



CARDIFF NATURALISTS' SOCIETY

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Cover: Fungi photographed in Poland by Linda Morris (an image from her Members' Evening presentation on 15 Jan 2018).

Biosciences Prize 2018

We congratulate Zoe Watts for winning this year's Biosciences Prize, awarded in memory of former CNS members Prof Ursula Henriques and Dr Mary Gillham. Mike Dean presented Zoe with her award at the meeting on Monday 12 March (see photo). Zoe gave a presentation of her award-winning fieldwork project, entitled 'The Secret Cleaners of the Reef', at the meeting. She writes about her research on pages 9-11.



Outdoor Meetings 2018

Taf Fechan Reserve

Saturday 12th May

10am to 1pm. A joint field trip with the Wildlife Trust.

Taf Fechan is one of the Wildlife Trust's most beautiful reserves. It is located just north of Merthyr Tydfil and is a broadleaved woodland reserve running along a limestone river valley. A great place to see riverine birds such as dipper and grey wagtail, as well as many woodland species. The Wildlife Trust's Valleys Reserve Officer, **Lorna Baggett**, will be showing us around.

Meet at 10 am in the Lon Maes Du layby on Vaynor Road (<http://goo.gl/maps/XRS1L>). The visit will finish at 1pm.

Wenvoe and Goldsland

Thursday 17th May

10.30am

Leader - **Bruce McDonald**

This wildlife walk is also part of the Vale of Glamorgan Walking Festival. It starts outside St Mary's Church in the middle of Wenvoe (CF5 6AN) and heads towards Goldsland Farm via some orchards.

Goldsland has possibly the only surviving constructed watercress beds in Wales, a newly planted orchard, sunken lane, lichen trail and bee hotel. From there we head back via St Lythans burial chamber and some more orchards. Distance 5 to 6 miles with several stiles, finishing by 3.30pm. Bring a packed lunch.

Insole Court, Cardiff

Saturday 9th June

11am

As part of the Insole Court Heritage Day, Cardiff Naturalists' Society have arranged for **Tony Titchen** to lead a walk around the grounds looking at the many interesting specimen trees to be found there. Meet at 11am outside the Visitors Centre. Duration around 1 hour 30 minutes.

Parking, cafe and toilets are available at Insole Court, but bear in mind that there will be many other visitors there enjoying the other events on offer on that day. Insole Court is in Llandaff, on Fairwater Road, Cardiff CF5 2LN. For more information see: <https://www.insolecourt.org/>

Pentwyn Farm and Wyeswood Common

Saturday 30th June

10am to 1pm. A joint field trip with the Wildlife Trust.

We will be visiting two of the Gwent Wildlife Trust's flagship reserves and will be shown around by **Tim Green**, their Senior Farm and Wildlife Development Officer. The site includes one of the largest remaining areas of flower-rich grassland in Gwent and provides an opportunity to see hay meadows as they would have looked in the past, before the advent of intensive farming.

Meet at Pentwyn Farm (SO 523 094, NP25 4SE) at 10am. There is a nice café in the visitor centre and we will probably break for lunch about 1pm.

Dare Valley Country Park

Saturday 14th July

10am to 3pm. A joint trip with the Wildlife Trust.

A trip to see old Colliery Spoil Tips, which have recently begun to be appreciated as great habitats for a wide range of invertebrates and other wildlife. This is mainly due to the free-draining nature of the spoil substrate and the dry grassland and heathland that develops there.

Liam Olds has set up the 'Colliery Spoil Biodiversity Initiative' and will be leading this visit to Dare Valley. We hope to see many insect species, including bees and butterflies, such as grayling and small pearl bordered fritillary.

Meet at the car park at Dare Valley Country Park (SN 98307 02702, CF44 7PT) at 10am.

Lichen Trail, Wenvoe

Date TBC

Details will be on our online programme when confirmed.

Please look online for all the latest information and additions to the CNS Meetings Programme:

<http://cardiffnaturalists.blogspot.co.uk/p/programme.html>

Deadline for next newsletter: 17 August 2018

All the Presidents Men and Women

Andy Kendall

No this is not a reference to the 1976 film about the Watergate Scandal starring Robert Redford and Dustin Hoffman, but it does include a few scandals, a few heroes and gives some thoughtful insight into the history of the Society and the changing history of the way people view science, culture and wildlife over the ages.

