

# Skimmer

2015



*yorkshire branch*  
of The British Dragonfly Society

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*Cover photo:*

*Emerald Damselfly - *Lestes sponsa* at Harwood Dale – Paul Ashton*

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## Notes from the Chair

Well 2014 proved to be a successful year all round with well attended events, a fresh look to the website, the publication of new books and some great new finds in Yorkshire.

Events involved public walks, walks round local nature reserves, stalls at wildlife/science events and identification classes. With a run of better weather I think all could be classed as successful and I am particularly pleased as we gained some new members, who I welcome to their first copy of Skimmer.

Once again we have to say a big thanks to Paul Ashton our Webmaster, who has done a great job at overhauling the website in to its now refreshed format. If you have not yet found your way to it, it is well worth a look, as it gives plenty of information on species, sites, our events programme and contains lots of pictures.

It was great to see the publication in May of the new National Atlas, a tremendous achievement and probably the most important publication about the status of British dragonflies and their habitats ever published. The resultant information on distribution has since found its way in to the latest editions of the two brilliant field guides from Wildguides and British Wildlife Publishing. Now is a good time to buy a new field guide, if not the Atlas!

For me the highlight of 2014 has been the sudden invasion of VC62 (North-east Yorkshire) by both species of *Erythromma* (Red-eyed Damselfly). Further information on their sudden spread can be found elsewhere in this publication, but to say the least, I am excited to see how they fare in 2015.

Facebook continues to be a great communication tool, the array of pictures being published shows the skill some have acquired in taking photographs of these often difficult creatures. I have been amazed by posts from inside and outside of Yorkshire, from people who have found a dragonfly and want to know a little more about, it never takes very long before they get a response!

Okay, it has probably come to that point where I should sign off, but before I do, I would just like to thank all those who have helped run the branch, or who have contributed to our various media, or sent in records. Roll on summer 2015; it'll not be far away by the time you read this.

*Keith Gittens*

## Field Trips and Events – 2014 Summary

### Leven Canal Sunday, 8<sup>th</sup> June

Thankfully after the dismal weather the last time I planned this meeting two years ago, today turned out ideal, with a bit of sun to get the dragonflies active, but also a bit of cloud to then get them settled for photo opportunities. In all, eight of us met up at Sandholme Bridge, where our first female Hairy Dragonfly *Brachytron pratense* settled in the nettles next to the bridge, a good sign. Hairy Dragonfly *B. pratense* is a recent colonist to East Yorkshire, and has been a difficult species to see in the wider Yorkshire context, so with recent three figure counts from this location, this is the best place in the county to catch up with this species. None of us were disappointed, as we eventually saw 50+, several pairs in tandem, along with a female ovipositing near Waterloo Bridge. Another good find was a single Black-tailed Skimmer *Orthetrum cancellatum*, resting on the pale cut reeds laid down near the path. There were good numbers of Four-spotted Chaser *Libellula quadrimaculata*, with a *praenublia* form also posing well for all to see. Several Brown Hawker *Aeshna grandis* were observed, with a possible two exuviae found near Waterloo Bridge. *Zygoptera* wise there were good numbers of Red-eyed Damselfly *Erythromma najas*, Azure Damselfly *Coenagrion puella* and Blue-tailed Damselfly *Ischnura elegans*, along with small numbers of Large Red Damselfly *Pyrrosoma nymphula* and Common Blue Damselfly *Enallagma cyathigerum*.



Hairy Dragonfly



Red-eyed Damselfly

### Walton Colliery Nature Park (SE365174) Sunday 13th July 2014

Seventeen people attended the field trip to Walton Colliery Nature Park, which was organised jointly between the Yorkshire Branch of the BDS and Andrew McGuinness, who is a Countryside Officer for Wakefield Council. The event being held on behalf of the Friends of Walton Colliery Nature Park.

Although the weather was not perfect, being cool, overcast and breezy, we managed to record ten species and at least a further four would probably have been present if the weather had been better. When a dragonfly was spotted, usually perched on vegetation to

keep out of the wind, it allowed several of the group to take photographs, whilst I explained the salient points of how to identify it.

The highlights for many there was an Emperor patrolling over the lake and a Southern Hawker resting at a perfect height for photographs. The most unusual record, given the habitat was a Banded Demoiselle, which I suspect had come from either the nearby River Calder or Barnsley Canal.

In addition, ten species of butterflies and moths were noted, including a very impressive Puss Moth caterpillar, which unfortunately for the other attendees, was found by me in the car park after they had left.

Given the number of dragonflies we saw in less than perfect weather, we are organising another event this year to see if we can indeed improve on the number of species recorded.

### **Staveley Nature Reserve Sunday, 20<sup>th</sup> July**

Cleveland Naturalists Field Club / Yorkshire Dragonfly Group Joint Field Meeting

Ten CNFC and four YDG members made the trip to this Yorkshire Wildlife Trust reserve on a day when rain was forecast, though the weather was at the outset warm and humid – later that was to change markedly.

The outing started well at two new ponds at South Pastures, near the main entrance and car park. One of these ponds was so new that it was hardly vegetated. The dragonfly list here was; Emerald Damselfly, Common Blue Damselfly, Blue-tailed Damselfly, Brown Hawker, Southern Hawker, Emperor Dragonfly, Four-spotted Chaser and Common Darter. We had excellent and unusually close views of Brown Hawker and Emperor Dragonfly ovipositing, which allowed many photo opportunities. Quite some time was spent admiring the dragonflies of these two pools.

The group then moved on to the area of the East Lagoon to find Black-tailed Skimmer on a small pool on the right side of the path. Brown Hawker was evident throughout the reserve.

### **Jugger Howe Sunday, 27<sup>th</sup> July**

Scarborough Field Nats. / Whitby Nats. / Yorkshire Dragonfly Group Joint Field Meeting

Twenty-two members of the YBBDS, Scarborough Field Naturalists and Whitby Naturalists met at the car park on the A171 Scarborough-Whitby Road at Jugger Howe. Chris Hansell, the Wildlife Officer for the Fylingdales Estate, which owns the Moor, acted as guide and gave us a history of the moor and told us about the current management objectives.

The target species for the day were Golden-ringed Dragonfly and Keeled Skimmer. These were duly found, well studied and photographed in the valley below, through which Jugger Howe Beck flows.

Returning to the top of the Moor, Chris showed the group another pond on which further species were recorded.

