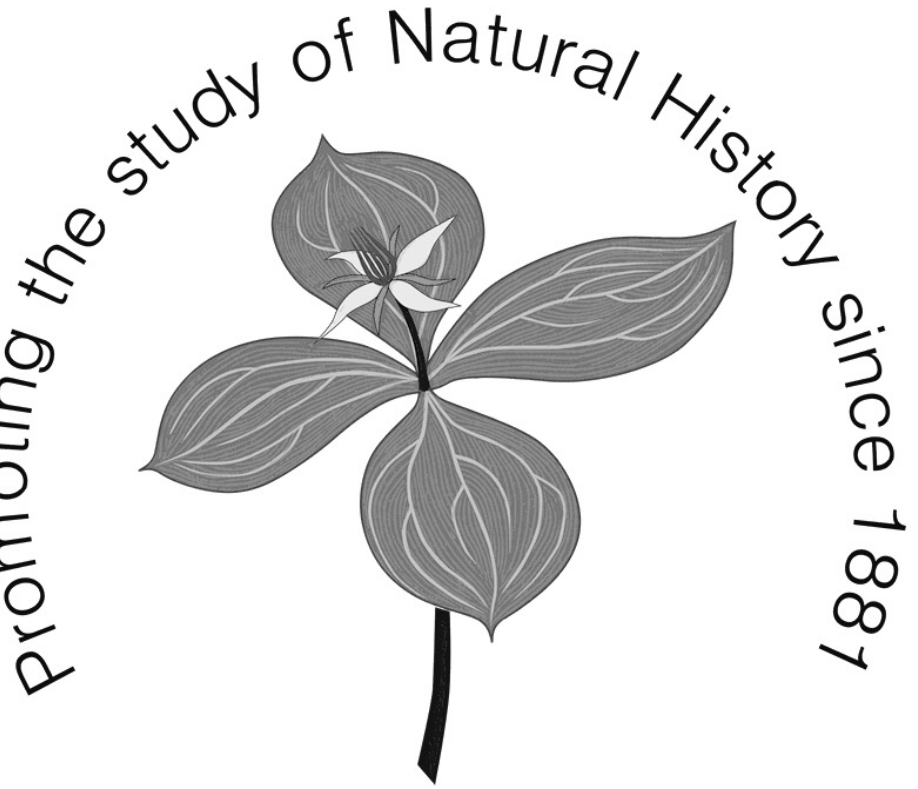
The Reading Naturalist

No. 70



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THE READING NATURALIST

No 70 for the year 2017

The Journal of the

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My special thanks to all the contributors for their indefatigable efforts in meeting the deadlines whilst carrying on with their busy lives. The Honorary Recorders do a fantastic job, as well as the many who produce the records of the walks, excursions and meetings, articles and help with validating and proof reading, in particular Julia Cooper and Jan Haseler, without whom the task of producing the Naturalist would be impossible.

So now it is time for anyone with a passion for natural history to create interesting articles for the next RDNHS Naturalist journal. The spring, summer and autumn time is imminent to inspire you in your particular fields of interest. So don't forget to document and photograph all those interesting expeditions and discoveries, whether they are near or far and submit them for publication here.

Ken White (Hon. Editor)

Presidential Musings by **David Cliffe**

When invited to become President, I knew about the annual Presidential Address, having been present at a few of them. But the "musings" had passed me by until recently. My mind will wander off on its own without much prompting, especially during solitary lunches in comfortable chairs in familiar restaurants. Today is a lunch-time in late December, between Christmas and the New Year.

I haven't managed to go on many of the field excursions, but did manage to get to the Dry Sandford Pit in July, to see the Marsh Helleborines in bloom. What I had not expected to see was the Marsh Fragrant-orchid, *Gymnadenia densiflora.* It was there in all its glory, and there I stood, camera in hand, with water coming over the tops of my boots! This was a first time for me, and a red-letter day. (Of course, there were many other delights to experience during the visit).

After nine months in post, one of the first things to come to mind was that ours is an extraordinarily good society to belong to, if you're at all interested in natural history. I wish I'd joined as a younger man – I've learned so much from people older than myself, great characters, some of whom are no longer with us. I wish I could have known them for longer. Then, since re-joining the committee, I'm amazed at the commitment of its members. They make me feel like a bit of a light-weight dabbler in the shallows, while many of them undertake survey work and practical conservation work, on top of what they do for the Society. And all this to improve the natural (and semi-natural) environment for the rest of us, and our understanding of it.

Arranging the programme of talks for the colder part of the year is a major part of what we do, and I've been impressed by people's knowledge in recommending speakers, and finding speakers on a wide variety of different subjects. I must admit to having been a bit non-plussed on being shown the draft programme of speakers and their subjects for the 2017-18 season, and asked if I was happy with it! Needless to say, I was. As President, I am expected to "preside" over all these indoor meetings. I can no longer pick and choose, as I used to, and I have to stay awake and pay attention. It has been interesting to compare the different styles of presentation. The success of any talk is a matter of finding the right balance for your audience. We are a "general interest" natural history society, and that is something that appeals to me. It has given me great pleasure, for example, to be taken on a "bat walk" near the Basingstoke Canal with "bat meters," and to hear the sounds made by the different species. More recently, I went to Slimbridge with some keen bird-watchers and saw flocks of waders in the estuary from a hide. And the fungus forays have always been enjoyable.

Not everyone likes the "academic" style of talk on a very narrow subject. If you're unlucky, someone presents what is really the summary of a doctoral thesis, with copious bar-charts, graphs, pie-charts and statistical tables. Unless you are an expert, these can be frustrating, and I often think that what the speaker is trying to put across could be explained in a few words, without the need for "visual aids" at all. To be able to make anything of them, I would need to have explained to me what the horizontal and vertical axes signified, and whether the numbers represent a lot or a little. At the same time, it is good to know that you are in the hands of an expert – someone who is at the forefront of current research. And it's comforting to think that this kind of research still goes on, and that someone is willing to pay for it.

One of my grumbles is with speakers who put a load of text onto the screen, and then talk about it. I'd rather just concentrate on the speaker. Maybe this is a "male thing," being unable to read and listen at the same time. I suspect some speakers do it so that they don't have to glance at their notes! Then there are speakers who put up several pictures on the screen at the same time, but the pictures are too small to mean very much. Maybe this is my own fault, because I'm short-sighted!

Knowledge is important, but enthusiasm counts for a lot in my book. Here I can't help but think of the two internationally renowned singers, who appeared in recitals with piano accompaniment in the Reading Concert Hall, a few months apart. One had his head in the music for most of the time, and the singing was wonderful, but all a bit "intellectual." The other looked at his audience, made immediate contact, and sang with emotion, but without exaggerated histrionics. I've

noticed the same phenomena in Pangbourne Village Hall. There have been some recent talks which I wouldn't normally have gone to, but the speakers have won me over with their enthusiasm, and I have sat there thinking "Yes . . . here is someone who has given a large part of his or her life to this subject . . . This person really knows . . . This person really cares about the subject . . . This study could well make things better, for the natural environment and for the rest of us . . ."

Our Society has now been presenting talks for almost 150 years. Occasionally I have wondered whether, in future, the speakers will record their presentations. There are a few talks I've been to that I would rather like to hear again. Perhaps in the future subscribing members will download them from the Internet and watch at home. Maybe the presentation will be in 3-D, with the presenters appearing to stand in front of your television receiver. The sound and vision will be perfect, the pictures wonderful, and you won't need to get to Pangbourne Village Hall. Let us hope it never comes to that! In a world of ever-increasing automation, where you can make all kinds of transactions without speaking to a living soul, our need for human interaction is as great as ever. Meeting other people for talks, walks, giving, receiving and recording information are very much what we are about, and long may we continue!

MEMBERSHIP by **Norman Hall & Ian Duddle**

Paid up Membership figures as they stand as at the end of December 2017

Single members	74	(inc 8 Honorary members)
Family/Couples	71	
Total	**145**	

of which we welcomed as 22 new members to the group:

Catherine & Roger Crawford	Roy Dobson
Rachel & Steven Woolnough	James, Belinda and Alexandra Drew
Kimble Earl	Vicki Meyer-Laker
Mrs June Forbes	Mr Graham & Mrs Lesley Parsons
Drusilla Kenney	John Redshaw & Rosie Tullett
Dr Matthew Wheeler	John Sharpe & Sue Gray
Mandy Slater	Chris & Sally Bergman

MEMBERS' OBSERVATIONS 2017 by Julia Cooper & Rob Stallard

3rd January

Jan Haseler – had spotted Hazel catkins dropping pollen at Basildon Park on 30th December.

John Lerpiniere – 11 Roe Deer seen together near Winterbourne.

Susan Twitchett – Peacock butterfly in her house at Upper Basildon.

17th January

John Lerpiniere – 2 male Blackcaps in his Tilehurst garden last Saturday.

Avril Davies – a Great Spotted Woodpecker drumming in Mill Lane, Henley. Norman Hall had also heard one drumming on trees in Earley this morning and at other times on his neighbour's chimney.

Jan Haseler – a Song Thrush singing in Tilehurst this week.

Renée Grayer – a Pheasant regularly visits her Earley garden, today a Fox came at the same time. The Pheasant appeared concerned but the Fox ignored it and walked off.

7th February

Jan Haseler – a Song Thrush singing in her Tilehurst garden on 4th/5th Feb.

Julia Cox – saw a Mole in daylight for the first time, at Aldermaston Wharf one afternoon about 3pm on 1st February. It was about the size of a tennis ball.

Roger Frankum – commented on the absence of Siskins and Redpolls this winter at Bucklebury, compared with last winter when they were plentiful.

John Lerpiniere – Great Northern Diver was reported at Theale Lake on Sunday 5th, and a Tawny Owl heard hooting in Pangbourne today.