Back in November 2017, I commented that as part of our 150th Celebrations I was putting information about each of our presidents onto our website. Now, all our Presidents Pages are live on the website, and the Society History section is substantially complete. So what does all of this tell us? One thing is that we have a lot of information available about some fascinating people . It has been a real pleasure to explore all of this and share it with the people of Cardiff, and through the Internet to the world.

Interestingly in these days of social media, it is the earliest presidents who were the easiest to research. The details of the daily lives of these forward-thinking people were documented on an almost daily basis in the many local newspapers, covering what was at that time a relatively small, but fast growing town.

The research was massively helped by the wonderful National Library of Wales Newspapers on-line site. Also, the fact that we as a society made available our Reports and Transactions to be scanned into their Welsh Journals site. The Glamorgan Archives have also been wonderful and a number of the pictures have come from materials deposited there.

Things got harder to research after about the 1950s. Whilst the society was thriving at the time, the level of coverage in local newspapers started to drop. By the 1970s things seem to get very hard, but in the 2000s information is getting easier to find again in the Internet age.

Other institutions have been very helpful as I have come across items that relate to things in their collections, and I would like to list some other information sources and institutions that have been particularly useful or helpful at this time: National Museum of Wales; Cardiff University; Guernsey Museum; Dr Mary Gillham Archive Project; Vachell Family Archives; www.cardiffparks.org.uk

We have left it up to living people as to whether they want a page in the system and some have not yet decided or got around to providing a set of information that they are happy with. There are also a few people who I have struggled to find any information about (mostly in that information blackout age). So I may well come back and update some of those pages.

Of course, in so much work there may be mistakes I have made or information or links between people I have not found. If you spot anything please email me (info@cardiffnaturalists.org.uk) and I will happily sort things out.

You can find information about our past presidents at:
<http://cardiffnaturalists.org.uk/htmlfiles/150th-08.htm>



Presidents Eleanor Vachell, Franklen G.Adams & Henry Heywood.

The Secret Cleaners of the Reef

Zoe Watts

In June 2017, a group of Cardiff University students, lecturers, and researchers flew to the Caribbean Island of Tobago. Our destination was Charlotteville, a small fishing village in the Man-O-War Bay, northeast Tobago, which has been largely untouched by commercialisation and the tourism industry.

It was early nights all-round after the long journey, so it wasn't until the next day that we were able to take in the breath-taking beauty of the village. There were no large supermarkets or hotels to be seen. We stayed in the Man-O-War Bay Cottages on the sea front. The cottages were rustic and certainly not what we were used to, but they provided a place to crash at the end of each exhausting day and that was all we needed!

We rose early every morning, with a full agenda planned for the day. The first week was spent getting to know the reefs at Pirate's Bay, Turpin's Beach, and Booby Island. Each reef had different structural characteristics and the fish species present varied. The reef at Pirate's bay was much deeper than the other reefs and was home to some adult French Angelfish (*Pomacanthus paru*) (image below). Of all the fish I saw in Tobago, the French Angelfish was my favourite as it was so beautiful and majestic!



Having spent the first week getting to know the reefs, and undertaking abundance surveys of the different species on each reef, it was time to come up with our own projects.

During the trip, we had evening discussions with the lecturers and other staff about various aspects of marine ecology. One such talk was about cleaner-client fish mutualisms. Mutualisms are interactions between individuals of different species in which both individuals benefit. During the cleaning mutualism, the cleaner fish gains food by removing harmful ectoparasites from client fish. This talk gave me inspiration for my project; I had read that my favourite fish, the French Angelfish, was a cleaner in its juvenile stage and so I decided to compare the cleaning activity of this species with that of the Sharknose Goby (*Elacatinus evelynae*).

Sharknose gobies are obligate cleaners and must clean other fish as a food source for survival. In contrast, juvenile French Angelfish are facultative cleaners, meaning that they do not depend upon cleaning as their sole food source.

I decided to compare the number of cleaning opportunities each species received and their time spent cleaning. As Sharknose gobies depend on cleaning as a food source, I hypothesised that they would spend more time cleaning than juvenile French Angelfish.