## Events and Field Trips 2015

**Please note: Check our website for more information and updates on planned field trips, only a selection with brief information are detailed below.**

### **Sunday 14<sup>th</sup> June 2015 – Skerne Wetlands**

Leader/Contact – Paul Ashton 01430 803005 email vc61@erdragonflies.co.uk

Joint Dragonfly Walk with the Yorkshire Wildlife Trust at this new site which comprises of 60 ponds.

Meet – 10:30am, nearest postcode for meeting point is Cleaves Farm, Skerne YO25 9HU, after which YWT arrow signs will direct you to the meeting point on the morning of the event.

### **Sunday, 28th June 2015 - Walton Colliery Nature Park**

Venue – Walton Colliery Nature Park, Shay Lane, Walton, Wakefield, WF2 6PR - (SE364176)

Leader/Contact – Tom Hubball 01535 678334 after 6pm or email vc64dragonfly@virginmedia.com

Aim – A joint visit with the Friends of Walton Colliery and Andrew McGuinness, a Countryside Officer for Wakefield Council.

Meet – 10.30am at Shay Lane Car park, between Walton and Crofton.

Requirements – Bring packed lunch, binoculars and wear appropriate footwear.

### **Sunday 5th July 2015 - Royal Entomological Society Insect Festival**

The Yorkshire Branch of the BDS will be attending the RES Insect Festival, which is being held in York Museum Hospitium and Gardens on Sunday 5th July.

This event is a celebration for anyone with a fascination for insects - from exhibitors and traders to wildlife groups and the general public. The event will start with activities before the Sunday and further details will be posted on the RES website as they become available. Do come along and support this event. Please see <http://www.royensoc.co.uk/events/insect-festival-2015> for full details.

### **Sunday 26th July 2015 - Gilling Lakes, Ampleforth**

10.30am, leader Bill Hall, tel. 01642 823170 or 07753663589.

GR: SE583752. A walk through Yearsley Woods to Gilling Lakes. The lakes were originally fish ponds for Ampleforth Abbey and are still owned by the Abbey. The surrounding woods are managed by the Forestry Commission. The site holds a variety of dragonfly species and in 2014 Red-eyed Damselfly was recorded for the first time. It is believed to be the most northerly population in the UK of this species.

Meet just off the Ampleforth to Yearsley road on the forest drive near Windy Gates.

### **Saturday 8<sup>th</sup> August 2015 – Seamer Tip Ponds, Burton Riggs**

Leader John Hume, e-mail john.hume@yorkshiredragonflies.org.uk

Meet at 10.30am on Taylor Way Eastfield Scarborough TA035829.

This is off the road leading to Seamer Tip

## Dragonflies & Wildlife in North Cyprus Sep/Oct 2014

Brian Smith

When Lorraine's Brother Mike, who lives in North Cyprus, asked if we could look after his parrot, a Cockatoo called Molly, while he and his wife Mandy came to England, we could not refuse!

Mike's villa is out in the wilds, only about six other villas in the area. It is only a few hundred metres to the coastline, and about one kilometre from the mountains, with trees, olive groves and open land between, where the shepherds roam on most days with their sheep and goats, with lots of wildlife in the area, including dragonflies.



*Red-veined Dropwing*

We arrived late at night and Mike had left the porch light on, there being no other lighting in the area. After we had taken our luggage into the villa, we sat outside with the lights out looking at all the constellations in the sky, really good. We also heard Little Owls and watched a Gecko coming out of the wood panels on the side of the villa to catch moths, saw this most nights.



*Scarlet Dropwing*



The next day I walked around the villa (with my camera) and saw various butterflies including Oriental Meadow Brown, Swallowtail, Grayling and African Grass Blue among others; birds including Cyprus Wheatears, Bee-eaters, Hooded Crows, Spotted Flycatchers and Black Redstarts, various Agama Lizards and Green-eyed Lizards also Red-veined and Common Darters, quite a few of these landing on the thistles and round the swimming pool and three different types of Praying Mantis. After dinner Mike took us to Tatlisu reservoir only a few miles down the road where we saw Lesser Emperors and Violet Dropwings, lots of these, above the reservoir in the grass and flowers. We saw Black Pennants and Blue-tailed Damselflies. Later on we sat outside the villa listening to the Owls, looking at the stars with a glass of red wine to relax with, very nice day.

Mike took us to Famagusta Wetlands the following day, we went there three times during our time in Cyprus, lots of different wildlife there, over and around the main lagoon, we saw Little, Great and Cattle Egrets, Grey and Night Herons, Flamingo, Spur-winged Lapwings, Whiskered Terns, Common and Pied Kingfishers, Osprey, Black Kite, Common and Blue-cheeked Bee-eaters, Hundreds of African Grass Blue Butterflies, plus Swallowtails and other Blues. Further along there is a vast reed bed and we had a walk through this, a bit muddy in parts, but worth it as we saw various dragonflies, Lesser Emperors, Southern Skimmers and lots of Slender Skimmers, Scarlet Darters and Violet Dropwings landing all around us, along with Black Perchers which soon



*Broad Scarlet*



*Broad Scarlet*



fly off at the slightest movement, and Blue-tailed Damselfs among others, (the camera never stopped clicking.). Well worth visiting.

After Mike and Mandy went to England we had a few walks along the coast, about 10 kilometres either way, besides the usual Darters we also saw Violet Dropwings. We saw lots of butterflies including Pygmy, Millet and Mallow Skipper, Grass Jewel, and two which had never been recorded in the area a Plain Tiger and Levantine Leopard (very small). As I was taking some pictures of the Hummingbird Hawk-moths feeding on the flower heads, another butterfly landed on



*Black Pennant*



*Black Percher*

Lorraine's foot, using it's proboscis to get under her toe nails and between her toes, magical and later the same day another one landed on her foot doing the same routine, amazing. I took some pictures, identified it when we went back to the Villa as a Two-tailed Pasha. Also lots of birds including Masked and Red-backed Shrikes and Turtle Doves plus a Blue Rock Thrush, we also saw a Chameleon which was crossing the old coast road so I filmed it, as it reached the grass and the bushes it started to change colour. Surprisingly there

were Epaullet Skimmer dragonflies landing in the grass and the bamboo plants. Wonderful day. On one of the walks, as I took some pictures of Red-veined Darters and various blue butterflies in the grasses near some houses, a European Tarantula appeared, as I was taking some pictures, one of the home owners wanted to kill it, so I had to pick it up and put it in the undergrowth, it soon vanished.



*Red-veined Darter*



*Southern Skimmer*

We spent a lot of time sitting outside the Villa, as I have mentioned, there was lots to see from there, including grasshoppers, crickets and also Prionyx Wasps, I filmed one of them attack a grasshopper, kill it and drag it off into the grass, apparently they drag them into holes in the ground. Also Mud Dauber Wasps, which rolled the mud into little balls before flying off with them.

