our thanks.

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

"I give the sum of £............ to the British Dragonfly Society (Registered Charity No. 800196), 23 Bowker Way, Whittlesey, Peterborough, PE7 1PY, for its general purposes."

Henry Curry

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Menorca de Libellula



Ken Crick
introduces
Dragonfly
News to the
delights of the
dragonflies of
Menorca.

Menorca is not the first Mediterranean Island to leap to mind when considering a combined holiday and dragonfly hunting location. A species guide compiled from the "Field Guide to the Dragonflies of Britain and Europe" & cross referenced with "Libellula. Atlas of the Odonata of

the Mediterranean and North Africa. Supplement 9", produced only 20 species.

Dragonflies can be found on the island at almost any time in the year. The flight season really starts to take off around mid April, when large numbers of Blue-tailed Damselfly emerge in unison with Scarlet Darter Crocothemis erythraea. Particularly large numbers can be found in the early evening on the tracks beyond the visitor centre at S'Albufera Des Grau. During May, the pond blanketed in Water-crowfoot, some 200 yards before reaching the visitor centre, is worthy of study with Redveined Darter Sympetrum fonscolombii, Black-tailed Skimmer and Western Willow Emerald Damselfly Lestes viridis found in teneral form at its margins. Throughout March and April there can be as many as 70 temporary ponds across the island. Many of these pools are now being actively managed. Readily accessible temporary pools can be viewed from

the islands coastal track, the "Cami de Cavalls". Parking at Cala Mesquida, one almost immediately encounters a board walk where a large area temporarily floods as early as October and Lesser Emperor Anax parthenope can be seen, egg laying in tandem among the fleshy stems of salt marsh plants. Continuing over the boardwalk and along the Cami de Cavalls to Macar de Binillauti a shallow coastal pool and ditch are located along with a number of deep water storage pits situated beyond the beach, adjacent to a dilapidated farm building. Both these aquatic sites have proved particularly productive with Lesser Emperor, Red-veined Darter, Common Darter, Migrant Hawker & Southern Emerald Damselfly. Leaving the sandstone north of the island we cross to the limestone south with its deep gorges known as Barrancs. All are crossed and/or circumnavigated by the Cami de Cavalls. Barrancs opening to the sea at Cala en Porta, Cala Trebalugae and Cala Galdana have small rivers running through them and offer views of Emperor Dragonfly, Keeled Skimmer, Black-tailed Skimmer, Migrant and Southern Migrant Hawker Aeshna affinis, Willow Emerald Damselfly Lestes viridis and Copper Demoiselle Calopteryx haemorrhoidalis. It is worth exploring as much of the rivers length as possible. Small bridges crossing embryo streams provided the largest species content and good photo opportunities.

On this southern coast is the resort of Son Bou. Here is found a large area of open water separated from the sea by a sand bank. At first site it does not appear very promising. However if you travel west through the resort parallel to the inland shoreline you will arrive at the Hotel de Jardin. Follow the Cami de Cavalls to the side and behind the hotel and within 200 yards from May to September you should encounter good numbers of Copper Demoiselles. Following this track north of the marsh



Ken Crick

during the month of June should provide good views of Norfolk Hawker Aeshna isoceles. Both the marsh and the Barrancs support populations of Small Red Damselfly Ceriagrion tenellum, Keeled Skimmer, Black-tailed Skimmer, Red-veined Darter, Common Darter and Broad Scarlet Dragonfly.

Even the Stone Age archaeological sites scattered across the island have storage basins carved into the bedrock, which when flooded, often have resident male dragonflies in attendance. The most productive site is probably at Cala Morell.

My two primary sources of reference offer Common Winter Damselfly Sympecma fusca, Mediterranean Bluet Coenagrion caerulescens, Goblet-marked Damselfly Erythromma lindenii and Violet Dropwing Trithemis annulat as resident species. I have failed over a number of visits since 2007 to find any of these four species. In the Barranc del Galdana in May 2007 I did see a single male Broadbodied Chaser, though supplement 9 above shows no records for the species post 1980.