Marion Venners – a Bumblebee in her garden in Purley on 5th February.

Andy Bolton – a pair of Ravens flying over, and a Blackbird singing this afternoon, both in Axmansford.

21st February

Tricia Marcousé – Snowdrops and Aconites at Swyncombe Church are in full bloom and could be visited after the field trip on Saturday.

Jan Haseler – Frogs started to arrive in their Tilehurst pond last night and the number is now up to 35.

Jane Sellwood – Toads have started migrating at Farley Hill – one was seen on Saturday and 115 last night. Two Coal Tits came into her Lower Earley garden 2 weeks ago; yesterday one was caught and eaten by a Sparrowhawk.

Sally Rankin – Toads are also migrating in Henley. A Red Admiral was nectaring on snowdrops last Friday and Sunday.

Chris Howlett – a Brimstone flying by the Thames at Mapledurham Lock at the beginning of last week.

Michael Keith-Lucas – large numbers of Honeybees on crocuses in his Reading garden last weekend.

Roger Frankum – a Brimstone in Upper Bucklebury yesterday.

Brian Sargent – a Kingfisher taking fish from his pond in Beenham.

Alan Parfitt – 5,000 each of Lapwings and Golden Plovers at Otmoor today. Unusually high numbers are visiting because of cold weather on the Continent.

Ailsa Claybourn – a covey of 9 Grey Partridges at Sulham Farm last Tuesday. Her visitor Gina Burlinson had ringed a Firecrest at Thatcham Discovery Centre last Thursday.

7th March

Jan Haseler – Wild Daffodils were already in flower at Pamber Forest yesterday; earlier than expected.

Ian Duddle – a pair of Goldcrests seen several times from their Tilehurst garden over the last 2 weeks, foraging on birch and apple trees.

Alan Parfitt – 4-5,000 Golden Plovers are still at Otmoor, but are likely to travel north shortly. Numbers are greater than the usual 3,000.

Jerry Welsh – two Ravens foraging in their Sonning Common garden Wednesday 1 March.

John Lerpiniere – two Ravens at West Woodhay today.

Ken White – a fresh Blackbird eggshell in Windsor today, he couldn't tell whether it had been predated or had hatched.

Tony Rayner – a Grass Snake in Cholsey meadow on 20 February, two weeks earlier than expected and his earliest ever sighting, found in a heap with 13 Slow-worms.

Dick Croker – a male Brimstone in his Tilehurst garden today and also a large number of Bumblebees. The temperature was 7°C.

Roger Kemp – confirmed many early sightings of Brimstones on 20 February.

David Owens – a Little Egret at Dinton Pastures on 1 March.

Andy Bolton – two pairs of Bullfinches in his garden at Axmansford this morning.

Tim King (speaker) – Ants had remained active during December and January, the first time he had seen this in 50 years.

21st March

Tony Rayner – a large flock of Meadow Pipits visited his wildflower meadow at Cholsey today, which he hadn't seen before in 25 years. A Treecreeper in his garden had climbed a tree and then both chimneys last week, another first time observation.

Ken White – Skylarks singing in the dark at 5am this morning over fields of winter wheat and oilseed rape at Ashford Hill.

Tricia Marcousé – Buff-tailed Bumblebee workers collecting pollen last Thursday at Crescent Road, Reading.

Jane Sellwood – about 600 Toads were helped in their migration at Farley Hill over a 10 day period, a similar number to the last 2 years.

Sally Rankin – over 7,000 Toads were helped across the Henley to Marlow road, also more frogs and newts than usual.

3rd October

Jane Sellwood – has an Earthstar fungus in her front garden at Lower Earley.

Michael Keith-Lucas – reported a Brimstone in his garden in Earley and at Basildon Park, and Forsythia in flower, which would normally be considered indications of spring.

Ailsa Claybourn – last Tuesday heard Chiffchaff and Cetti's Warbler singing and saw 2 Red Admirals, a Comma and a Small Copper.

Jan Haseler – a Blue Underwing in her Tilehurst garden a week ago. This moth used to be a very rare migrant but there has been a population explosion recently.

17th October

Tony Rayner – monitoring the Small Copper population at Cholsey. This year there were 3 broods, the first was the worst he has recorded, the second was average and the third amazing, with up to 17 seen on one day.

John Lerpiniere – a third brood Holly Blue seen in Tilehurst 4 days ago.

Roger Kemp – Red Admiral, Comma, Green-veined White, Small Tortoiseshell and Speckled Wood butterflies last Sunday in his garden in the Vale of Aylesbury, south of Dinton. Orange-tips have done well on Garlic Mustard in the garden this year.

Marion Venners – a Brimstone in her garden in Purley yesterday.

Anne Booth – a Blue Underwing (Clifden Nonpareil) at Moor Copse.

Norman Hall – also saw a Blue Underwing while moth trapping at Thatcham Discovery Centre last Saturday 14 October. The moth has been breeding on poplars/aspen. About 30 moth species and also hornets were seen, and a Common Newt on the sheet.

7th November

Jenny Greenham – a Comma at her allotment in Hampstead Norreys this autumn, a first sighting for her.

Roger Kemp – 4 Red Admirals on apples in his garden in the Vale of Aylesbury, south of Dinton; unusual as this was soon after sunrise on Monday morning after a frosty night.

Ken White – 2 Bramblings in his garden at Plastow Green on 22nd October, on 29th a Skylark singing at Charlbury, and the same day saw a Kingfisher flying across the A34 while watching a flock of Fieldfares doing the same.

Andy Bolton – a Woodlark flying and singing last week at Axmansford.

Susan Twitchett – a Brimstone at Basildon Park on 5th November.

Brian Sargent - more than 30 Parasol mushrooms, some more than a foot (30cm) across, at his home in Beenham near Aldermaston Wharf back in September.

21st November

Tony Rayner – at home in Cholsey two weeks ago had seen a Yellow-browed Warbler.

Philip Allen – a Painted Lady at Shinfield Meadows last Friday.

Brian Sargent – a Hawfinch at Padworth Church reported yesterday. Tony Rayner confirmed there has been an influx recently.

5th December

Ken White reported that there had been 10 Bramblings in a mixed flock with Goldfinches and Siskins, feeding on seeds of Alders beside the Kennet and Avon canal near Theale.

Tony Rayner reported that a Kestrel had been roosting on a protruding beam on the gable end of his cottage at Cholsey.

RDNHS EXCURSIONS 2017

Reports by Renée Grayer, Jan Haseler, Ken White, Sarah White, Sean O'Leary, Julia Cooper, Norman Hall and Tricia Marcousé

5th - 8th January North Norfolk Coast

Ken and Sarah White organised a trip to the **North Norfolk Coast** from **5th- 8th January,** staying at the Blakeney Manor Hotel. The weather was cold, still and sunny on the **Thursday** when the party of 12 assembled at the **RSPB Titchwell Marsh Reserve**. Two Water Rails *Rallus aquaticus* were feeding in a ditch next to the path. Many waders and ducks, including Wigeon *Anas penelope*, Teal *A. crecca*, Shoveler *A. clypeata* and Shelduck *Tadorna tadorna,* were feeding in the various lagoons of the reserve. Big flocks of Lapwing *Vanellus vanellus* and Golden Plover *Pluvialis apricaria* rose up into the air from time to time while Grey Plovers *P. squatarola* fed singly on the mud. Black-tailed Godwits *Limosa limosa* with plain grey backs could be compared with scaly-backed Bar-tailed Godwits *L. lapponica*. Out on the sandy beach were Dunlin *Calidris alpina*, Oystercatcher *Haematopus ostralegus*, Turnstone *Arenaria interpres*, Sanderling *Calidris alba* and a few Knot *C. canutus*. Further out were big rafts of Common Scoter *Melanitta nigra*. About 20 Marsh Harriers *Circus aeruginosus* were seen in the failing light on the return walk through the reserve.

The first destination on **Friday** was the **Norfolk Wildlife Trust [NWT] Cley Reserve**. Handsome Pintails *Anas acuta* were feeding in the first lagoon. Also taking place that morning was a memorial event for the victims of a US Air Force helicopter crash in January 2014. The fly-past by 2 helicopters disturbed many of the birds on the reserve. On the pebbly beach were many leaf clumps of Yellow Horned-poppy *Glaucium flavum* and some of the group had a distant sighting of a Glaucous Gull *Larus hyperboreus*. After warming up at the reserve Visitor Centre, next stop was a short distance further east along the coast at **NWT Salthouse**. Food is regularly put out for birds at the base of the shingle bank and this had attracted a flock of about 60 Snow Buntings *Plectrophenax nivalis*. The group then drove south to **Stubs Mill**, to a viewpoint which overlooks a vast reedbed around **NWT Hickling Broad**. A number of Marsh Harriers were seen, but the hoped for Hen Harriers *Circus cyaneus* and Cranes *Grus grus* proved elusive.