During our stay we visited a lot of reservoirs and two wetlands nature reserves, Famagusta and Oroklini near Larnaca. We did not see many different species of dragonflies, but most of what we did see was in large numbers.

In total we saw 14 dragonfly species, three which we had not seen before, Slender Skimmer, Black Percher and Black Pennant. 102 bird species, again four new ones for us. 23 butterfly species, eight we had not seen before, including the amazing Two-tailed Pasha and one we did not expect to see, the Levantine Leopard and 14 moth species. There were also lots of different Insects.

North Cyprus is well worth visiting for the wildlife, as you see more than expected because it is under recorded. Molly the Cockatoo was well looked after, spending a lot of time on my shoulder.



*Slender Skimmer*

## Ponds away from home

*Richard Shillaker*

When on holiday I like to go pond watching. However it can be a challenge to find ponds with public access. Here are some comments on ponds with public access (unrestricted access, or access limited to particular days or by prior arrangement) I have visited in the last few years in North Yorkshire and Northumberland. I hope you find these comments interesting and useful.

### **Whitby/Levisham area Calla Beck Pond, East side of Whitby near Marina (NZ 905102)**

I visited this small pond for the first time in August 2014. My dragonfly tally was rather thin: one male Common Darter and a large Hawker by the pond which I failed to identify, as well as another Hawker (possibly Southern) as I walked along the path to the pond. Earlier in the year a Broad-bodied Chaser had been photographed at this site. I was disappointed to see what appeared to be a significant patch of *Crassula helmsii* (New Zealand Pigmyweed), and part of the pond seemed to be becoming taken over by emergent vegetation. The pond is besides Calla Beck (also called Spital Beck). I walked down California Road then followed the footpath, staying on the south side of the beck.

### **Dundale pond, Levisham (SE 828918)**

This small rush-fringed moorland pond on Open Access Land is well known and is listed as a dragonfly location on the Yorkshire Dragonflies website. When visiting on a sunny day in late summer I have mostly seen good numbers of Black Darters (egg laying recorded) and Emerald Damselflies, as well as up to 2 hawkers trying to catch the Black Darters; I assumed the hawkers to be Common Hawkets because of the moorland location. This year (2014) I visited on a cool, windy day in August and saw no dragonflies but noted that floating sphagnum moss seemed more prominent than in previous years. I have occasionally walked on to the nearby Seavy Pond, which is much smaller, but I have never seen anything of particular interest there.

### **Ingleton/Austwick area Old Quarry Pond, Newby Moor, near Ingleton (SD 711697)**

This moorland pond (see photo), on Open Access Land within Newby Moor SSSI, is accessible from the B6480 Clapham to High Bentham road. I particularly like this pond and have visited three times. In March 2013, I counted over 50 clumps of frog spawn and over 15 strings of toad spawn. In June 2011, I saw three species of damselflies: plenty of Common Blues (egg laying recorded) and Blue-tailed (a few flying in tandem) and some Large Red Damselflies. I also found several damselfly exuviae and one hawker exuvia; other observations included many small moths in the Bur Reeds and invasive Floating Pennywort. According to Natural England's SSSI information this pond has the locally uncommon Narrow-Leaved Water-Plantain *Alisma lanceolatum* (however I did not notice any).





*Old Quarry Pond, Newby Moor*

### **Dry Rigg Quarry Pond near Helwith Bridge (SD 803692)**

This pond in a disused gritstone quarry is just off the road between Austwick and Helwith Bridge, and is adjacent to Swarth Moor SSSI. The pond is next to a side road which leads to a working quarry and large lorries regularly passed by when I visited in June 2011. The pond is surrounded by Open Access land and is easily viewed from a footpath beside the pond. I recorded Common Blue Damselflies, Blue-tailed Damselflies and Four-spotted Chasers. An internet search indicated that there are records of Great Crested Newts.

### **Pools on Swarth Moor, near Helwith Bridge (SD 808694)**

I found one main pool and some other smaller pools on this SSSI raised bog on Open Access land. Swarth Moor is an important site for Small Pearl-bordered Fritillary butterflies. I paid two visits in June 2011. On the first visit I definitely identified three species of damselflies (Common Blue, Blue-tailed and Large Red) as well as a Four-spotted Chaser. There were also brief views of two small blue damselflies in flight which I thought from their behaviour, and a possible hint of a red eye, might have been Red-eyed Damselflies. I therefore decided to revisit two days later. Unfortunately I could find no evidence of Red-eyed Damselflies but I did add the following to my previous observations: a male Broad-bodied Chaser (a very active flyer which I followed over a wide area), three male Black-tailed Skimmers, a female Blue-tailed Damselfly egg laying in submerged aquatic plants (with no male in attendance) and several Common Blue Damselflies flying in tandem.

## Northumberland

### Quarry House Moor Ponds (NU 108247)

I visited this complex of at least six ponds high up on the moors on Open Access Land twice in June 2014. These ponds, within an area of 2.5 Ha, were notified as an SSSI in 1968 because of their outstanding amphibian assemblage (Great Crested, Palmate and Smooth Newts, Common Frog and Common Toad). The ponds are now included in the larger Bewick and Beanley SSSI. When I visited the ponds there was a range of water quality: including turbid with added household white goods (nearest to the road), a pond with floating mats of algae, and a large crystal clear pond with a dense carpet of Charophytes and plenty of black tadpoles. See the photograph of one of the nicer looking ponds. I noted several species of damselflies: Large Red Damselflies (large numbers egg laying in the best quality ponds and even a few laying in the small poor quality ponds where there was an oily surface presumably from decaying algae), Blue-tailed, Common Blue (egg laying), Azure (egg laying), as well as dog-fights between Four-spotted Chasers. I enjoyed good views of several strange-looking larvae of a Dytiscid water beetle (probably *Acilius sulcatus*) swimming in open water, a brief sighting of a Great Crested Newt and hearing a Cuckoo calling from nearby conifers. To reach this isolated spot, leave the A1 at North Charlton follow the road into the hills, drive past a wind farm, when you have to stop to open a gate across the road you are getting close. Take the next side road on the right, just before a tall radio mast; the ponds are a little way down this road on both sides.