Neither of my source references shows the presence of Southern Darter Sympetrum meridional; however during a visit in September 2012 they were everywhere.

Most of the Odonata listed can be found in the UK but not in the stunning landscape and almost guaranteed sunshine, extending the opportunity to observe dragonflies into the late evening.







Opposite page: Scarlet Darter

Crocothemis erythrea

Top: Barranc de sa Cova, April

2013.

Middle: Copper Demoiselle Calopteryx haemorrhoidalis.

Bottom: Cala Mesquida temporary

pool, May 2013



members' gallery

Roger Pritchard has had a photographer's interest in dragonflies and damselflies for some years. Now that he has finally joined the BDS he hopes to learn more about these fascinating insects.

- 1) I was taking pictures of Small Red-eyed Damselflies in the Queen Mother's Garden at Walmer Castle, Kent when a female Emperor appeared just a few feet away and began ovipositing. The strong reflection made this shot irresistible.
- 2) This Four-spotted Chaser held still just long enough for me to poke my lens in its face. Taken at a pond in Chapel Stile, Cumbria







- 3) It was mid-October and the air temperature was only about 15 or 16°C. These two Common Hawkers were leaving it late to reproduce but they took advantage of sunny, relatively calm weather. Taken at Blea Tarn, Langdale, Cumbria.
- 4) I was on my way back to the car after a not very successful dragonfly foray when a female Black-tailed Skimmer captured a damselfly in flight and settled down to its meal. I have seen dragonflies eating an assortment of insects but I hadn't seen one eating a damselfly before. It turned a so-so day into an interesting one. Taken at Sandwich Bay Bird Observatory, Kent. DN



Whitefaced Darters

take-off in Cumbria



David Clark & John Dunbavin report with news from the Cumbrian re-introduction project.

And Vicky Nall of the Cheshire Wildlife Trust introduces a similar project at Delamere, Cheshire.

2013 is actually year 4 of a project initially programmed for three years: it has now been extended for a further two years at least.

After two successive summers of very poor weather, 2013 came as a great relief, though the late winter cold spell delayed emergence considerably. This was especially the case at the donor site, which was almost a month later than earliest known dates. The pools were very slow to warm up, and it was well into June before emergence really got going. This threw well-laid plans into some chaos - and for the first time in the project we did not collect any mature larvae to translocate. In the end however, we were able to show that at least 2500 Whitefaced Darters had emerged at the donor site, and that breeding activity there was intense. The species usually has a 2-year life cycle and it was interesting to note that there was nothing to suggest that the poor summer of 2011 had impacted adversely on numbers emerging.

At the re-introduction site, Foulshaw Moss, we employed Tony and Heather Marshall of Marshall Ecology to undertake systematic monitoring of 5 pools in the introduction area. They covered the entire emergence period, and extended observations to include adjacent pools. The results proved extremely interesting. The total number of exuviae they collected was a pleasing 493 - and as we had not introduced any mature larvae in spring 2013, all of this emergence derived from stock that had developed in the pools over previous years. What was particularly encouraging was that a significant part of this emergence was at pools into which either no stock introductions had ever been made, or had only been made 3 years ago. There was thus clear evidence of on-site breeding, presumably in 2011. For the first time ever, mating and oviposition were observed; males were present at pools from late May until late July - including pools adjacent to the group of five on which the re-introduction is centred.

A new departure this year was an attempt to translocate eggs - an alternative to moving Sphagnum containing hatchling larvae. The process is easy in theory, though less so in practice. A female has first to be caught - which was most easily done by finding, stalking and then netting a mating pair. Once caught, the female was held by the



David Clarke & John Dunbavin



wings and her abdomen dipped into a tube of water. This normally induces her to produce eggs. However, not all females responded in this way, and the quantity and fertility of eggs produced varied much. (Presumably, this was affected by how long the female had been mating, her age and other factors). Fertile eggs showed signs of development a few days later. In the end just two batches, numbering perhaps about 300 were judged suitable to move.