Cleaner fish live on bits of coral, named cleaning stations, and client fish seek out these stations when they want to be cleaned. Therefore, I scoured the reef by Booby Island and identified several Sharknose Goby and juvenile French Angelfish cleaning stations. I observed each of these stations for 10-minute intervals, recording the species of fish that came within 20 cm of the cleaner (termed a 'cleaning opportunity') and the species that were cleaned. For each interaction, I recorded the time that it occurred and for how long.

Analysis of my raw data identified that there was no difference in the number of cleaning opportunities received by Sharknose gobies and juvenile French Angelfish. However, juvenile French Angelfish spent significantly more time in the 10-minute period cleaning than Sharknose gobies did.

This finding led me to reject my hypothesis that the French Angelfish would spend less time cleaning, and raises the question as to why, as a facultative cleaner, the Angelfish spent such a large proportion of its time cleaning. Further study of these cleaners is required to identify the reason behind my finding. It is possible that there was limited food available to the juvenile French Angelfish on Booby reef and so it had to spend more time cleaning to gain enough food for survival. On the other hand, it may be that cleaning is more important to the juveniles than the limited amount of literature has so far indicated.

Research on cleaning mutualisms is important to further our understanding of the interactions that occur on coral reefs. Cleaner fish are important to maintaining a healthy reef (Limbaugh, 1961) and so understanding these interactions is vital to developing strategies for conservation of the reefs and their inhabitants. This is particularly crucial at this time, when the survival of reefs is hanging in the balance.

I would like to thank the Cardiff Naturalists' Society for awarding me the Bioscience prize, it was an honour to receive it!

Reference:

Limbaugh, C. (1961). Cleaning symbiosis. *Scientific American* 205: 42-49.

Weather Report for North Cardiff 2017

from a friend of the Society

Note: The attached weather summary for North Cardiff has been compiled from figures recorded in Thornhill, a location with observations going back to 1986.

Summary for 2017.

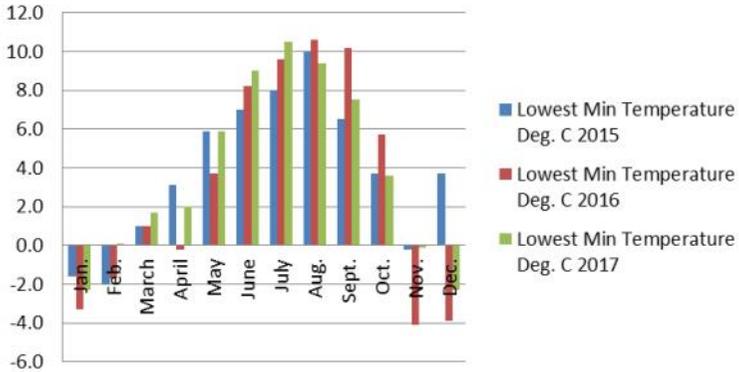
2017 was fairly benign year weather wise in North Cardiff. However, this is true only because Cardiff narrowly avoided what might have been a significant snow event on December 9th and 10th when 28.0 mm of rain in 24 hours turned to snow as it moved northwards into Wales. Noteworthy accumulations of snow occurred north of Caerphilly Mountain with Sennybridge receiving 30 cm or 12 inches. The rainfall total on that day represented the wettest day in what was a relatively dry year. The annual total was 1,228.0 mm (48.3 inches) some 220 below the long term average, helped by below average rainfall totals in January (driest since 2010), April (only 27 mm) and October (92.0 mm), the latter months following recent trends.

No severe frosts were noted during the year, the lowest temperature recorded was minus 2.3°C (27.9°F) on January 5th and December 12th and there were only 8 air frosts.