*Quarry House Moor Pond*



### **Ponds at North Bellshill Farm, near Belford (NU 122308)**

I visited this farm on Open Farm Sunday in June 2014. There are three ponds and I saw Azure Damselflies egg laying and Large Red Damselflies flying in tandem. The ponds were built to reduce runoff from the farm and hence reduce the nitrate input into Budle Bay where there are important eelgrass beds (eelgrass can be adversely affected by elevated nitrate levels). As part of the Open Farm Sunday there were live collections of pond life in tanks and trays, with experts on hand to provide information. A particular highlight of the visit was the dramatic vista of Budle Bay and Holy Island from the elevated location of the farm. The farm will be taking part in Open Farm Sunday again this year (7<sup>th</sup> June 2015 from 10 am). <http://www.bellshillfarm.co.uk/>

### **Pond at Mindrum House Garden, near Cornhill on Tweed (NT 842327)**

This attractive garden situated beside Bowmont Water (an SSSI) has had open days to the public during June and July. <http://mindrumestate.com/mindrum-garden/>. There are three ponds within the garden. During my June 2013 visit, I spent time at a well-established pond in a sheltered valley position with plenty of submerged and emergent aquatic plants. The water in this pond was very clear; several Large Red Damselflies were flying around and egg laying was observed (the presence of damselfly exuviae indicated successful breeding). I walked out of the garden onto the banks of Bowmont Water, which follows a braided water course with a number of areas of standing water connected with, or adjacent to, the main river bed. The garden is situated within Mindrum Farm Estate which has a range of wetland environments (not normally accessible to the public) for the benefit of wildlife and also to minimise flash flooding and pollution. The garden is opening for charity on the 21st June 2015. In addition, visits to the garden or the farm projects (I have only visited the garden) can normally be arranged by appointment (contact Tom Fairfax on 01890 850 634 or [tpfairfax@gmail.com](mailto:tpfairfax@gmail.com)). If you are thinking of contacting Tom to arrange a visit I suggest you mention that you are a member of the Yorkshire Branch of the BDS.

## **BDS - Yorkshire Branch Website**

Check out the website for the latest news, first sightings of the year, field trip diary, contact details, dragonfly locations to visit and how to submit your records.

Lost a previous issue of Skimmer! Latest editions available for download, please contact

John Hume for password

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## How Many Damselflies?

Bill Hall

For a number of years we have stayed at the Castle Howard Lakeside caravan park in early July, usually on the nearest pitch to the Great Lake because there is a dog walk around that part of the lake. Of course this means that it is easy to walk the 30 yards for a quick look at the dragonflies along the banks. The usual species to be seen are Emperor, Brown Hawker, Black-tailed Skimmer, Blue-tailed Damselfly and of course abundant Common Blue Damselfly. Actually this site was one of the first places that I started to look at dragonflies seriously, especially of course at the abundant damselflies. These turned out to be a bit of a trial for a beginner. As can be seen below, I took a number of pictures of different puzzling damselflies, which mostly turned out to be the different forms of female Common Blues!

This year I was looking out over the lake with binoculars and saw that every patch of water appeared to be covered with damselflies, no doubt Common Blues because they were far out from the sides. I thought 'that's a lot of damselflies' and wondered if it was possible to make an estimate of their numbers. Looking through the binoculars I estimated that the damselflies were about 1 metre apart and so there was one per square metre. I guessed that the area of the lake that I could cover was 20% of the total. I have checked with the Castle Howard Estate that the area of the lake is 66 acres which is 267 102 square metres. Thus the area of the lake that I was looking at



*Common Blue Damselfly  
Immature Blue Form Female*



*Common Blue Damselfly  
Immature Drab Form Female*

was 53 420 square metres and hence there were 53 420 damselflies! Bearing in mind the limited accuracy of the input information, let's just say around 50 000. I think the most unreliable piece of data used in my estimate is the damselfly density, so supposing that they were 2 metres apart in both directions and hence one per 4 square metres I would have overestimated by a factor of four. However, this still gives about 13000 damselflies. Of course this cannot be considered in any way a scientific study but even this rough estimate gives an impressive number of insects.



*Common Blue Damselfly  
Drab Form Female*



*Castle Howard: The Great Lake*

## Red-veined Darters at Spurn 2014

Paul Ashton

With news out that some migratory dragonflies had been observed at Spurn, I decided to head over there for a long overdue visit. The target species was Red-veined Darter *Sympetrum fonscolombii*, a species that has been very thin on the ground since 2009, with only single records in 2012 and 2013. The location to find these scarce visitors at Spurn was on Cluble's Scrape, a series of three small shallow ponds, one of which had totally dried out on this visit. After a couple of circuits I finally found my first male, which then briefly chased a female away across the pond. Eventually at least three males were found, all with their own favoured territories. This site has always proved a good location to photograph Emperor Dragonfly *Anax imperator*, our largest species in terms of wing span, and so it proved to be again, with two males settling, allowing close approach, and a series of great shots. There was plenty of activity from the Black-tailed Skimmers *Orthetrum cancellatum*, with several mating pairs, and ovipositing females evident. In addition to these species a few Four-spotted Chaser *Libellula quadrimaculata*, Emerald Damselfly *Lestes sponsa*, Common Blue Damselfly *Enallagma cyathigerum* and Blue-tailed Damselfly *Ischnura elegans* were present.



Red-veined Darter



Cluble's Scrape



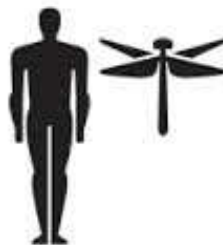
Emperor Dragonfly



## And we think Emperors are big .....

Chris Bull

Evolution is one of my hobbies so when I did some research on the origins of Odonata last summer I was surprised to find that dragonflies are one of the oldest insect groups whose fossils go back to the early Permian period 280 mya. Most fossil dragonflies were of similar size to those found today but one species (*Meganeuropsis permiana*) had a 71cm wingspan making it amongst the largest insects that ever lived. Nicknamed the “Griffinfly” (“monster fly”) its huge size was a consequence of much higher oxygen levels, than we have today, making it simpler for the vital gas to diffuse along the airways.



*Meganeuropsis permiana* (Griffinfly)

These huge insects were amongst just 10% of the life on earth to survive the greatest extinction event ever at the end of the Permian period 250mya, much greater than the better known dinosaur extinction event only 65 mya which they also survived. Why they survived we don't know but paleontologists think their success could have been due to their diversity of niches across a wide range of environments, having an aquatic larval stage, as well as their unique eyesight and maneuverability, all of which contribute to their success today. Makes me wonder if there is ever another extinction event, who will be the survivors next time!