Thick fog on **Saturday** led to a change of plan. Instead of visiting the RSPB Snettisham reserve, where it would be difficult to see distant birds, the group returned to **RSPB Titchwell**. On the way, three different species of goose were spotted in a small flock in a field near Holkham – White-fronted *Anser albifrons*, Pink-footed *A. brachyrhynchus* and Dark-bellied Brent *Branta bernicla* subsp. *bernicla*. A Brambling *Fringilla montifringilla* was seen near the feeders at the back of the visitor centre at Titchwell and Lesser Redpolls *Carduelis cabaret* were feeding in the tops of the Alders *Alnus glutinosa* nearby. Out on the lagoons, there were close views of a Spotted Redshank *Tringa erythropus* [aka Dusky Redshank], with a Common Redshank *Tringa totanus* nearby for comparison. The Spotted Redshank had a prominent eye stripe and a much longer bill. The colour leg ring on a juvenile Great Black-backed Gull *Larus marinus* showed that it was a first-year bird

which had fledged in west Norway [using www.cr-birding.org]. Amongst the big flocks of Common Scoter out to sea were about a dozen Velvet Scoter *M. fusca*, whose white wing patches on the secondaries [the speculum] were very obvious when they flew. Also seen were Long-tailed Duck *Clangula hyemalis*, Goldeneye *Bucephala clangula* and Red-breasted Merganser *Mergus serrator* and a Grey Seal *Halichoerus grypus* swam close to the shore. The afternoon's destination was **Abbey Farm, Flitcham**, where good hedges and strips of seed plants around the field margin attract finches, Tree Sparrow *Passer montanus*, Grey Partridge *Perdix perdix* and Stock Dove *Columba oenas*. Within the field was a vast flock of Pink-footed Geese. A Little Owl *Athene noctua* was heard calling nearby.

On the **Sunday** morning, the group were enchanted by a flock of about 30 Shore Larks *Eremophila alpestris* which were feeding on the seeds of Glasswort *Salicornia* sp. at **Holkham Gap.** They were remarkably tolerant of people and dogs, as long as the latter were on leads, and represented about 1/3 of the UK wintering population.

4th February Thorney Island

Ken and Sarah White led a walk at **Thorney Island, Emsworth, Chichester Harbour** on **Saturday 4th February**. It was a cold but sunny day with light winds. In the morning, 11 members headed out to the west side of the Island. Small flies were on the wing and several Chiffchaffs *Phylloscopus collybita* were feeding on them in the bushes round a pond. It was low tide and there were good views of Brent Geese, Redshank, Curlew *Numenius arquata*, Ringed Plover *Charadrius hiaticula,* Black-tailed Godwit and Dunlin on the mudflats. A pale Greenshank *Tringa nebularia* was feeding at the water's edge, Turnstones were busy turning the seaweed and several feral Black Swans *Cygnus atratus* were spotted by the quayside. A Kingfisher *Alcedo atthis* flew from the marsh and perched on the hull of a moored boat, then moved to the cross-trees on the mast of another boat. The pinging call of Bearded Tits *Panurus biarmicus* was heard coming from the reedbed and Golden-samphire *Inula crithmoides* was identified on the sea wall. The Little Deep and the Great Deep are areas of open water within the reedbed. On the Little Deep were Little Grebe *Tachybaptus ruficollis*, Gadwall *Anas strepera* and Tufted Duck *Aythya fuligula*. A large flock of Lapwing and numerous Wigeon were on and around Great Deep. After lunch, the group set out towards the east side of Island. An active little bird in an Evergreen Oak *Quercus ilex* beside the lane turned out to be a Firecrest *Regulus ignicapillus* and it gave excellent views to the delighted observers. In the channel on the eastern side of the island were a small party of Red-breasted Merganser and many Brent Geese. The group then drove to the west side of **Hayling Island** to the **Oyster Beds**. A mixed group of Mediterranean *Larus melanocephalus* and Black-headed Gulls *Chroicocephalus ridibundus* were swimming just off-shore and resting on an adjacent shingle bank. The adult Mediterranean Gulls had jet black heads, bigger bills and all-white primaries. A single distant Black-necked Grebe *Podiceps nigricollis* was spotted further out in the harbour. Most of the group then stayed for a meal in a local restaurant before heading back towards Reading.

25th February Nettlebed Common

Jerry Welsh, ably assisted by Sally Rankin and Alan Parfitt, stepped into the breach at short notice and led 21 members on a walk round **Nettlebed Common** on the morning of **Saturday 25th February**. Jerry showed the group the sole remaining kiln, formerly used for making bricks and tiles. The walk started out along Chapel Lane and onto the Common. In the clay beside the track was a large pond with murky brown water. Jerry explained that rainwater collected in pools like this would have been the sole water supply for the village in bygone times, because Nettlebed is the highest point in the area and there are no springs nearby. According to local legend, the dense

clumps of Snowdrops *Galanthus nivalis* beside the path had originally been planted by gypsies for picking and selling. A little further on, a deep round pit with no obvious exit ramp was identified as a sink hole. Jerry then led the group to one of a series of ponds which have been excavated in a project funded by the Trust for Oxfordshire's Environment. The ponds are of varying sizes and depths, with some draining into others. Trees have been cleared around the ponds to let in the light. The resulting habitat should be good for amphibians. Around the pond were big clumps of Scaly Male Fern *Dryopteris affinis*. Continuing round the Common, the route ran beside boundary banks with big old multi-stemmed trees. Several bright red Scarlet Elfcup *Sarcoscypha austriaca* fungi were spotted beside the path and fresh new Bluebell *Hyacinthoides non-scripta* leaves were showing well beneath the Beech *Fagus sylvatica* trees. Three male Blackbirds *Turdus merula* flew past, engaged in a furious dispute and making a great deal of noise. A group of Red Kites *Milvus milvus* were circling over the adjacent fields and a smaller Sparrowhawk *Accipiter nisus* flew above them, with its distinctive flapping and gliding flight. The walk continued up an old sunken trackway and past an enormous old Beech pollard. Back in the village, the path behind the cricket pitch led up to a dry open area on gravel. Sally explained that when the trees had been cleared and the Bracken *Pteridium aquilinum* litter scraped away, Heather *Calluna vulgaris* rejuvenated naturally. **Priest Hill** is a SSSI, designated for its geological importance. A sign described the geology of the area, saying that the Nettlebed gravels were the highest and oldest in the Thames Valley. They are now 150m above the level of the Thames. Pollen grains preserved in organic silts and clays come from one of the earliest inter-glacial periods to be preserved in the Thames catchment. They show the transition from a cool climate with dominant Birch *Betula* to a warmer climate with Oak *Quercus*, Elm *Ulmus*, Hornbeam *Carpinus betulus* and Hazel *Corylus avellana*. The path climbed steeply up to Windmill Hill, then back to the village green, passing a flowering Stinking Hellebore *Helleborus foetidus* plant on the way.

11th March BBOWT Warren Bank

Sean O'Leary led 14 members on a walk to look at mosses and liverworts on the lovely sunny day of **Saturday 11th March**, . Starting from the King William pub at Hailey, the route led up the track towards the **Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust [BBOWT] Warren Bank Reserve**, **Ipsden,** a small reserve which has some fine chalk grassland. Early Dog-violet *Viola reichenbachiana* and Lesser Celandine *Ranunculus ficaria* were in flower beside the track, the leaves of Sanicle *Sanicula europaea* and Woodruff *Galium odoratum* were seen, a Tawny Owl *Strix aluco* hooted and Skylarks *Alauda arvensis* were singing overhead. Woodland moss species such as *Hypnum cupressiforme, Fissidens taxifolius, Kindbergia praelonga* and *Brachythecium rutabulum* were abundant and helped to demonstrate the beautiful structures of the moss capsule, with the minute peristome teeth which control the release of spores. *Lophocolea hetero-phylla* was also found in fruit, demonstrating the very different spore capsule typical of liverworts. In the more open grassland at Warren Bank, *Scleropodium purum, Homalothecium lutescens* and *Calliergonella cuspidata* were found. Searching on hands and knees amongst the ant hills yielded *Weissia controversa*. Wild Thyme *Thymus polytrichus* was growing on the south side of the ant hills. There were a number of newly-emerged Bloody-nosed Beetles *Timarcha tenebricosa*, including a mating pair. Big queen bumblebees were on the wing, Hairy Violet *Viola hirta* flowers dotted the turf and to everyone's great surprise, a Barn Owl *Tyto alba* flew out of a nest box.

25th March Nettlebed Common

Ten members joined Lesley Dunlop on the morning of **Saturday 25th March** for the rescheduled geology walk at **Nettlebed Common**. Lesley explained that on most of the Common the sands and

clays of the Lambeth Group overlie the chalk bedrock. These remnants of a more extensive deposit were deposited about 60 million years ago in a warm estuary. They provided raw materials for the brick and pottery industry and there are many ponds in the former clay diggings where impermeable clay prevents rainwater from draining into the chalk below. The Lambeth Group sands and clays are acidic, so in more sandy areas acid groundwater can pass through fissures in the underlying chalk and eventually dissolve enough to produce a sinkhole. A fine example of this was found a short distance into the woods from the start of the walk at The Green. A large 4m x 5m sinkhole had opened up about 3 years previously after a wet January. The boundary of the chalk layer was visible, and some bricks on one side suggested the hole may have opened up previously and been filled in. Other sinkholes have appeared in local gardens. Heading back up Chapel Lane, Green Alkanet *Pentaglottis sempervirens*, Gorse *Ulex europaeus* and Primrose *Primula vulgaris* were in flower and the first Brimstone *Gonepteryx rhamni* of the day was spotted. After crossing the Recreation Ground, the route led to **Priest Hill**, an area with Nettlebed gravels and interglacial organic silts which is a SSSI for its geological significance. Lesley explained that this was a chalk landscape up to 80 million years ago. There is no chalk younger than this here although the end of the Cretaceous period was 65 million years ago – there is a 20 million year gap. This may be because this area had been uplifted above sea level. The exposed surface would then have been subject to weathering. The Lambeth Beds were deposited in the estuarine environment which followed. There is no other geological record in this area for another 50 million years. The gravel deposits are dated at 2 million years ago. Although there was glaciation as far south as Aylesbury there was no ice cover here, just permafrost, so the water passing over the surface would have caused some erosion. During glacial periods there was more surface run off, and the rivers cut down through overlying layers. Braided river systems were formed where the river regularly switched channels and deposited gravel. The Nettlebed gravel is the oldest associated with the Thames. It is probably not a terrace deposit, but possibly a gravel deposit across an area which was preserved because it dropped into a sink hole – other small gravel deposits exist locally. Subsequently the drainage pattern of the Thames changed and included the Midlands. Then the terraces nearer the Thames were established with more local material. The path led to an area near a large Beech tree where the 2 million year old gravel is exposed. The older rounded stones are flints which must once have been on a shore line, because the action of river water is not sufficiently intense to round off flints. A broken pebble showed a 2-3mm worked layer. The gravel also contained small creamy white quartz stones, which would have originated in veins of igneous rock, probably granite in SW England or Brittany. In the Triassic period erosion caused by flash floods washed pebble beds to the Midlands. These quartzite Bunter pebbles were carried down by the river systems and deposited in younger gravels here. The walk then continued, leaving the gravels and moving back onto the Lambeth Beds, with muddy patches due to bands of clay in the sand layers.