It has been obvious that this year's exceptional summer must have maximised breeding activity at both donor and receiving sites. Certainly the number of observations at Foulshaw of males at pools, and of mating and egg-laying, gives some confidence that the new population is now becoming established. Unsurprisingly, sightings extended beyond the group of small pools which we had originally chosen for the project, all of which will make future monitoring a more complex process, with increasing difficulty of distinguishing between introduced and locally bred individuals. We may perhaps think about sampling for larvae as a quick way of confirming the species' presence at some parts of the site.

We will now have to wait patiently, presumably until 2015, to see the real results of this year. Further translocations and monitoring work will continue for at least another season. It will be particularly interesting to see how numbers fluctuate in future, given this species' apparent 2-year life cycle - and the vagaries of the

weather.

Once again, the help of Cumbria Wildlife Trust volunteers has been invaluable in monitoring exuviae at the donor site. The Trust is currently working hard at Foulshaw on a large rewetting programme and the site should be easier to visit next year. From what we have noticed this year, its fame as a White-faced Darter site is already spreading rapidly through the natural history community.

White-faced Darters in Delamere

With the apparent success of the Cumbria White-faced Darter reintroduction project, Cheshire Wildlife Trust, in partnership with Natural England, The Forestry Commission and the British Dragonfly Society, are now embarking on a similar reintroduction project in Delamere Forest, Cheshire.

Records of White-faced Darter in the Delamere area date back as far as 1882. Adults were present at many sites but the last record of breeding was in 2003 and the species is now considered to be extinct in Cheshire. In 2003, a project entitled "The Lost Meres and Mosses of Delamere" identified restorable basin mires and since then there has been widespread restoration work across the peat basins. A feasibility study was conducted in 2011 which discovered several basins suitable for White-faced Darter with minimal work and Doolittle

basin now has suitable habitat for the species.

Fenns and Whixall Mosses in Shropshire and Chartley Moss in Staffordshire have been selected as donor sites and translocation of 100 final instar larvae (50 from each site) to Doolittle was conducted in late April 2013.

The first season went well and appeared to be successful although success cannot be declared so soon after the project has begun and the methodology has been to increase success in future years.

Only four exuviae were counted, however this may be due to the large area used for larval release. Doolittle is a very large pool without tangible margins and with much emergent vegetation throughout the open water meaning that many emergence supports were not accessible for counting, even in waders. Next year, larvae will be released in suitable discrete areas closer to the edge.

Adults were sighted in Delamere on four occasions this season. The first was an individual mid-emergence that was watched with much enjoyment until it took its maiden flight – straight into a sparrow's mouth! However, after this a mature male was seen holding territory on two occasions and a female was seen ovipositing on another – proof that the species could survive in Delamere Forest!

A second stage of the reintroduction took place in August, with the translocation of surface sphagnum from the donor sites where females were seen ovipositing throughout the season.

We were obviously blessed with the summer this year but we are pleased with how the project has gone and eagerly await the following season to begin the second year of the long-term return of the White-faced Darter to Delamere Forest. Cheshire Wildlife Trust would like to express thanks to the Forestry Commission, Natural England and British Dragonfly Society for help and advice throughout the season and the extensive number of volunteers whose help has totalled over 365 hours over the season!

Opposite: Female ovipositing at the new site in Cumbria.

Above: Inducing ovipositing at the donor site.

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Another piece of Smallhanger is lost



As tungsten mining starts around Smallhanger, Dave Smallshire laments the likely loss of access to Devon's best dragonfly site.