### Request from the Editor

This magazine is produced for the members, containing articles by the members. Please consider writing just one article during the year for inclusion in the next edition. If the subject interests you, it will be of interest to other members of the group. Many thanks to all those who have contributed to this issue. Hope you've enjoyed the read. Paul Ashton.

## VC61 South-east Yorkshire Report

Paul Ashton

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

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

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

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



*Red-veined Darter*



## VC62 & 65 North-west & North-east Yorkshire Report

*Keith Gittens*

With a busy events programme and fingers crossed it was hoped 2014 would be a good year and it was not to disappoint. The year started early with a first record for Large red Damselfly *Pyrhosoma nymphula* on the 18<sup>th</sup> April from Strensall Common.

There were some good days for getting out recording in May and June and these brought the surprise find of Red-eyed Damselfly *Erythromma najas* at not one but two sites in VC62. This is a new species for the VC, pushing its national range some 20 miles further north. Both sites are regularly recorded but the number of individuals indicates the species had bred previously. The most northerly site is the old fishponds owned by Ampleforth College at Gilling Woods north of York.

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

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

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



*Red-eyed Damselfly*

## VC63 South-west Yorkshire Report

Alistair McLean

2014 has proved to be another interesting and productive year for recording in our area. As always, I didn't get out half as often as I'd have liked, but I've been fortunate to take in many thousands of records from other Odonateers (is that a word) in the area.

The Hairy Dragonfly *Brachytron pratense* has eluded us once again this year, and really doesn't appear to have made it any further South than Potteric Carr. An interesting record sent in by an observer was a sighting of the Banded Demoiselle *Calopteryx splendens* at Hull Mill Dam (SD989086), which is quite high altitude for a normally lowland species. This quite beefy damsel has been gradually moving back into the area after an apparently long absence - it's beginning to turn up in some unusual places!

I'm very grateful to David Goddard, whose expertise in identifying exuvia and larvae at Rabbit Ings prevented a very wet day from being a total wash out! The next few months should hopefully see the completion of the Dragonflies of the Sorby Area - not a Yorkshire dragonfly publication, but it'll hopefully still be an interesting read. Watch this space.

### Vice-county recorders

**VC61** - Paul Ashton   vc61@yorkshiredragonflies.org.uk   01430 803005

**VC62** - Keith Gittens   vc62@yorkshiredragonflies.org.uk   01347 868606

**VC63** - Alistair McLean   vc63@yorkshiredragonflies.org.uk   0114 2782648

**VC64** - Tom Hubball   vc64@yorkshiredragonflies.org.uk   01535 678334

**VC65** - Keith Gittens   vc65@yorkshiredragonflies.org.uk   01347 868606

Please submit your records to the relevant recorder as soon as possible. Ideally all records for the current years should reach the recorders by the end of December for onward transfer to the British Dragonfly Society.

We recommend using iRecord, an on-line recording application developed by the Biological Records Centre. [www.brc.ac.uk/irecord/](http://www.brc.ac.uk/irecord/)

## VC64 Mid-west Yorkshire Report

Tom Hubball

Judging by the amount of records I have received so far, 2014 appears to have been a poor year for dragonflies in VC64, whether this is due to the weather, or recorder effort following the push we've had for the past few years to get records for the atlas, or a combination of both, I'm not sure. Although all of the usual species have been recorded, numbers are down, however, this is hardly surprising given the cold winters we've had in the past couple of years.

*Cordulegaster boltonii* is holding its own in its strongholds around Timble and Cross of Greet, but I'm sure that there are undiscovered populations on the moors surrounding the limestone that dominates the central belt of VC64, so if anyone is walking in this type of habitat, please do keep a watchful eye out for them on the becks that cut across the landscape. I would also like to make a plea to anyone visiting the south-east corner of VC64, particularly the area between Leeds, Cawood, Selby and Goole, to send any dragonfly records to me, as I rarely get the chance to venture over that way at the moment. I also receive few records from garden ponds, so if you know anyone with one in your neighbourhood, please do enquire if they have seen any dragonflies around it and let me know.

Once again, I and other members of the Yorkshire Branch of the BDS will be attending the Royal Entomological Society Insect Festival at York Museum Gardens on Sunday 5th July. There will be all sorts of things to see and do, especially for children, so please do come along to enjoy the fun. If you fancy helping out, even for half an hour or so, you would be most welcome.

Finally, thanks must go to all individuals and organisations that have provide me with the bulk of the records, especially David Alred, the Recorder for Wharfedale Naturalists, Steve Worwood, the Recorder for Harrogate and District Naturalists Society and Peter Mill at Rodley Nature Reserve. Without your dedication, assistance and willingness to share your members' records, our knowledge of dragonfly distribution would be in a far worse position. Thank you.



<http://www.brc.ac.uk/irecord>

### On-line Recording

The British Dragonfly Society is now using the Biological Records Centre iRecord as the standard recording tool for collating records. All records will now go directly to the Dragonfly Recording Network via this method. Vice-county Recorders should all shortly be signed up to validate your records using iRecord. Why not sign up today and be ready for the new recording season.

## Broomfleet Washlands

Paul Ashton



*Broomfleet Washlands*



*Variable Damselfly*

Broomfleet Washlands, along with Oxmardyke Marr on the opposite side of Market Weighton Canal, are part of the managed flood relief for the canal. They are designed to hold back water when it is prevented from entering the Humber at high tide. This stretch of the canal carries water from the River Foulness catchment area which enters the canal north of Newport. The Broomfleet area is an important site in Yorkshire as a whole due to the presence of the near

threatened Variable Damselfly *Coenagrion pulchellum*. Broomfleet Washlands is the only publicly accessible site in Yorkshire where Variable Damselfly *C. pulchellum* can be observed, all other water bodies in this area being strictly private. The Environment Agency

have kindly allowed observers to visit this site, under the proviso that they respect the other uses for this area, mainly the grazing of cattle and sheep. In addition, this is also a good place to observe Hairy Dragonfly *Brachytron pratense*.

### Access

Leave the M62 at the North Cave junction. Take the B1230 to Newport. Before reaching Newport take the left turning to Broomfleet along Wallingfen Lane. At



*Variable Damselfly*

the end of the road turn right on to Common Road. Continue straight on, the road eventually turns in to a deeply rutted track which is passable with care, car park can be found before the track rises towards the railway. Alternatively turn left off Common Road on to Carr Lane. At the end of the road turn right on to Main Street. Take the right hand bend and follow the road until reaching the bridge over the Market Weighton Canal, don't cross the bridge, the road is wide enough to safely park. Walk north towards the railway where there is an underpass on to the washlands complex. Note: The site may be used for cattle grazing and could also be in use for shooting.