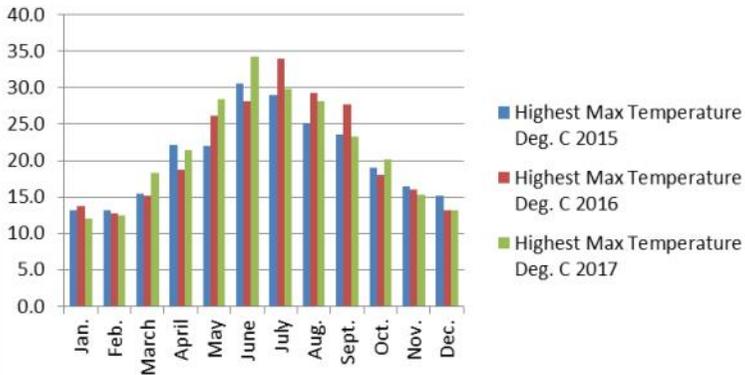
The highest temperature recorded was 34.3°C (93.7°F) in a particularly hot spell in June.

N.B. Whilst the rainfall figures shown above may be taken as representative of the Thornhill area, the non-Met Office standard of the exposure of the thermometers and the recent refurbishment of the screen means that the temperature data is representative of the site only and not of the a wider area.

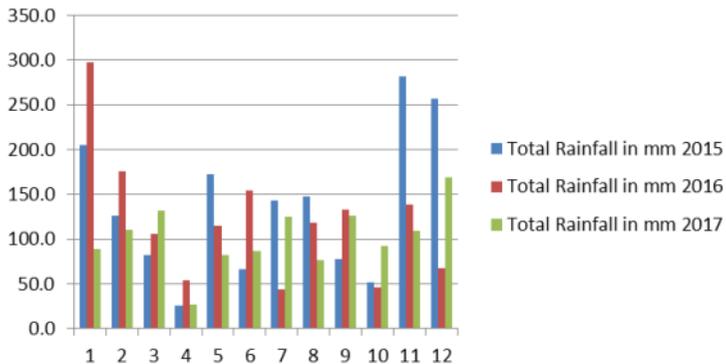
Lowest Min. Temperature



Highest Max. Temperature



Rainfall mm



The Presidential Badge

This was presented to the Society by former President Ivor Jones in 1933. It has been worn by Presidents up to the present day.



Cardiff Birdwatch 2018

Richard Cowie

The Cardiff Birdwatch started at Roath Park this year. We met on the Wild Gardens Road on the north side of the lake. It was a beautiful day - bright and sunny - although very cold with a bitter wind. This year's Birdwatch was a joint meeting of the Cardiff Naturalists and Wildlife Trust and there were 26 people at the start, ably led by Rob and Linda Nottage. Although we didn't see anything too unusual, the light was beautiful, with the winter sun being low in the sky, and we got lovely views of many species, which were all in their smart breeding plumage. We went around the lake in a clockwise direction and amongst the islands at the top end of the lake we got good views of grey heron, cormorants, a little egret, shoveler and teal. These latter two species used to be unusual at Roath Park Lake, but in recent years have become much more regular. Amongst the shrubbery and trees on the islands we also got good views of some passerines such as nuthatch, great tit, blue tit, and a small flock of long-tailed tits. As we proceeded down the lake we picked up more 'open water' species such as tufted duck, pochard, and little grebe, as well as the ubiquitous mute swans, coot, Canada geese, greylag geese and geese of dubious parentage.

When we reached the lighthouse (photo p 18), most people were beginning to feel a bit cold, mainly due to the chilly wind, so it was quite a relief to head into the shelter of the formal gardens. Almost immediately we saw some redwing feeding on ivy berries up in the trees, as well as some of the more common woodland species such as robin, goldcrest, dunnock, wren and blackbird. We also picked up both grey and pied wagtails flying by and calling. When we got back to the lake and the cold wind, our resolve was immediately tested by the café. Most of us stayed firm and carried on up the west side of the lake, but a couple of (sensible?) people crumbled and went off for a hot chocolate in the warm!



Near the Roath Park lighthouse. Photo: Linda Nottage.

There were quite a lot of gulls roosting on the west side of the lake including black headed, herring and lesser-black backed gulls. One of the lesser-black backed gulls was ringed, with a large blue plastic 'darvic' ring and the number AKZ inscribed in orange (see photo p.19). It is always worth reporting such ringed birds to the BTO (British Trust for Ornithology), and in this case Rob later found out that this individual had originally been ringed in Gloucester at a landfill site in February 2007. It first turned up in Roath Park in October 2007 and has stayed there ever since apart from a winter vacation to France in February 2010, when it was spotted in Brittany, but it was back in Roath Park by April of that year!