Dave Smallshire

As 2013 is likely to be the last year in which access to Smallhanger is guaranteed, I had to pay a visit to my favourite (and Devon's best) dragonfly site: Smallhanger. Work to start mining tungsten on adjacent land at Hemerdon is due to start in the autumn and the normal access route is likely to be lost. Spoil will be tipped on Crownhill Down, to the west of Smallhanger, and no doubt trucks will have direct access from the mine, immediately south of the area known as Smallhanger. Houses at Drakelands (by the ford, for those who know it) have been compulsorily purchased and the inhabitants have moved out

During my visit, on 8 August, it was clear that, although no work had begun at Hemerdon, a further section of Smallhanger - at the north-western end of the site - was in the process of disappearing. Topsoil was being removed from a newly-fenced area, prior to re-working for clay. The area lost included a very nice pond where at least 12 species were known to breed, including both of the site's specialities, Small Red Damselflies and Scarce Bluetailed Damselflies. Heathland species like Common Hawker, Keeled Skimmer and Black Darter also bred there. However, all of these and nine commoner species were found in the remaining part of Smallhanger. Totals included some 50 Small Red, five Scarce Bluetailed and lots of Emerald Damselflies, eight Common Hawkers, about 30 Keeled Skimmers and three Black-tailed Skimmers and about 40 Black Darters.

The best news, though, was that an isolated, old clay-pit (just south of the two fishing lakes), was looking quite good and held 37 Small Red Damselflies. The habitat also looked for Scarce Bluetails, which have been seen here in the past, and for the rare Marsh Clubmoss (present extensively over an area of roughly 80m x 20m). Provided the hydrology of this pit is not badly affected by the reworking that is scheduled over the next decade or so, this isolated area, which is otherwise not under threat, could retain at least some elements of what makes Smallhanger so wonderful. But whether we'll be able to get access to it remains to be seen!

As part of a Review of Mineral Permissions some years ago, Devon Country Council required some compensatory habitat to be provided nearby. Sites at the now derelict Lee Moor clay workings were mooted, but I'm not aware that anything has happened yet. Watch this space



Opposite: BDS Field Trip around Smallhanger, 2008.

Above: Southern mire in a clay pit.

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Reviews



Neidonkorennot. Demoiselle Damselflies. Winged jewels of silvery streams.

Sami Karjalainen and Matti Hämäläinen. Caloptera publishing, Helsinki, Finland, 2013. Price €36

Review by Steve Brooks

The Calopterygidae or Demoiselle damselflies (Neidonkorennot in Finnish) include some of the most beautiful and charismatic dragonfly species in the world. You don't have to be a dragonfly enthusiast to have noticed these species. They capture the attention of anyone who has spent time on the banks of an unpolluted river on a sunny summer day. But this group offers more than good looks. The demoiselles also reward deeper study of their complex and fascinating behaviour and mating strategies, including courtship displays unrivalled in the dragonfly world.

This family of damselflies is the focus of a new book by two Finnish dragonfly experts. Dr Matti Hämäläinen is an authority on the taxonomy of south-east Asian dragonflies and has described many new species. The demoiselles are particularly diverse in this region and 53 of the world's 126 species occur there. Dr Sami Karjalainen is an award-winning entomological author and also a highly accomplished dragonfly photographer. The book is lavishly illustrated with a large number of his photographs. These are some of the best dragonfly images I have seen. They not only provide portraits of many of the world's species but also illustrate numerous aspects of their life-cycles and behaviour, including

some wonderful in-flight photographs. I was particularly entranced by the head-on image of a male Copper Demoiselle *Calopteryx haemorrhoidalis* flying, with wings outstretched, down the middle of a woodland stream which sparkles in the French sunshine. But this is just one image of many which will captivate dragonfly novices and experts alike.

The first half of the book provides detailed information on the life history and behaviour of demoiselles, drawing on the latest scientific literature to provide authoritative examples from throughout the world. Publications are referred to numerically in the text, to prevent the flow of the narrative being interrupted, and a full reference list is provided at the end of the book. However, this is not a dry scientific treatise; the authors succeed admirably in bringing the group to life with vivid accounts based on their own substantial field observations and tremendous photographs. The second half of the book deals with each of the 17 world genera. Here we are provided with descriptions of their appearance (supplemented of course with photographs of typical species), habits, habitats and conservation status. Three closely related families (Rubyspots Hetaerinidae, Jewels Chlorocyphidae, and Satinwings Euphaeidae) are then dealt with in subsequent sections. The book concludes with a review of demoiselles in human history and culture. The book is written in Finnish and English, the Finnish text appearing on the left of each page and English on the right. So the book could also be used as a guide to learn Finnish!