### Species List

Emerald Damselfly  
Large Red Damselfly  
Red-eyed Damselfly  
Blue-tailed Damselfly  
Azure Damselfly  
Variable Damselfly  
Common Blue Damselfly  
Common Hawker  
Migrant Hawker  
Southern Hawker  
Brown Hawker  
Emperor Dragonfly  
Hairy Dragonfly  
Four-spotted Chaser  
Broad-bodied Chaser  
Black-tailed Skimmer  
Common Darter  
Ruddy Darter  
Black Darter

*Lestes sponsa*  
*Pyrrhosoma nymphula*  
*Erythromma najas*  
*Ischnura elegans*  
*Coenagrion puella*  
*Coenagrion pulchellum*  
*Enallagma cyathigerum*  
*Aeshna juncea*  
*Aeshna mixta*  
*Aeshna cyanea*  
*Aeshna grandis*  
*Anax imperator*  
*Brachytron pratense*  
*Libellula quadrimaculata*  
*Libellula depressa*  
*Orthetrum cancellatum*  
*Sympetrum striolatum*  
*Sympetrum sanguineum*  
*Sympetrum danae*



## Bookcase Essentials

Paul Ashton



The long awaited new **Atlas of Dragonflies in Britain and Ireland** was published on 28th May 2014. This full colour, hardback book (280 pages) from the British Dragonfly Society (BDS) maps the distribution of all 56 species of damselfly and dragonfly in Britain and Ireland. It can be purchased for £32 + p & p from the BDS website. [www.british-dragonflies.org.uk](http://www.british-dragonflies.org.uk)

Edited by Steve Cham, Brian Nelson, Steve Prentice, Adrian Parr, Dave Smallshire and Pam Taylor, this full colour book represents five years' work by our volunteers and partner organisations and summarises the distribution of over a million dragonfly records.

It includes:

Species accounts, including maps, for all 56 resident and immigrant species recorded in Britain and Ireland;

Four pages devoted to each resident species;

Sections on habitats, conservation, distribution changes and phenology;

High quality colour photographs of all species and their habitats.

### Emperor Dragonfly

*Anax imperator*



**Distribution**

Emperor Dragonfly is widely distributed from western Europe to central Asia and India. The species also occurs throughout the Middle East, North Africa and tropical Africa. It is widespread throughout the whole of central Europe and the Mediterranean region. In recent decades it has expanded its range northwards into southern Sweden, Latvia and Estonia. In the Atlantic, Emperor Dragonfly can be found on the Azores, Canary Islands, Cape Verde and Madeira, and in the western Indian Ocean it occurs on Madagascar and the Mascarenes.

At the time of the previous atlas, Emperor Dragonfly was largely confined to the low-lying areas of southern England and southern Wales, where it was widespread and not uncommon. Since then it has shown a marked expansion to the west and north into North Wales, north-west England and central Scotland. It is still remains unrecorded from some upland areas of Dartmoor and Exmoor, and the chalk downland areas of Dorsetshire and Wiltshire. From 2000 onwards it has colonised Ireland, appearing in Co. Wexford in the south-west around 2000 and then showing a rapid spread west and north. It also appeared in Northern Ireland in 2010 and on the Isle of Man in 2011. This dramatic expansion in the Emperor Dragonfly's distribution may be

### Blue Emperor

*Anax junix*



**Distribution**

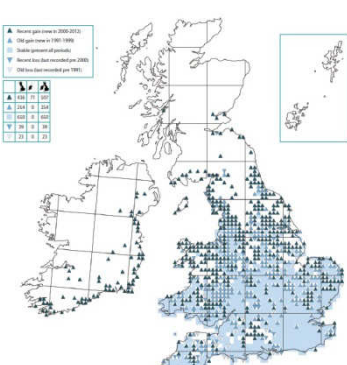
Emperor Dragonfly is a large and robust dragonfly. Males have a black vest dorsal line, with a black vest dorsal line, and an apple green thorax. In females, the vest dorsal line is broader than on males and the abdomen is all green. Adults have a synchronous emergence, typically in early June. Immature stages are unaccompanied into various submerged and floating plants. Larvae usually take two years to complete development but in exceptional circumstances, with abundant food supply, can take only one year. Immature stages are unaccompanied into various submerged and floating plants. Larvae usually take two years to complete development but in exceptional circumstances, with abundant food supply, can take only one year. Immature stages are unaccompanied into various submerged and floating plants. Larvae usually take two years to complete development but in exceptional circumstances, with abundant food supply, can take only one year.

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### Emperor Dragonfly

*Anax imperator*

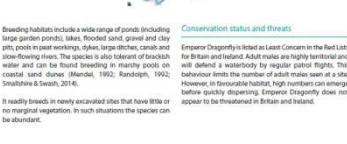


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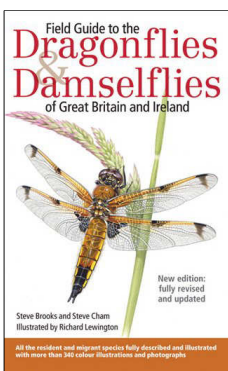
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*Britain's Dragonflies* is the only comprehensive photographic field guide to the damselflies and dragonflies of Britain and Ireland. Written by two of Britain's foremost experts, this fully revised and updated edition features hundreds of stunning images and identification charts covering all 56 resident, migrant and former breeding species, and seven potential vagrants. The book focuses on identification, both of adults and larvae, highlighting the key features. Detailed species profiles provide concise information on identification, distribution, flight periods, behaviour, habitat, status and conservation. Other sections cover biology; how to watch, photograph, record and monitor Dragonflies; conservation status and legislation; and introduced exotic species.



All Great Britain and Ireland's resident and migrant dragonfly and damselfly species fully described and illustrated with more than 280 colour works by Richard Lewington, one of Europe's foremost wildlife illustrators. Fully updated, this 2014 edition features full descriptions, ecological notes and distribution maps, as well as a general introduction and regional guide to the best places to watch dragonflies. The 2002 edition was shortlisted for the BP Natural World Book Prize.



This book by Steve Cham for the identification of larvae and exuvia of British Dragonflies and Damselflies now combines the previously separate editions for Dragonflies and Damselflies.

A new approach to the identification of these important life stages without the need for keys. The book contains colour photographs of all the key distinguishing features of both Dragonflies and Damselflies.