8th April Silchester Common

Jan Haseler led 17 members on a walk across **Silchester Common** and round the Hampshire and Isle of Wight Wildlife Trust's **Upper Inhams Copse Reserve** on **Saturday 8th April**. It was a warm, sunny day and a wall of scent from the Gorse hit the group as they started out across the Common. The Trust's Dexter cattle were grazing nearby. There were pink flowers on the Bilberry *Vaccinium myrtillus* plants, Willow Warblers *Phylloscopus trochilus* were singing and a bright green beetle flew up from path. The route crossed two stream valleys and then came to a wooded section where the leaves of Lily-of-the-valley *Convallaria majalis* were coming up beside the path. Continuing down into a wooded stream valley, a stand of leafless Aspens *Populus tremula* looked pale and skeletal. Spring flowers here included Wood-sorrel *Oxalis acetosella*, Primrose, Common Dog-violet *Viola riviniana*, Wood Anemone *Anemone nemorosa*, Solomon's-seal *Polygonatum multiflorum* and Greater Stitchwort *Stellaria holostea*. At the far side of the Common, the walk continued down into Upper Inhams Copse. At a damper stretch where a stream crossed the path,

Bugle *Ajuga reptans*, Yellow Pimpernel *Lysimachia nemorum*, Moschatel *Adoxa moschatellina* and a small Common Frog *Rana temporaria* were noted. In the adjoining damp meadow, the pale feathery leaf spikes of Tubular Water-dropwort *Oenanthe fistulosa* were found in one of the wet ditches, Marsh-marigolds *Caltha palustris* were in flower, an Orange-tip *Anthocharis cardamines* egg was spotted on a Cuckooflower *Cardamine pratensis* plant and a Large Red Damselfly *Pyrrhosoma nymphula* was seen. The walk continued round the copse. Although it was several weeks before their usual flowering time, Bluebells were beginning to create a carpet of blue. The leaves of Pignut *Conopodium majus* and more Solomon's-seal plants were seen. Speckled Wood *Pararge aegeria*, Holly Blue *Celastrina argiolus* and Brimstone butterflies were flying in the sunshine. A little way back from the path, a number of deep pink *Oxalis* flowers were found, which sparked a debate as to whether they were native or garden escapes. Subsequently, Tony Mundell, the Botanical Recorder for North Hampshire, confirmed that they were a rare colour form of the native Wood-sorrel. The return route forded the stream, then followed the track back up through Lord's Wood to Impstone Road.

30th April BBOWT Moor Copse

Michael Keith-Lucas led 25 members on a walk at **BBOWT Moor Copse, Tidmarsh** reserve on the cloudy morning of **Sunday 30th April**. The first part of the walk was along the bank of the River Pang and through the damp woodland of Hogmoor Copse, which is regularly flooded by the alkaline waters of the Pang. Along the river bank, sightings included Hemlock Water-dropwort *Oenanthe crocata*, Common Comfrey *Symphtytum officinale*, abundant Large Bitter-cress *Cardamine amara*, white-flowered Dewberry *Rubus caesius*, Red Currant *Ribes rubrum* and Hop *Humulus lupulus*. Goldilocks Buttercup *Ranunculus auricomus*, Solomon's-seal and the leaves of Common Spotted-orchid *Dactylorhiza fuchsii* were found along Vinula Ride. After crossing the bridge over the Pang, the route led through Park Wood, which lies on a drier gravel terrace. Amongst the sea of Bluebells were the white flowers of Greater Stitchwort and Yellow Archangel *Lamiastrum galeobdolon*. Wood Speedwell *Veronica montana*, Wood Spurge *Euphorbia amygdaloides*, Bush Vetch *Vicia sepium* and Three-nerved Sandwort *Moehringia trinervia* were also seen. In a corner of the wood was a fine display of Early-purple Orchids *Orchis mascula*, with a few pink and white specimens mixed amongst the commoner purple flower spikes. A black and yellow Wasp Beetle *Clytus arietis* was spotted in the vegetation beside the path. The walk continued across 5-Acre Field, where Bulbous Buttercup *Ranunculus bulbosus* and Crosswort *Cruciata laevipes* were in flower, and into Moor Copse. Wood Anemone, Yellow Pimpernel and more Early-purple Orchids were seen here. The route then led out onto meadows where the scratchy song of Whitethroats *Sylvia communis* was heard. Cowslips *Primula veris* were flowering on the drier ridges and the leaves of Pepper-saxifrage *Silaum silaus* were identified. Jointed Rush *Juncus articulatus*, Water Avens *Geum rivale*, Cuckooflower, Great Burnet *Sanguisorba officinalis* and Marsh-marigold were found in the wetter parts of the meadows. The return route led past the ruins of Sparkmoor Cottage, where Star-of-Bethlehem *Ornithogalum angustifolium* was in flower. Finally, there was a mass of white-flowered Ramsons *Allium ursinum* on the banks of the Pang near the car park.

7th May Woolhampton

On **Sunday 7th May**, a hard core of 7 members braved the 5am rendezvous for a dawn chorus walk led by Ken and Sarah White, starting from the Rowbarge car park at **Woolhampton**. It was a cool morning with an overcast sky. For birds the spring is all about the breeding season, and the breeding season is all about male song birds singing to both defend their claimed territory and advertise their presence to potential mates. The car park tally was a good start; over and above

the mass chorus came the clear piping notes of a Song Thrush *Turdus philomelos* contrasted by the mellow improvising tones of a Blackbird. A bat was hunting over the water by the nearby bridge. The group set off to circumnavigate the nearby gravel pit (called the Rowney Predator Lake by fishermen), passing varied marginal vegetation including *Phragmites* reedbeds, willow *Salix* and Alder trees, patches of scrub and the lush surrounds of the River Kennet. In total, 34 species were identified on the 1.5 hour walk, 29 of them by song or call. The soft "3-blind-mice" song of a Reed Bunting *Emberiza schoeniclus* was drowned out by the scratchy scribble of a newly arrived and excited Whitethroat. Trilling Wrens *Troglodytes troglodytes* were heard nearly all the way round, rhythmical monotones from Reed Warblers *Acrocephalus scirpaceus* filled the reedy patches, but the string of singing highlights included velvety and liquid bursts from Blackcap *Sylvia atricapilla*, babbling Garden Warblers *S. borin* and outrageous "knock-you-over-sideways" deliveries from Cetti's Warbler *Cettia cetti*. A distant Cuckoo *Cuculus canorus* was heard, and the visual delights included pairs of Pochards *Aythya ferina* [increasingly a summer stayer] and Oystercatchers, not to forget the proud Canada Geese *Branta canadensis* with their large brood of very young goslings. The icing on the cake however had to be the svelte and gorgeous Grey Wagtail *Motacilla cinerea* that was seen at the end of the walk near the canal lock gates. Back at the car park, the walkers were rewarded with steaming hot drinks and biscuits which had been prepared in advance by Ken and Sarah.

25th May RSPB & MoD Otmoor

David Morris led a joint field trip with the Oxfordshire Flora Group at **RSPB Otmoor, Beckley** on **Monday 29th May**. Seven members from each group met at the RSPB car park, where Turtle Dove *Streptopelia turtur* and Grasshopper Warbler *Locustella naevia* were heard. The first destination was the SSSI meadow next to the Ministry of Defence (MOD) firing range. On the way, a ditch was passed with Greater Burnet-saxifrage *Pimpinella major* and Celery-leaved Buttercup *Ranunculus sceleratus* and David found Spreading Hedge-parsley *Torilis arvensis* near the rifle butts. The meadow itself was superb, with a purple haze of Meadow Thistle *Cirsium dissectum*, together with the pink of Ragged-Robin *Silene flos-cuculi* and the yellow of Meadow Buttercup *Ranunculus acris*. Close to the gateway were flowering Dyer's Greenweed *Genista tinctoria*, Heath Spotted-orchid *Dactylorhiza maculata*, Common Meadow-rue *Thalictrum flavum* and Pepper-saxifrage *Silaum silaus*, plus leaves of Saw-wort *Serratula tinctoria*, Devil's-bit Scabious *Succisa pratensis*, Betony *Stachys officinalis*, Great Burnet and Sneezewort *Achillea ptarmica*. A darkish-blue violet was identified as Heath Dog-violet *Viola canina*. A significant proportion of the abundant Meadow Thistles were affected by a white fungus. Amongst the sightings in the damper ditches were Tubular Water-dropwort, Marsh Stitchwort *Stellaria palustris*, Marsh Pennywort *Hydrocotyle vulgaris*, Marsh Ragwort *Senecio aquaticus*, Tufted Forget-me-not *Myosotis laxa* and the nationally-scarce Downy-fruited Sedge *Carex filiformis*. Paler blue violets were identified as hybrids between Heath Dog-violet and Fen Violet *Viola persicifolia*. A Turtle Dove called from the top of an isolated oak and a Cuckoo was heard. Then good numbers of the white-flowered Fen Violet were found. This meadow on Otmoor holds most of its UK population. It has not been recorded for several years from its two other British sites, Woodwalton Fen and Wicken Fen. Several Four-spotted Chaser *Libellula quadrimaculata* dragonflies were spotted down in the grass.