Ringed lesser-black backed gull. Photo by Linda Nottage.

However, ten of us were up for more, and decided to drive over to Forest Farm to see what we could find there.

We parked in the public car park, and had lunch in our cars (it was warm there!) while admiring a new 4.5 m tall statue of a 'forest giant'. This had been carved out of the trunk of a redwood tree, which had died last summer (see photo). This amazing carving had been done using chainsaws by Chris Wood of Wood Art Works in Newport. (Another one of these people whose job seems to be dictated by their names)! Astonishingly, it evidently only took about three or four days to complete in early December.

After lunch we wandered up to the hides and were rewarded with stunning views of a kingfisher, clinging on to the reeds and scanning the water for fish. The light was absolutely perfect with the golden reeds glowing in the background and the colours of the kingfisher vividly picked out against them: a very memorable sight.

After this, we headed towards the Glamorgan Canal while a buzzard circled over the trees. There was nothing else new, but we enjoyed watching some of the commoner woodland birds coming to a feeding station close beside the path and got lovely views of a pair of grey wagtails foraging on some floating vegetation in one of the old locks.

We completed a circular walk and got back to the cars at about 3pm. In total we saw 42 species (not all mentioned above) and had a thoroughly enjoyable, if somewhat chilly, day.

Thanks as always to Rob and Linda for their very knowledgeable and expert guidance.



Forest Giant at Forest Farm. Photo by Richard Cowie.

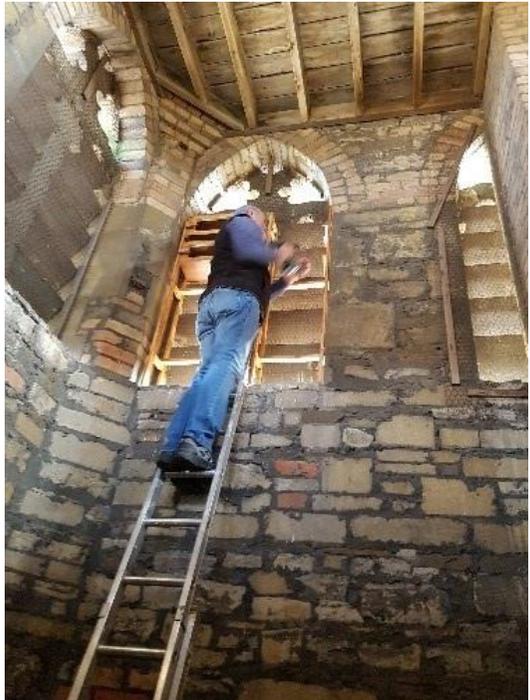
The Glamorgan Swift Project

Alan Rosney

Between 2007-11 the British Trust for Ornithology (BTO) organised a national bird survey, which highlighted the rapid decline of many bird species. One species that has suffered a huge decline is the Common Swift (*Apus apus*). The Glamorgan Bird Club committee set out a plan of action for this iconic species. It is thought that the blocking up of roof cavities, and consequently swift nest sites, is a major factor in their decline. If the current decline continues, we could lose the swift as a breeding species within the next 30 years.

Firstly we approached the Welsh Ornithologist Society for funding to set up a number of swift projects. The aim was to set up a series of nest box schemes throughout eastern Glamorgan. To

date, we have erected boxes in Bedwas, Llantwit Major and Penarth. A major constraint has been the cost of scaffolding (swifts prefer to nest at least 5 m up). We quickly realised that church towers make ideal locations for installing boxes. Below, Howard is fixing boxes in Trinity Church in Penarth.



Several other churches have been approached and we hope to put up more boxes. Some of the church goers are concerned that the swifts will make a mess inside the church but swifts make little mess, unlike bats and pigeons. One extra that we have had to add is a small system that plays swift calls to attract them to investigate the boxes. It may take a few years to establish colonies, as older swifts are site faithful and our boxes are only likely to attract young swifts, which don't breed until they are 3 years old.