All the above books can be purchased through the British Dragonfly Society's Shop.  
[www.british-dragonflies.org.uk/content/bds-shop](http://www.british-dragonflies.org.uk/content/bds-shop)

## Guide to chalk rivers of England

*Richard Shillaker*

Chalk rivers and streams are globally a rare habitat. I find it hard to believe that there are reported to be only about 200 chalk rivers (and streams?) in the world. Most of them are in England, particularly in the South. They are of course also associated with the chalk of the Wolds of East Yorkshire and Lincolnshire. The characteristic clarity of the water is a result of it being filtered as it passes through the chalk before emerging from springs (interestingly, at a constant temperature throughout the year).

The origin of chalk rivers is nicely described in an article from the Guardian last year:

“They are an irreplaceable relic of our past, created as the ice sheets retreated from England 10,000 years ago. The gushing flows from melting ice brought huge quantities of the distinctive gravels that still occupy their beds and determine their ecology. Never since have these rivers had sufficient energy to significantly alter their location, shape or size.”

The article also includes the following quotation from John Betjeman:

“When trout waved lazy in the clear chalk streams, Glory was in me ...”

A guide to the chalk rivers of England has recently published as a laminated fold-out chart (price £3) by The Field Studies Council. It has colour illustrations of a range of invertebrates, vertebrates and plants (submerged and marginal), as well as providing background information on the features of chalk rivers. The numerous threats to chalk rivers, including groundwater abstraction and sediment run-off from agricultural land, are also described.

The guide was produced as part of a Living Rivers initiative by the Herts and Middlesex Wildlife Trust, aided by a donation from a friend of mine.

The only ‘dragonfly’ to appear on the chart is the Southern Damselfly. This is a rare species in Britain, with one of its locations being chalk streams in Hampshire. It is thought that the constant water temperature of the streams (rarely falling below 10 degrees C even in winter) makes them a suitable habitat for a species present at the extreme North Western limit of its European range.

I have seen hawkers flying over the chalk stream that flows down Brantingham Dale but chiefly in an area that resembles a wooded glade. Paul Ashton however tells me that, in East Yorkshire, Banded Demoiselles can be found on some chalk streams that are not flowing too fast, where sediment has started to settle.

## Recorders' Day 2015 Saturday 14th March 2015

Attenborough Nature Reserve, Nottingham NG9 6DY.

09:45 – **Registration**; tea and coffee will be available

Approximately 35 people attended, mainly VCRs but also speakers from other organisations.

10:15 – **Welcome**, house-keeping and appointment of a minutes taker (Brian Walker)

10:25 – Steve Prentice – **the role of the VCR / online recording etc** - Steve confirmed that he is retiring at the end of May. All records will be kept in the Biological Records Centre Indicia Data Warehouse. Unverified records will be sent to VCRs to verify in iRecord. Emails will be sent to VCRs once they have signed up to iRecord notifying them that there are unverified records which need to be looked at and either Accepted, Rejected or Referred. A Manual will be provided to aid VCRs to help them get to grips with iRecord. Henry Curry is going to become the DRN Administrator/BRC Liaison.

10:50 – Brian Walker – **BDS recording and Priority Sites** (*DragonflyWatch*) - Brian explained that Priority Sites, formally known as Key Sites are identified as either holding a viable population of rare species or having a high diversity of species. Of the UK species classed as 'Near Threatened' only Variable Damselfly is recorded in Yorkshire although in the context of Yorkshire species, Red-eyed Damselfly, Small Red-eyed Damselfly, Hairy Dragonfly and Golden-ringed Dragonfly would also count as they are rare resident species in Yorkshire. The BDS wants VCRs to encourage recorders to develop their identification skills, particularly in larvae/exuviae and if they regularly send in records for a site, try to get them to adopt the site and setup a transect or record full site lists each time they visit.

11:20 – Pat Batty – **Beaver project** – focusing on standardised methodology  
Pat explained that she had been assisting with monitoring the dragonflies at Knapdale Lochs in conjunction with the Beaver project to ascertain what impact the beaver population had on various fauna, flora, forestry and income in the project area. Once all the data has been collected, the Scottish parliament will decide whether the beavers can remain or not. This decision is highly likely to influence how beaver populations are treated in the rest of the UK. Pat described the format of the monitoring she undertook and explained how it affected two particular species in the area; Beautiful Demoiselle and Hairy Dragonfly. The Beautiful Demoiselle had hardly been affected as the beavers had stayed away from the rivers/streams in the area but their grazing on two types of rush which the Hairy Dragonfly needs for cover and emergence, coupled with increased water depth has had a significant effect in reducing sightings of this species.

11:40 – Richard Chadd (EA) – **Invertebrate sampling / data use** - Richard went into great detail of the sampling methodology that is being used to determine water quality and suitability for invertebrates. He commented that the new data has helped to change how water use is regulated and instead of restricting extraction by companies when the results show deterioration in quality, the companies can now still extract the same volumes but pay for habitat restoration, particularly in the reinstatement of meanders and other flow calming measures, which has seen a beneficial increase in biodiversity.

12:10 – Adrian Parr – **migrants / recent expansions** - Adrian focused on what changes he had seen over a twenty year period. Over this time there had been a 7-11 species increase in the UK Odonata fauna (7 if you count new species only or 11 if you include species which have recolonised the UK after many years of not being recorded): an increase of approximately 20%! As well as mentioning how many southern UK species were faring, he remarked that Red-veined Darter had appeared to have a second generation at Spurn but mature individuals had never been recorded...do they fly south shortly after emergence in the autumn? Adrian therefore asked for any autumn sightings of mature specimens as well as for larval records. Even though Migrant Hawker are now a resident species and as such rarely get noticed as migrants there are records of remarkable numbers, 700+ seen at Dunwich in Suffolk for instance, that indicate that migration is still occurring from the Continent. Small Red-eyed Damselfly appears to have settled down in its range expansion except in Yorkshire where it is still northward bound. Why here and no-where else? Willow Emerald is continuing to spread very slowly. Dainty Damselfly had a very poor year with no adults recorded from their known sites. Adrian then proposed which species were likely to be seen in the UK for the first time in the near future, chief of which was Southern Darter which, after many stable years, had seen a massive range increase in Germany, Netherlands and Belgium in 2013 and 2014. Could they have already made it across the Channel but not been recorded?

12:10 – Claire Install – **record App** - Claire provided a brief overview of the dragonfly record phone app but this is very much a work in progress and several things need to be changed or improved before it can be rolled out. Before lunch both Steve Prentice and Pam Taylor were presented with Richard Lewington prints for their service to the Society.

12:50 – Lunch / networking - Golden-ringed Dragonfly Golden Ale was also on sale, in bottles, and a fine brew it was.