The afternoon was spent at The Pill, an area of grassland with shallow pools, on MOD land in the danger zone beyond the rifle range. The pools are protected from the agriculturally-polluted waters of the River Ray by an extensive buffer zone of grassland and they contain a number of rare wetland plants. Sightings here included Water-violet *Hottonia palustris*, Frogbit *Hydrocharis morsus-ranae*, Lesser Marshwort *Apium inundatum*, Common Bladderwort *Ultricularia vulgaris* and Lesser Water-plantain *Baldellia ranunculoides*. A Marsh Harrier flew across from the adjacent RSPB reserve and a large hairy Garden Tiger *Arctia caja* caterpillar was climbing through the vegetation above the water in one of the ponds.

24th June NT The Vyne, Sherborne St John

15 members joined a bee walk led by Trevor Smith at **National Trust [NT] The Vyne**, **Sherborne St John**, on **Saturday 24th June**. Trevor started in the walled garden, discussing the life cycle of common bees and looking at the holes in the mortar which mining bees had used earlier in the year. Small numbers of Red-tailed Bumblebee *Bombus lapidarius* and Common Carder Bee *B. pascuorum,* and workers of either the Buff-tailed or White-tailed Bumblebee *B. terrestris/lucorum* (these are very difficult to separate in the field), were seen on Sweet William *Dianthus barbatus* and Cornflower *Centaurea cyanus* and also on White Clover *Trifolium repens* in the cut grass. The comfrey bed outside the walled garden contained several Common Carder Bees, showing the wide variation in size and colour range within the single species. Moving on to an area of long grass with wild flowers, Garden Bumblebee *B. hortorum* was seen on Red Clover *Trifolium pratense*, Red-tailed Bumblebee and Common Carder were found on Common Bird's-foot-trefoil *Lotus corniculatus* and Common Knapweed *Centaurea nigra*, and a female Brown-footed Leafcutter Bee *Megachile versicolor* was seen flying over the grass. The herbaceous borders on both sides of the house were good hunting grounds with Red-tailed Bumblebee, Garden Bumblebee, Common Carder and a male White-tailed Bumblebee. The workers of Buff-tailed/White-tailed Bumblebees were abundant on salvia, nepeta, Yellow Scabious and heuchera. A male solitary Harebell Carpenter Bee *Chelostoma campanularum* was seen on campanula. Males of the Vestal Cuckoo Bee *Bombus vestalis* were around in both herbaceous borders, feeding on salvias. The queens of this species take over the nests of *B. terrestris*, lurking near the nest to pick up the scent and then killing the queen and laying their own eggs, which will then be looked after by the *B. terrestris* workers.

16th July BBOWT Dry Sandford Pit

On the fine afternoon of **Sunday 16th July**, 11 members took part in a walk around **BBOWT Dry Sandford Pit Reserve**, Abingdon, Oxfordshire. The walk was led by Alan Parfitt, who explained that the limestone cliffs here date back to the Jurassic Period. The nature reserve has many different habitats, including chalk grassland, fen, ponds, streams and woods and as a result, many different species of plants, insects and birds are found there. Chalk-loving plants included Wild Basil *Clinopodium vulgare*, Wild Mignonette *Reseda lutea*, Musk Thistle *Carduus nutans*, Agrimony, Wild Parsnip *Pastinaca sativa*, Common Centaury *Centaurium erythraea* (including a plant with white flowers) and Hairy St John's-wort *Hypericum hirsutum*. A bog provided still more interesting species such as the orchids Marsh Helleborine *Epipactus palustris*, mainly in fruit but some still flowering, Marsh Fragrant-orchid *Gymnadenia densiflora* and Common Twayblade *Neottia ovata*. A singing Reed Warbler was heard but not seen. In another field with chalk plants were Greater Knapweed *Centauria scabiosa*, Lady's Bedstraw *Galium verum*, Dark Mullein *Verbascum nigrum*, Salad Burnet *Poterium sanguisorba*, Field Scabious *Knautia arvensis*, Burnet-saxifrage *Pimpinella saxifraga* and the Woolly Thistle *Cirsium eriophorum*. One specimen of this magnificent thistle was nearly in flower and there were several enormous leaf rosettes. Many species of butterfly were fluttering in the chalk grasslands, including Comma *Polygonia c-album*, Red Admiral *Vanessa atalanta* and Gatekeeper *Pyronia tithonus*, and a Corn Bunting *Emberiza calandra* was heard. A wet area followed with Water Figwort *Scrophularia auriculata*, Marsh Thistle *Cirsium palustre,* Common Fleabane *Pulicaria dysenterica* and Water Mint *Mentha aquatica*. In a more wooded area were Dog's Mercury *Mercurialis perennis*, Lords-and-Ladies *Arum maculatum* with red fruits, Red Currant, Common Spotted-orchid (mainly in fruit), Remote Sedge *Carex remota*, Wavy Bitter-cress *Cardamine flexuosa*, Ploughman's Spikenard *Inula conyza* and the invasive alien Snowberry *Symphoricarpos albus*.

Another **BBOWT** reserve, **Parsonage Moor**, was nearby, so some of the group walked over there after the visit to Dry Sandford Pit. Prickly Lettuce *Lactuca serriola* was growing near the gate of

the reserve and in the bog were Water Mint again, Black Bog-rush *Schoenus nigricans* and the rare Marsh Lousewort *Pedicularis palustris*. Many leaves of Grass-of-Parnassus *Parnassia palustrus* were found, but no plants were in flower. Prompted by a pitch-black threatening sky, the visit to Parsonage Moor was cut short and the group retreated to the cars before the heavens opened.

29th July Upper Basildon

On **Saturday 29th July** about 20 members gathered for a '**Mothing and Summer Party**' at Peter and Susan Twitchett's house (Coromandel) in **Upper Basildon**. Despite having chosen an evening when it didn't stop raining until about 2.30 am, the party went remarkably well and Peter and Susan could not have been more hospitable. An excellent selection of food and drink was consumed in a marquee in the garden, while moth traps belonging to Paul Black, Jan Haseler and Norman Hall were running outside in the wet. Paul also ran a moth lamp over a sheet under a gazebo and was thus able to provide a constant supply of dry moths for examination in the marquee. We could not gather in groups around bare MV mothing lamps as we have done on all previous Society mothing evenings because it is too dangerous in rainy conditions - and nobody likes getting wet. By Sunday morning the rain had gone, so the 10 members who came early to view the overnight catch were very lucky - especially as Paul had stayed up all night and had caught many species of moths that had not been seen in the evening and were not present in the other traps in the morning. Coincidentally, the total number of species recorded this time (106) was exactly the same as it had been on 22 July 2006, eleven years ago, on our only previous Society mothing evening at Coromandel. Even more surprising were the differences between the two catches considering that their calendar dates only differed by 7 days. Just over half the moths we recorded this time were new to Coromandel, which is really quite astonishing. It was as though the moths thought that late July was in the summer in 2006, but in the autumn in 2017. Some of *us* thought the same. A summary of the night's catches are given below:

	Micros	**Pyrales**	**Macros**	TOTAL
22/07/2006	21	18	67	106
29/07/2017	15	16	75	106
Additions 2017	9	7	38	54

Moths seen included Rusty-dot Pearl *Udea ferrugalis* and Rush Veneer *Nomophila noctuella* (both of which are migrant micros), Clay Triple-lines *Cyclophora linearia*, Least Carpet *Idaea rusticata*, Small Scallop *Idaea emarginata*, White-spotted Pug *Eupithecia tripunctaria*, Maple Prominent *Ptilodon cucullina*, both Hoary *Eilema caniola* and Scarce Footman *E. complana*, Dark Sword-grass *Agrotis ipsilon*, Scarce Bordered Straw *Helicoverpa armigera* and Dark Spectacle *Abrostola triplasia*. The highlight of these was perhaps the Scarce Bordered Straw. This moth used to occur only as a migrant. Although large numbers of them came into the country in 2006, very few have been seen in the intervening years.

5th August Aston Rowant NNR

Jan Haseler led a walk round the southern section of **Aston Rowant National Nature Reserve** on **Saturday 5th August**. Sixteen members started out from the Cowleaze Wood car park under dark threatening skies and with a strong north-westerly wind. The route led diagonally down across the very steep south-west facing side of Bald Hill. At the top of the hill were Field and Small Scabious *Scabiosa columbaria*, Greater and Common Knapweed, Large Thyme *Thymus pulegioides*, Wild

Marjoram *Origanum vulgare*, Wild Basil, Bifid Hemp-nettle *Galeopsis bifida* and Agrimony. Further down the hillside were many Gentian spikes which were not yet in flower. There was some debate as to whether these were Autumn *Gentianella amarella* or Chiltern Gentians *G. germanica*, with the majority thought to be the latter. Carline *Carlina vulgaris* and Dwarf Thistle *Cirsium acaule*, Squinancywort *Asperula cynanchica*, Yellow-wort *Blackstonia perfoliata*, Lady's Bedstraw, Eyebright *Euphrasia*, Common Quaking-grass *Briza media*, Fairy Flax *Linum catharticum* and a Frog Orchid *Coeloglossum viride* were amongst the sightings here. Then the clouds moved on, the sun came out and the butterflies started to appear. Silver-spotted Skippers *Hesperia comma* were quite numerous and if they perched in a suitable position, attempts were made to separate the males and females. The females have darker, more contrasting wing edges, while the males have a dark sex brand on the forewing. Silvery-blue male Chalkhill Blue *Polyommatus coridon* butterflies were unmistakable, while the dark brown females had chequered black and white wing margins. Common Blue *P. icarus* and Brown Argus *Aricia agestis* butterflies were also seen here, together with a single Dark Green Fritillary *Argynnis aglaja* and a number of Six-spot Burnet *Zygaena filipendulae* moths. The walk continued through a gateway into the western section of Bald Hill. The lower part of the field was sheltered from the wind, and the carpet of Marjoram was alive with butterflies. Brimstone, Red Admiral, Small Tortoiseshell *Aglais urticae* and Small Heath *Coenonympha pamphilus* were added to the butterfly tally here, while Common Gromwell *Lithospermum officinale*, Clustered Bellflower *Campanula glomerata*, Juniper *Juniperus communis*, Hoary Plantain *Plantago media* and Hawkweed Oxtongue *Picris hieracioides* were amongst the plant sightings. On the walk back, Common Rock-rose *Helianthemum nummularium* and another Frog Orchid were seen.