An exciting project has arisen from this project. In conjunction with the RSPB and the Cardiff Harbour Authority, the Glamorgan Bird Club applied for Lottery funding for a purpose built swift tower, to be placed on the Cardiff Bay Barrage. We were awarded a substantial grant and this project is progressing well. This 90 box tower should be in place for the swifts return in May. Below is a picture of a similar swift tower in Exeter. We will be holding a launch event once groundworks are complete. Watch this space.



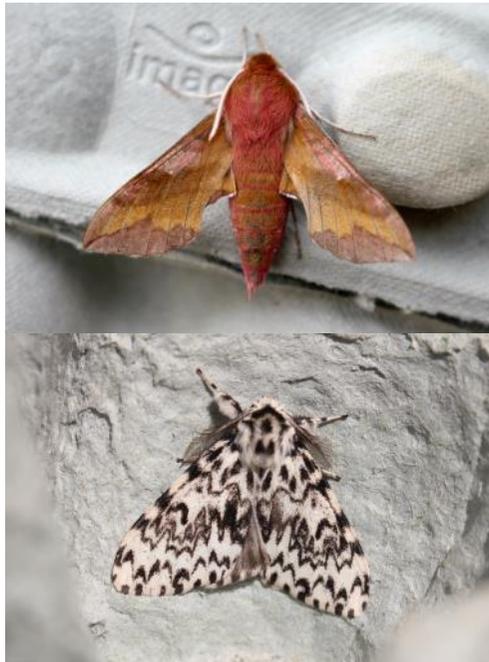
Find out more about the Glamorgan Swift Project:
glamorganswiftchampions.blogspot.co.uk

Brief Encounters with Bugs

Mary Salter

The latter half of Summer 2017 proved a rewarding time for observing insects in the garden. On July 9th I opened my moth trap to find well over 30 species, including 3 types of Hawkmoth – Elephant, Small Elephant and Poplar. A fortnight later the catch included a Black Arches which was a first for me.

August 15th was a bumper day for butterflies – we had 14 species including Red Admiral, Peacock, Painted Lady, Brimstone Yellow, Comma, Speckled Wood, Small Tortoiseshell, Small Copper and Common Blue as well as the usual Browns and Whites. On the same day Golden-ringed and Southern Hawker Dragonflies and a Common Darter were seen over the pond and I saw a hawker catch a white butterfly.



Small Elephant Hawkmoth (top) and Black Arches (bottom).

A month later the large Eucalyptus tree was in full bloom. The nectar is particularly favoured by Red Admirals and there were at least 18 in the garden on September 26th, many on the Eucalyptus as well as on Sedums, Michaelmas Daisies and Arbutus. Chiff Chaffs always take advantage of the abundance of insects in the Eucalyptus and we see them every year at this time. Small Tortoiseshell numbers peaked at 11 on September 18th, feeding mainly on Sedums and Michaelmas Daisies.

The apples were ripening now, and again it was the Red Admirals which took advantage of the bonanza, not to mention Hornets and Wasps. We have had lots of Hornets in the garden the last couple of years and this year they were feasting on the glut of ripe apples. I also saw one catch and roll up a small insect in its jaws.



Red Admiral (top) and Hornet on apples.

On October 14th I set up my moth trap for the first time since July and was delighted to find a Merveille du Jour and a Blair's Shoulder-knot among the 16 species waiting to be identified the next morning.

October 25th dawned bright and sunny. The first thing I spotted was a different dragonfly ovipositing in the pond and I realized it was a Common Hawker. After photographing it I turned my attention to the Greater Water Boatmen which appeared to be mating just under the surface of the pond. The light was excellent and as I watched I saw a 22 spot Ladybird in the grip of the upper Boatman. The mating didn't seem to affect the eating (or the other way round) and, even though the Ladybird was briefly released, its fate was sealed and I watched it being turned over in its predator's jaws and presumably sucked dry. What a dreadful fate!

As a footnote, on November 24th, a beautiful day if a little cold out of the sun, I saw 3 Red Admirals nectaring on the yellow flowers of the large Mahonia in our front drive. Bug-watching last summer was both fascinating and fun. I look forward to new discoveries this year.



Greater Water Boatmen mating and eating Ladybird.



Merveille du Jour



Common Darter



Common Blue male



Photo of a marmot, in Rufikopf (Austria) by Phill Blanning, which was included in his Members' Evening presentation on 15 Jan 2018.

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