14:00 – Andy Holt - **larval records / videoing and photographing larvae** - Andy started by showing some photos he had taken both of larvae in their 'natural' environment (in a tank) and using the High Key technique; isolating the subject against a white background. The High Key photos were truly stunning, especially as they had been taken without photo stacking. After explaining his setup, which included diffuse flash and Canon MP-E65 lens, he also recommended over-exposing by 2 stops on TTL flash to get the best results. As well as using a DSLR, he also uses a Raynox DCR 250 attached to either a Panasonix Lumix camera or Sony Handycam and he finished with a short film of a Southern Hawker larva moulting which was shot using just the Sony Handycam with Raynox DCR 250 fitted to it. Truly stunning. This and another one of Andy's films, 'Dragonfly', can be seen here <http://www.wildlifelens.co.uk> along with his Flickr photo album.

14:30 – Andy Musgrove (BTO) – **BTO BirdTrack** - Andy gave a brief overview of the BTO's BirdTrack software, which now has dragonfly recording added. They are now working on a global, instead of just UK, version which in time will be rolled out so wherever you are in the world, you can record using just one program. However much development work is needed before it will become available.

15:00 – Adrian Bicker – **Cyril Diver project** - Adrian provided a brief overview of the project down in Studland, Dorset, focusing on Cyril's dragonfly data from the 1930's and how it compared to today. Adrian also commented that it was now possible to undertake site based recording on Living Record and was hoping to promote it to various groups, such as the Wildlife Trusts and local government organisations/councils who could use it to monitor multiple sites in their control.

15:30 – Dragonfly **Question Time** (Expert panel comprising of Pat Batty, Adrian Parr, Dave Goddard and David Kitching)

**How long does it take an emergent dragonfly to change breathing from gills to using their spiracles?** - It was suggested that it is more than likely that they can do both prior to emergence as it had been recorded that not only do they appear to gulp air prior to emergence but they can also exist in dried out water-bodies before being submerged again. Pat Batty remarked that she had known one that had survived for two weeks like this.

However, once they change to solely breathing through their spiracles, they cannot go back to breathing using their gills and will drown if they accidentally re-enter the water.

**What technology in the future will help record dragonflies?** - At the moment it appears that E-DNA will be able to do this, although it is a very long way off. E-DNA is being used for Great Crested Newt recording but this is mainly due to the 'slime' of the newt being able to be picked up in the sample. How this would work for hard bodied invertebrates such as dragonfly larvae remains to be seen.

**Why do dragonflies migrate?** - They migrate, like other insects, birds and mammals, to take advantage of available resources. However they all migrate to some stage, even if it's only a few metres/kilometres to spread their genes.

**There are records of migrants coming in from the sea. Are recorders on the Continent notifying us when they see dragonflies flying out to sea?** - Adrian Parr is aware of records submitted confirming this but they are such few in number that it is virtually impossible to tie them up with observations of them arriving in the UK.

**It was mentioned earlier that dragonflies have been caught in Heligoland traps. When released, which way do they go?** - South. It would be a useful citizen science project to capture and release dragonflies to prove this.

**How do dragonflies know which way is South?** - Probably in the same way as birds using wavelengths of light. Given the eyesight of dragonflies, they can probably detect the polarisation of light too.

**Is there proof that there are changes in emergence time. If so, what is causing it?** - It does appear that some species may be becoming bivoltine (two generations per year). This is due to water temperature.

16:00 – **Summing up** - Claire thanked the speakers and everyone for attending.

16:15 – Optional **walk around the reserve** led by Dave Goddard - Several attendees had a short walk around the reserve but the majority made their way home after an informative meeting.

*Tom Hubball*

## Species list for Yorkshire

Latin Name	Common Name	Status in Yorkshire
<i>Calopteryx virgo</i>	Beautiful Demoiselle	Restricted Range
<i>Calopteryx splendens</i>	Banded Demoiselle	Widespread
<i>Lestes sponsa</i>	Emerald Damselfly	Widespread
<i>Lestes dryas</i>	Scarce Emerald Damselfly	Ex-resident
<i>Pyrrhosoma nymphula</i>	Large Red Damselfly	Widespread
<i>Erythromma najas</i>	Red-eyed Damselfly	Restricted Range
<i>Erythromma viridulum</i>	Small Red-eyed Damselfly	Restricted Range
<i>Coenagrion puella</i>	Azure Damselfly	Widespread
<i>Enallagma cyathigerum</i>	Common Blue Damselfly	Widespread
<i>Ischnura elegans</i>	Blue-tailed Damselfly	Widespread
<i>Ceriatrigon tenellum</i>	Small Red Damselfly	Vagrant
<i>Coenagrion pulchellum</i>	Variable Damselfly	Restricted Range
<i>Aeshna juncea</i>	Common Hawker	Widespread
<i>Aeshna mixta</i>	Migrant Hawker	Widespread
<i>Aeshna cyanea</i>	Southern Hawker	Widespread
<i>Aeshna grandis</i>	Brown Hawker	Widespread
<i>Aeshna isosceles</i>	Norfolk Hawker	Vagrant
<i>Anax imperator</i>	Emperor Dragonfly	Widespread
<i>Anax parthenope</i>	Lesser Emperor	Migrant
<i>Hemianax ephippiger</i>	Vagrant Emperor	Vagrant
<i>Brachytron pratense</i>	Hairy Dragonfly	Restricted Range
<i>Cordulegaster boltonii</i>	Golden-ringed Dragonfly	Restricted Range
<i>Cordulia aenea</i>	Downy Emerald	Vagrant
<i>Libellula quadrimaculata</i>	Four-spotted Chaser	Widespread
<i>Libellula fulva</i>	Scarce Chaser	Ex-resident
<i>Libellula depressa</i>	Broad-bodied Chaser	Widespread
<i>Orthetrum cancellatum</i>	Black-tailed Skimmer	Widespread
<i>Orthetrum coerulescens</i>	Keeled Skimmer	Restricted Range
<i>Sympetrum striolatum</i>	Common Darter	Widespread
<i>Sympetrum fonscolombii</i>	Red-veined Darter	Migrant
<i>Sympetrum flaveolum</i>	Yellow-winged Darter	Migrant
<i>Sympetrum sanguineum</i>	Ruddy Darter	Widespread
<i>Sympetrum danae</i>	Black Darter	Widespread
<i>Sympetrum vulgatum</i>	Vagrant Darter	Vagrant
<i>Leucorrhinia dubia</i>	White-faced Darter	Ex-resident