27th August NT The Holies, Streatley

Jan Haseler led 20 members on a walk around **National Trust [NT]** land at **The Holies, Streatley**, on the hot afternoon of **Sunday 27th August**. The walk started out through a cool stretch of woodland, where Soft Shield-fern *Polystichum setiferum* was noted, and then led out into a large steep field of fine chalk grassland which had been used as a motor-cycle scrambling track in the 1980s. It is still possible to see the outlines of the former scrambling tracks and it was interesting for the botanists to note the differences in vegetation which are still detectable there. Flowers here included Wild Marjoram, Small Scabious, Eyebright, Common Restharrow *Ononis repens*, Common Bird's-foot Trefoil, Wild Basil, Harebell *Campanula rotundifolia*, Dwarf Thistle and Fairy Flax. There were many Meadow Brown *Maniola jurtina* butterflies on the wing, together with a few Small Heaths, Brimstones, Common Blues and a Lesser Treble-bar *Aplocera efformata* moth. The tiny longhorn moth *Nemaphora metallica* was spotted on a Field Scabious flower head. Carline Thistle and Autumn Gentian appeared to favour the former scramble tracks, and Basil Thyme *Clinopodium acinos* and Pale Toadflax *Linaria repens* were found on bare soil patches on one of the scramble tracks. The walk continued on the other side of the valley, where Clustered Bellflower, Yellow-wort and Blue Fleabane *Erigeron acer* were added to the flower count. Many bees and a Small Tortoiseshell butterfly were nectaring on big patches of Devil's-bit Scabious which were just coming into flower. Field Madder *Sherardia arvensis* and Long-stalked Crane's-bill *Geranium columbinum* were growing by the trackway at the bottom of the valley. Some of the group crossed the valley bottom to inspect the enormous seed heads of a number of Woolly Thistle plants. The walk then continued through a gate into the next field of steep chalk grassland. More Basil Thyme flowers were found in cracks in the tarmac of the old zig-zag road which climbs steeply up the hillside. Hoary Plantain, Wild Mignonette and Salad Burnet were seen here. Contouring round the hillside, the first of the Adonis Blue *Polyommatus bellargus* butterflies was found, a stunning turquoise blue male. In all, about 8 male Adonis Blues and 1 worn male Chalkhill Blue butterflies were seen. There were a number of the brown female butterflies, but without good close-up views, it was hard to be certain whether they were Adonis or Chalkhill Blues. A Hummingbird Hawk-moth *Macroglossum stellatarum* flew down the slope, nectaring on various

flowers on the way. Squinancywort and Common Rock-rose were seen here. In the top corner of the field is an area which was cleared of scrub and scraped bare about 10 years ago. It had been recolonised by an interesting selection of chalk grassland plants, including Chiltern Gentian, Pale Toadflax, Bladder Campion *Silene vulgaris* and Devil's-bit Scabious. Another gate led back to the scramble track field. A big Whitebeam *Sorbus aria* here was covered in large still-green berries. On another of the former scramble tracks, a patch with more than 100 Autumn Gentians was found.

9th September Harris Garden, Reading University

Sunny periods and heavy thundery showers had been accurately forecast for the afternoon of **Saturday 9th September**, when 19 members led by Renée Grayer went for a tree walk in the former botanical garden of the **Harris Garden**, **University of Reading**. Renée handed out a list of about 50 tree species that would be seen on the walk. The garden dates from 1975, just after the Botany Department moved from the London Road site to the new Plant Science Laboratories adjacent to the garden. In the second half of the 19th and first half of the 20th century the area had been part of the Wilderness Estate, one of the leaseholds into which Whiteknights had been divided when the Marquess of Blandford, who owned the whole estate, had become bankrupt. The group were shown a number of veteran trees planted in the former Wilderness estate in the 19th century, now tall and majestic, including Swamp Cypress *Taxodium distichum*, Caucasian Alder *Alnus subcordata*, Giant Redwood or Wellingtonia *Sequoiadendron giganteum* and Himalayan Cedar *Cedrus deodara*. There are also huge Turkey Oaks *Quercus cerris* and other species of oak that probably date from the same period. A number of unusual trees had been planted more recently, some dedicated to the memory of university staff and students, including Judas Tree *Cercis siliquastrum*, Wheel Tree *Trochodendron aralioides* and Dawn Redwood *Metasequoia glyptostroboides*. Other trees had been planted for their interesting bark, such as Paper-bark Maple *Acer griseum*, Tibetan Cherry *Prunus serrula* and Hybrid Strawberry-tree *Arbutus* x *andrachnoides*, or for the autumn colours of the leaves, including Sweet Gum *Liquidambar styraciflua*, Persian Ironwood *Parrotia persica* and Tulip Tree *Liriodendron tulipifera*. The spiny trunks of Persian Honey-locust trees *Gleditsia caspica* and spiny leaves of the Monkey-puzzle *Araucaria araucana* were also admired by the group. One area of the garden is dedicated to unusual conifers, including Tiger-tail Spruce *Picea torano*, Serbian Spruce *Picea omorika* and Cedar of Lebanon *Cedrus libani*. An intense thunderstorm with hail and heavy rain sent the group scurrying for shelter under the dense branches of the Himalayan White Pine *Pinus wallachiana*, which bears bundles of five needles instead of bundles of two as found in our native Scots Pine *P. sylvestris*. After the storm had passed, the group looked at two more trees, probably the most interesting conifers in the Harris Garden, which had been planted quite recently. They were the Wollemi Pine *Wollemia nobilis* and Dawn Redwood *Metasequoia glyptostroboides*. Both trees were only known from fossils, millions of years old, and thought to be extinct. Wollemi Pine was discovered in 1994 in the Wollemi National Park in Australia where about a hundred specimens were growing in a few inaccessible steep-sides gorges. Since then the tree has been propagated successfully and distributed to botanical gardens all over the world. Now they are even available in garden centres. Living Dawn Redwood were found in China in the 1940s, but in only one remote valley consisting of just 5,000 specimens left in the wild. This tree has also been successfully propagated and has since been planted widely, especially in China itself.

24th September BBOWT Wildmoor Heath

Michael Keith-Lucas led 10 members on a walk at **BBOWT Wildmoor Heath** reserve on **Sunday 24th September**. While the group were gathering, two Comma butterflies were spotted on the

adjacent vegetation. It was a good day for finding fungi, and a wide variety were seen, including Common Earthball *Scleroderma citrinum*, Fly Agaric *Amanita muscaria*, Brown Birch Bolete *Leccinum scabrum*, Amethyst Deceiver *Laccaria amethystina*, Birch Polypore *Piptoporus betulinus* and a number of different Milkcaps *Lactarius*, Brittlegills *Russula* and Boletes. Heather *Calluna vulgaris*, Bell Heather *Erica cinerea* and Cross-leaved Heath *E. tetralix* were all still in flower. A number of different *Cladonia* lichen species were found below the heather, including a specimen with red fruits and *Cladonia fimbriata*, with cup-shaped podetia. The brightly coloured Yellow Stagshorn *Calocera viscosa* fungus was seen nearby. The walk description had included a recommendation that wellies should be worn, and it soon became clear why this was a good idea, as Michael led the group from tussock to tussock, deep into an area of mire. Species of Sphagnum moss found here included *Sphagnum magellanicum, S. fimbriatum, S. pallustre, S. papillosum, S. inundatum, S. cuspidatum* and *S. capillifolium*. Round-leaved Sundew *Drosera rotundifolia* and the seed heads of Bog Asphodel *Narthecium ossifragum* were also seen. The walk continued on solid ground for a while, before crossing another bog, where White Beak-sedge *Rhynchospora alba* was seen in flower. In the final stretch of woodland, a number of specimens of the fungus *Coltricia perennis* were found. It is a funnel-shaped fungus with pores and the cap has concentric circles, coloured in different tones of cream, yellow and tawny-brown.