I would highly recommend this is a very readable book, which will fascinate dragonfly aficionados who will be booking their holidays to south-east Asia before they reach the end. There is also plenty of information about the European species to make us look more closely when next exploring rivers nearer to home. It is also the perfect introduction to dragonflies for those who have not yet caught the bug.



Dragonflies and Damselflies of the Bristol Region.

Ray Barnett, Richard Andrews, Tim Corner, Rupert Higgins, John Martin, and Abigail Pedlow. Bristol Regional Environmental Records Centre (BRERC), 2013. brerc.org.uk/services/publications. htm

Review by Mark Tyrrell

The Dragonflies and Damselflies of the Bristol Region is the fourth book in the series of wildlife guides for this area of the UK, following on from editions focussing on flora, butterflies and moths.

Presented as a neat hardback at 150 pages, this regional guide is lavishly illustrated with colour photographs throughout. As a keen dragonfly photographer, I always take pleasure in seeing the use of good photographs to illustrate regional atlases, and the quality here doesn't disappoint. The picture of a male and female Broad-bodied Chaser perched face-to-face is a particular favourite of mine. The authors have called upon the services of a number of local photographers which makes this a very inclusive book. In the species section, however there is a picture of a Migrant Hawker mislabelled as a Common Hawker, which is a frequent mistake in identification.

After the usual introductions, and a foreward by TV presenter Philippa Forrester, Chapter 1 introduces us to dragonflies in the geological record. I don't recall seeing such a chapter in any regional guide, but the reasons why it is included here soon become clear. Two local quarries have yielded fossil dragonflies and the species *Boltonites*

redstockensis is celebrated locally as it is only known from a partial wing found at Tyning Colliery near Bath.

Chapter 2 is a very thorough treatise on the conservation and habitats in the region. I always find these sections fascinating to compare and contrast with those in my home county. This chapter also summarises the best sites in the region in great detail The detail presented here will, I am sure be very important to help local landowners and conservation agencies plan habitat management strategies to conserve the dragonflies of the Bristol region.

The species accounts are well illustrated with copious numbers of full width photographs, usefully illustrating both males and females. Perhaps there are too many photographs at the expense of some deeper discussion on each species that interested readers may expect. The distribution maps plot presence centred on the actual recorded grid reference rather than the usual approach of plotting to 1km resolution. This type of distribution mapping can be confusing, especially in areas of high recording density. It is a shame that the maps don't plot abundance because it is not clear where the best sites are for each species. Rivers are marked on the maps and clearly show the association of riverine species such as Scarce Chaser and Beautiful Demiselle. Flight period histograms are also presented which are useful not only for local enthusiasts, but also provide a good comparsion between flight times over different zones across the UK.

This is a very important book for wildlife enthusiasts of the Bristol region and can be recommended to enthusiasts outside of the area for its detailed study. Coming in the same year as the BDS national atlas, it provides a valuable cross-reference between the two atlases to compare the national scene with the local one.

Dragonfly

David Chandler & Steve Cham, New Holland, £14.95 +p&p available from BDS shop) Review by Henry Curry

This beautifully produced new volume comes at a good price with high quality photography and a lively and 'chatty' text that is obviously designed to make the



reader feel included. This works very well and prevents the book becoming too technical or obsessive, even though an impressive amount of information is packed into its nearly 130 pages. In a work that encompasses Dragonflies from Europe, North America, Australia and South Africa we are guided by an experienced naturalist through the life cycle, feeding, flying, and mating, stopping off along the way to consider such interesting diversions as naming conventions and folk names.

Since this quality work is of such good value I feel duty bound to point out a few gripes that prevent it from being in the 'excellent' category for me. Apart from some relatively minor but glaring errors, for example the incorrect caption to pages 52-53, I was distracted by some quirky points such as the odd unit of 'kmph' for speed (surely kph?) and swapping dimensions between mm and cm. There were a few other items which I felt were obvious but missing; for instance, there are no diagrams of body plan or male/female differences, no arrows to indicate important anatomical parts, and no glossary. One line in a caption stated that it was easy to see the 'mask' in the associated photograph - well, yes, if you know what to look for. I would also like to have seen more mention of parasites, recording, and how we can help, though I appreciate that space was limited.