21st October Great Wood, Farley Hill

Mike Waterman led 11 members on a fungus walk at **Great Wood, Farley Hill** on **Saturday 21st October.** It was an afternoon of gale force winds, but within the woods conditions were fairly sheltered. While people gathered at the start of the walk, they were able to admire a cluster of about 10 Collared Earthstars *Geastrum triplex* on the bank at the side of the road. Hand lenses were used to look closely at two different Bonnet species. The stems of the Snapping Bonnet *Mycena vitilis* are brittle and made an audible snapping noise when broken. Mike pointed out the tiny cross-veins between the gills on the Common Bonnet *M. galericulata.* Jelly Rot *Phlebia tremellosa* was noted on a fallen trunk. Mike explained the difference between Puffballs, which have neat holes for releasing their spores and Earthballs, which split open. Both Common Earthball and Scaly Earthball *Scleroderma verrucosum* were found. The latter species had a stem-like structure at its base. Amethyst Deceiver *Laccaria amethystina* was found growing in the leaf litter. Its colour changes from a deep purple when wet to a much paler tone when dry. The underside of a Blushing Bracket *Daedaleopsis confragosa* was rubbed to demonstrate that it flushes pink when bruised. Small creamy-white fan-like fungi on a stick were revealed by subsequent microscopic examination to be *Crepidotus cesatii*. A number of Brittlegill species were seen, including the Charcoal Burner *Russula cyanoxantha,* the Ochre Brittlegill *R. ochroleuca*, the pale pink Birch Brittlegill *R. betularum* and the Fragile Brittlegill, *R. fragilis*. A striking glossy bracket on Birch was identified later as the uncommon *Ganoderma resinaceum*. A Stinkhorn *Phallus impudicus* was found, with its cap worn away to a white honeycomb-like surface. False Deathcap *Amanita citrina* was pale yellow, with traces of veil on the cap and a ring on the stem. A drop of latex from the Birch Milkcap *Lactarius tabidus* was put on white paper, where it slowly turned from white to yellow. Later, a specimen of the Grey Milkcap *Lactarius vietus* was found, whose milk dries dark on the gills. A specimen of the Lurid Bolete *Boletus luridus* was cut in half and it then quickly turned a greenish blue. Later in the walk, a Brown Birch Bolete was cut in half, and this time the pores remained a creamy white. The Grooved Bonnet *Mycena polygramma* had a relatively long fluted stem. A series of short irregular black lines on a Bracken stem were the Bracken Map *Rhopographus filicinus*. Pale Oyster Mushrooms *Pleurotus ostreatus* were growing out of a fallen tree trunk. On the way back to the cars, Mike pointed out the gas tar smell of the Sulphur Knight *Tricholoma sulphureum*.

26th November BBOWT Bowdown Woods

Roger Dobbs led a walk at **BBOWT Bowdown Woods** reserve, north of **Greenham Common**, on the clear, cold afternoon of **Sunday 26th November**. Nine members gathered at the Bomb Site car park before heading out to an enormous old Sweet Chestnut *Castanea sativa* stool in the woods on the northern side of the Bomb Site. Originally a single specimen, it is now a ring of five big multi-stemmed trees. The route then led into the open area at the centre of the Bomb Site. It had originally been open heathland, but had become covered with dense oak and Silver Birch *Betula pendula*. Many of the trees have now been cleared, leaving an open area of grass, heather and scrub. Highland cattle, Dexter cows and ponies have all been tried for keeping the scrub down, but none had proved satisfactory – they just ate the grass and avoided the scrub. So now the area is either mown or brush-cut to control the vegetation. The walk continued into the former Baynes Reserve, emerging at the top of a ridge overlooking a long valley with a clearing below power lines. The steep south-facing slope below the ridge is regularly cleared, making ideal sunny butterfly habitat. The path dropped steeply down to the valley bottom, where a Southern Bracket *Ganoderma australe* was found on an Alder stump. On the far side of the valley were tall multi-stemmed Alders. Roger explained that the grass in the valley bottom is cut each year on alternate sides. While he was talking, a Vole was spotted, running through the grass. Further down the valley, the woodland on the northern slope is being actively managed for Hazel Dormice *Muscardinus avellanarius*. Hazel in the first section was coppiced a few years ago and is growing back strongly. The second section has big old Hazels which have not been cut. Several had nest boxes attached between 1 and 2 metres above the ground, with the entrance hole at the back against the tree trunk. In total, about 70 Dormouse boxes have been put up across the reserve. The third section was very wet, and had sparse recently coppiced Hazel. The fourth section has not been cut yet. Both the Beautiful *Calopteryx virgo* and Banded Demoiselles *C. splendens* and Golden-ringed Dragonflies *Cordulegaster boltonii* are regularly seen in the valley. A Raven *Corvus corax* flew calling overhead. The route then led back up the steep valley side, where a wide south-facing ride had recently been cleared. Leaves of Sanicle, Wood Spurge and Yellow Archangel were found here. Towards the top of the hill was a flat grassy terrace with a pond where Smooth *Triturus vulgaris*, Palmate *T. helveticus* and Great Crested Newts *T. cristatus* can all be found. In summer, Common Spotted-orchids are abundant here and solitary bees use the exposed sandy bank at the back of the terrace. The path led back up to the main track round the Bomb Site. The low wall and containing banks of a former bomb storage area can still be seen. The track led to an open area where Grayling *Hipparchia semele* butterflies have sometimes been seen and a row of Oaks where Purple Hairstreaks *Favonius quercus* are regularly found. The light was beginning to fade when the group returned to the car park.

MID-WEEK WALKS 2017 by Jan Haseler, Ken White and Sarah White

18th January Upper Basildon

Susan and Peter Twitchett led a circular walk on **Wednesday 18th January**, on a day of bright sunshine and hard frost,which started from the car park of the Red Lion pub at **Upper Basildon**. Nine members set out along the recently-resurfaced path from the Primary School to the Village Hall. Beside the path, Red Dead-nettle and Groundsel were in flower, while a plant with shiny hairless green leaves puzzled the botanists; close inspection and the use of plant keys in the pub at the end of the walk revealed that it was Annual Mercury. The walk continued steeply down through woodland to Hook End Lane, where the first of 3 Stinking Hellebore plants was in flower. The next footpath led up towards the Royal Berkshire Shooting School at Tomb Farm, where the second Stinking Hellebore plant was found, then continued first along a sunny field boundary, then through Hazel coppice. Dog's Mercury was coming into flower and the first Bluebell leaves were spotted. Growing out of a tree stump was a shiny orange cluster of the fungus *Flammulina*

velutipes. Catkins were out on the Hazels and about 25 Fieldfares were seen in a nearby field. The walk continued past Grim's Ditch and down a shallow valley, before turning sharply back towards Drift Farm, where the third Stinking Hellebore plant was found. On a bank by the farm were Snowdrops, with a few specimens in flower. The group then headed back to the Red Lion for lunch.

15th February Aldworth, Berkshire Downs

Julia Cooper and Ian Duddle led 8 members on a circular walk across the Berkshire Downs, starting from Starveall above **Aldworth,** on **Wednesday 15th February**. Spurge-laurel plants were in flower beside the first stretch of track, as was Common Field Speedwell in a nearby field. Rosehips were the only berries in the hedges – the Hawthorn berries had already been stripped. A flock of about 25 Corn Buntings was calling from bushes at the side of the track. There were also good numbers of Yellowhammers and Chaffinches and Skylarks were singing overhead. The adjoining field was lying fallow, with abundant seeds from clover and other plants. Sections of bank beside the track had leaves of Salad Burnet, Common Rock-rose and Wild Thyme. A little further on, Julia explained that the sheep in another field were eating stubble turnips. These are drilled into the stubble, without ploughing, after the grain has been harvested. The resulting turnips are quite small. The sheep were eating them down to ground level and their dung was also helping to fertilise the field. The route back looped round Lowbury Hill, passing a string of 11 young race horses which were being walked gently along the track. A Buzzard flopped down from a fence post to the ground and then flew to a more distant fence. In the grassy field above Juniper Valley were 2 Roe Deer and big flocks of Starlings and Fieldfares. The next stretch of track climbed steeply between high banks. A magnificent old Beech beside the track had 18 different trunks leading up from its base. The walk had started in mist. As it progressed, the cloud lifted somewhat and views extended, then in the last stretch, the forecast rain band arrived – time to retire to the Bell at Aldworth for lunch.

15th March Whitchurch on Thames

On the sunny and warm morning of **Wednesday 15th March**, Ian Esland led a circular walk to the west and north of **Whitchurch Hill**, starting from the Sun Inn. While the 11 members were gathering in the car park, a Buzzard climbed upwards in a tight spiral, two Great Spotted Woodpeckers flew into nearby trees and nesting Rooks made a great deal of noise. The walk started out along footpaths to a viewpoint over the valleys of the Thames and Pang. Early Dog-violet and Lesser Celandine were flowering beside the path and Skylarks, Chiffchaffs, a Bullfinch and a Treecreeper were heard. The route led by further footpaths to Coombe End Farm, where the first Brimstone butterfly flew past. From then on, it seemed as if most hedgerows had patrolling Brimstones. Initially they were all the sulphur yellow males, but later a few paler females were also seen. Red Admirals were spotted in the gardens at Cold Harbour and later a Comma was added to the tally. The walk continued down to Blackbird's Bottom, across the fields of the Oratory School and into Oaken Wood. Young green Bluebell leaves were showing well and a Marsh Tit was heard. Footpaths through woods and fields led back to Whitchurch Hill, where a Sallow covered in blossom was a magnet for bees. The walk was followed by the usual excellent lunch at the Sun Inn.

19th April Hermitage

Rob Stallard led 18 members on a walk which started from the Fox Inn at **Hermitage** on the sunny

but cool morning of **Wednesday 19th April**. A footpath across the road from the pub led up onto Oare Common, where there were big old Birch and Holly trees, and Oaks with spreading form that indicated that they had started life in a more open, less wooded, landscape. Wavy Bittercress was in flower in a damp patch, there were flowers on the Solomon's-seal plants and the first butterfly of the day, a Holly Blue, was spotted. A tall mystery plant beside the pond in the village of Oare defeated the botanists. Bright orange eggs of the Orange-tip butterfly were spotted on some of the Cuckooflower plants and spikes of horsetails were emerging form the damp ground around the pond. The walk continued over the motorway and then along a track through farmland, where several Small Tortoiseshell and Orange-tip butterflies were seen. The woodland around Oareborough Hill was carpeted with Bluebells. Other flowers seen here included Moschatel, Greater Stitchwort, Opposite-leaved Golden-saxifrage, Wood Speedwell and Three-nerved Sandwort. The ancient trackway of Old Street runs between high banks through the Oareborough Hill woods and continues south-eastwards. There were many big old multi-stemmed trees on the banks, including an enormous Wych Elm with apple-green seed clusters. Blackcap and Garden Warbler were heard, and Brimstone, Green-veined White, Speckled Wood and Red Admiral were added to the butterfly tally. The route led back across the motorway, through Oare and back towards Oare Common. On a bank in front of a house were Primrose, Goldilocks Buttercup, Slender Speedwell and a rosette of Common Spotted-orchid leaves. A footpath across the Common led to the densest Bluebells of the morning, together with Wood Anemone, Pignut leaves and several apple trees which were covered in blossom. The path crossed a field and came out at the bottom of Doctors Lane, where Tansy, Star-of-Bethlehem and Leopard's-bane were growing on the bank. After walking through a section of Hermitage, the next footpath followed the old railway line. Wood Spurge and Brimstone, Peacock and Holly Blue butterflies were seen here. The walk was followed by lunch outside in the sunshine at the Fox Inn.