All in all then, readers at most knowledge levels can find much of interest in this stylish volume and the book can, as it states at the outset, be dipped into occasionally or read from cover to cover. The photographs are generally superb and the text flows smoothly with an easy and friendly style. Definitely a worthwhile addition to the bookshelf.



Dragonflight
Marianne Taylor,
Hardback
ISBN 978-1-4081-6486-0
Review by Lynn Curry

This book is about ones woman's quest to see all the UK dragonfly species, a challenge that took 2 years. Marianne is a birder who noticed dragonflies and has grown to love them. This is not a field guide, it is not a site guide, so where does this book fit in your library?

Don't make the mistake of going to the chapter about your favourite dragonfly and just reading that, as you may be disappointed. Instead you will find a description of a trip to a site, who she went with, how she got there, what the weather was like and what she saw there (birds, mammals, and of course, dragonflies). This can be a bit of a ramble. But we have all been there, got to a site to look for a specific species, or just to look for dragonflies in general and the weather turns bad, at least for dragonflies. So you look at what other stuff is available, such as plants, mammals, amphibians and birds.

I would like to bring to your attention the first 4 chapters, which are an introduction to Dragonflies, their origins, their life cycle, habits and a summary of which species you are likely to find in the UK. These chapters are written in plain English, they are not too technical and very easy to understand, especially if you are new to dragonflies.

The bit I especially like is when Marianne mentions a dragonfly for the first time, she uses the common name, she also includes the scientific name and its derivation.

In summary, and to answer my initial question, if you are an old hand and have been around dragonflies for a while this may not be the book for you, (unless you want to have a good read and have an "I've done that!" moment) but if you have a friend, especially a birder just getting into dragonflies, then this is the book for them.

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BDS Members Day

30th Annual Meeting on Saturday 16 November 2013 Oxford University Museum of Natural History, Parks Road, Oxford, OX1 3PW

9.45	Coffee
10.00	General Announcements by BDS Chairman Pam Taylor
10.05	Welcome and introductions Darren Mann
10.10	The River Nene: Beautiful and Scarce
	Mark Tyrrell, Northamptonshire Recorder
10.40	30 years of the BDS, a personal overview Andy McGeeney
11.10	Short Break
11.20	DragonflyWatch, the future of recording
	Dave Smallshire, DCG Convenor
11.40	Sexual conflict in dragonflies- pacemaker of evolution
	Prof. Georg Rüppell & Dr Dagmar Hilfert-Rüppell
12.20	AGM
13.00	Lunch
14.00	Introduction to the afternoon session Pam Taylor
14.05	White-faced Darters fly again in Cumbria & Cheshire
	David Clarke, BDS, and Vicky Nall, CWT
14.35	A farm buzzing with pond life
	Carl Sayer, University College London
15.05	'Emeralds' <i>Dave Chelmick</i>
15.45	Raffle and final announcements in main lecture theatre
	(Please do not bring any extra items for the raffle this year)
16.15	Close of meeting

- A donation is politely requested to help cover costs. We suggest a minimum of £5 from BDS Members / £10 from non-members.
- Please bring a packed lunch. Tea and coffee will be available before the meeting and at lunchtime.
- Any other queries please contact Dr Pam Taylor
- We strongly suggest you use Park and Ride facilities or other modes of public transport to reach the museum.
- For suggestions regarding accommodation please contact Oxford Visitor Information:
- Tel: +44(0)1865 252200 Fax: +44(0)1865 240261 Email:



Checklist of the Damselflies & Dragonflies of Britain & Ireland

Last Revision: Completely revised into three tables, Spring 2009

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

This category comprises 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)
Calopterygidae	Demoiselles	Aeshna juncea `	Common Hawker
Calopteryx splendens	Banded Demoiselle	Aeshna mixta	Migrant Hawker
Calopteryx virgo	Beautiful Demoiselle	Anax imperator	Emperor Dragonfly
		Anax parthenope	Lesser Emperor
Lestidae	Emerald Damselflies	Brachytron pratense	Hairy Dragonfly
Lestes dryas	Scarce Emerald Damselfly		
Lestes sponsa	Emerald Damselfly	Gomphidae	
		Gomphus vulgatissimus	Common Club-tail
Coenagrionidae			
Coenagrion hastulatum	Northern Damselfly	Cordulegastridae	
Coenagrion lunulatum	Irish Damselfly	Cordulegaster boltonii	Golden-ringed Dragonfly
Coenagrion mercuriale	Southern Damselfly		
Coenagrion puella	Azure Damselfly	Corduliidae	Emeralds
Coenagrion pulchellum	Variable Damselfly	Cordulia aenea	Downy Emerald
Erythromma najas	Red-eyed Damselfly	Somatochlora arctica	Northern Emerald
Erythromma viridulum	Small Red-eyed Damselfly	Somatochlora metallica	Brilliant Emerald
Pyrrhosoma nymphula	Large Red Damselfly		
Enallagma cyathigerum	Common Blue Damselfly	Libellulidae	Darters, Chasers, Skimmers
Ischnura elegans	Blue-tailed Damselfly	Leucorrhinia dubia	White-faced Darter
Ischnura pumilio	Scarce Blue-tailed Damselfly	Libellula depressa	Broad-bodied Chaser
Ceriagrion tenellum	Small Red Damselfly	Libellula fulva	Scarce Chaser
		Libellula quadrimaculata	Four-spotted Chaser
Platycnemididae		Orthetrum cancellatum	Black-tailed Skimmer
Platycnemis pennipes	White-legged Damselfly	Orthetrum coerulescens	Keeled Skimmer
ANISOPTERA	Dragonflies	Sympetrum danae	Black Darter
Aeshnidae	Hawkers	Sympetrum flaveolum	Yellow-winged Darter
Aeshna caerulea	Azure Hawker	Sympetrum fonscolombii	Red-veined Darter
Aeshna cyanea	Southern Hawker	Sympetrum sanguineum	Ruddy Darter
Aeshna grandis	Brown Hawker	Sympetrum striolatum *	Common Darter
Aeshna isosceles	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	Gomphidae	
Lestes barbarus **	Southern Emerald Damselfly	Gomphus flavipes	Yellow-legged Club-tail
Lestes viridis **	Willow Emerald Damselfly		
Sympecma fusca	Winter Damselfly	Libellulidae	Darters, Chasers, Skimmers
Coenagrionidae		Leucorrhinia pectoralis	Large White-faced Darter
Coenagrion scitulum**	Dainty Damselfly		
ANISOPTERA	Dragonflies	Crocothemis erythraea †	Scarlet Darter
Aeshnidae	Hawkers	Sympetrum pedemontanum	Banded Darter
Aeshna affinis	Southern Migrant Hawker	Sympetrum vulgatum	Vagrant Darter
Anax ephippiger	Vagrant Emperor	Pantala flavescens	Wandering Glider
Anax junius	Green Darner		
** - 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 Coenagrion armatum	Norfolk Damselfly	Corduliidae Oxygastra curtisii	Emeralds Orange-spotted Emerald
Coeriagnon annatum	Notion Damselly	Oxygastra curtisii	Orange-spotted Emeraid

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 the Newsletter 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 Lynn Curry, 23 Bowker Way, Whittlesey, Peterborough, PE7 1PY, Tel or visit our website (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.

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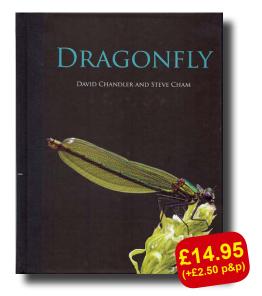
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BDS logo on one side, dragonfly photograph on the other

Black Darter; Migrant Hawker; Scarce Chaser; Golden Ringed Dragonfly





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