17th May Beenham

John Lerpiniere led 12 members on a walk which started from the Six Bells at **Beenham** on the wet morning of **Wednesday 17th May**. First stop was the wildflower meadow of Adrian and Barbara Stacey, which was yellow with Meadow Buttercups, together with Common Sorrel and a few pink flowers of Ragged Robin. A Grass Rivulet moth was found here. The walk continued through the adjoining Greyfield Wood, whose lease is owned by a large number of villagers, including Adrian and Barbara. Adrian told the group about the on-going management of the wood. Flowers found at the start of the walk round Greyfield Wood included Yellow Archangel, Bush Vetch, Sanicle, Bugle and abundant Bluebells. Also seen were Wood Sedge and the leaves of Betony and Wood Sorrel. A black and orange Sexton Beetle was found next to the carcass of a Blackbird. At the bottom of the wood were about 40 Early-purple Orchids, including some tall specimens. Yellow Pimpernel and Wood Spurge were added to the list of sightings here and a rather ginger-toned Toad was spotted. The walk continued back up through the wood to an enormous and very old multi-stemmed Ash. Red Currant bushes nearby had unripe fruit. Two massive Dryad's Saddle fungi were growing on a tree by the path. In an open stream valley, Silver-ground Carpet and Common Carpet moths were spotted, then pink globules on a rotting tree stump were identified as the Wolf's Milk Slime Mould. Towards the top of the woods, a number of Pignut plants were found. Rainwater flowing down a Sweet Chestnut trunk was forming first bubbles, then blobs of foam. John pointed out the leaves of a Hazel which had been partially cut through and rolled up by the Hazel Leaf Roller beetle. Lunch followed at the Six Bells.

21st June BBOWT Warburg, Bix Bottom

Sally Rankin led 14 members on a walk at BBOWT's **Warburg Reserve** at Bix Bottom near Henley

on the very hot morning of **Wednesday 21st June**. Before the walk started, warden Giles Alder showed 3 big hawkmoths from the previous night's moth-trapping at the reserve – a Privet, an Elephant and a Poplar Hawkmoth. A Garden Warbler was singing nearby and young Tawny Owls were heard calling. Along the open rides, Pyramidal Orchids were at their best and there were numerous butterflies on the wing, including Silver-washed Fritillary, Marbled White, Meadow Brown, Ringlet and Large Skipper. The walk started steeply up towards **Maidensgrove Scrubs** to look at a number of Herb Paris plants. Continuing along Great Hill Ride, then down and across the valley, next stop was a fenced-in enclosure where Narrow-lipped Helleborines (not yet in flower) were being protected from browsing deer. Further on, in deep shade under spreading Beech trees, were the pale heads of Yellow Bird's-nest. A fenced-in section on the valley side had more Herb Paris. Solomon's-seal was also found here, with its leaves being eaten by sawfly larvae. Crossing back across the valley to Big Ashes Ride, sightings included Common Rock-rose, Yellow-wort, Common Gromwell, Fairy Flax and Common Twayblade. A steep climb up Hatch Lane passed Broad-leaved Helleborine and Spurge-laurel plants to a spot where Green Hound's-tongue was growing beside the track. The walk was followed by lunch at the Rainbow in Middle Assendon, where the cool interior of the pub gave a welcome respite from the day's heat.

19th July Turville

Rob Stallard led a circular walk starting from the Bull and Butcher pub at **Turville** on **Wednesday 19th July**. It was a mild and humid morning, following an evening of torrential thunderstorms. 9 members set out up the lane through the village, then turned left onto a footpath up the side of a field. Several tall plants of Stone Parsley were growing at the field entrance and in the field margin were a number of interesting arable weeds, including Dwarf Spurge, Small Toadflax and Sharp-leaved Fluellen. Clumps of Wild Marjoram on the other side of the path harboured Common Blue butterflies and a single Small Copper. Higher up the bank were flower spikes of Dark Mullein and on one of these, 2 caterpillars of the Striped Lychnis moth were spotted. The route then led up through Churchfield Wood, where Nettle-leaved Bellflower, Hairy St John's-wort, Gooseberry and Wood Barley were amongst the sightings. The next footpath contoured through Idlecombe Wood, with distant views across the valley. Deadly Nightshade and Spurge-laurel were found here. The walk continued down through a grassy field with abundant Wild Marjoram, Common Toadflax and Dark Mullein, across the lane at the bottom, along a track with more Wood Barley and the bright orange fruiting spikes of Lords-and-Ladies and across a grassy field, where a tiny centaury plant with a small, dark pink flower was thought to be Lesser Centaury. Next stop was the privately-owned Gray's Lane Bank nature reserve. Flowers here included Clustered Bellflower, Yellow-wort, Carline and Dwarf Thistle and Ploughman's-spikenard. Close inspection revealed that the abundant thyme plants were Large Thyme. Their 4-sided stems had long hairs at the corners, the leaves were slightly folded upwards and the stamens protruded significantly from the flowers. The route continued to **Ibstone Church**, down a steep section of lane, then along a footpath below a wood, where Vervain, Wild Mignonette, Common Rock-rose and Pale Toadflax were seen. The final section of the footpath crossed the grassy field below the Turville windmill. Pyramidal Orchids, a little past their best, were still in flower at the bottom of the field. The walk was followed by lunch at the Bull and Butcher.

23rd August Blackwater River, Bramshill

On **Wednesday 23rd August**, mud and puddles greeted the 17 members who met for a walk, led by Ken and Sarah White, through the northernmost edge of the **Bramshill Forest** plantations and along the flood meadows of the **Blackwater River**. The recent rains had refreshed a lot of the vegetation and many species were found bearing flowers. The walk started on the south side of

the river on the acid Quaternary sands and gravel, a site of former gravel extraction which ended about 25 years ago. Mature Scots Pine along the boundary has given way to new successions of pioneering plant communities which raced to fill the formerly bare ground and lake edges. Some conifer planting occurred, though much of the regrowth seems to have been from wind-blown seed. Ling, Bell Heather and Gorse dominate the ground, but in between these, patches of Dwarf Gorse in full flower contrasted beautifully with the mixed pinks of the heathers. The rides and pathways offered herbaceous interest in the way of Corn Mint, Brooklime, three plantains (including *Plantago coronopus)*, Common Centaury, Blue Fleabane, Hare's-foot Clover and Slender Rush *Juncus tenuis*. Large swathes of Common Fleabane kept the yellow-flower theme going. Forestry plantings included not only 6 species of conifer but also some Black Locust *Robinia pseudoacacia* and Southern Beech *Nothofagus* sp. Various fungi were breaking through the ground but the best by far was a textbook Parasol Mushroom *Macrolepiota procera*. The final calcifuge was Alder Buckthorn, now bearing some black fruits.

As we approached the footbridge back over the river, flowering Common Hemp-nettle attracted a lot of attention, as did the Greater Celandine and a white flowering form of Selfheal, but for the first members on the bridge a fast disappearing Kingfisher made a quiet approach worthwhile. Orange Balsam studded the riverbank water's edge, and surprising numbers of Banded Demoiselles flitted up and down the gently flowing Blackwater River. A superb Southern Hawker was photographed not far from the river. We then passed through numerous horse-grazed meadows, and the damp London Clay soils here yielded a continuous margin of willows and Alder; other marginal plants included Gypsywort and Himalayan Balsam. The clay fields to the north of the river are mixed with sands from the Tertiary capping on Farley Hill which has resulted in a rich sandy loam. The first field was a dense sward of flowering Italian Rye-grass *Lolium multiflorum,* previously cut for silage earlier in the season, but growing back strongly; a specimen of Dwarf Mallow was growing on the footpath edge. The next three fields had very recently cut and harvested Lucerne [Alfalfa] ssp. *sativa* which had attracted the attention of at least 11 Red Kites and an amazing flock of 60 Pied Wagtails, a mix of adults and juveniles. The Lucerne field margin along the footpath had been missed by the cutters, and was a delight to investigate: Bugloss in full flower alongside Field Pansy and the odd Common Poppy. The ancient ford crossing the Blackwater – used by the Roman Road linking London and Silchester – was a daunting prospect to wade through at 2.5 feet deep, so the footbridge just a bit further on was much appreciated and provided the walk's second Kingfisher. The group tail-enders had to make do with a fine stand of Common Club-rush, and the wailing of two young Buzzards overhead learning to fly with their parents in what had become a bright and breezy day. After the walk, most of the party stayed on for lunch at The Bull at Riseley.

20th September Swyncombe

Jan and Laurie Haseler led a walk starting from **Swyncombe** Church on **Wednesday 20th September**. The leaves on the Horse Chestnuts beside the track from the church were brown from the leaf miner damage, contrasting with the green foliage on all the other trees. Ten members set off down the valley, through a short stretch of woodland and then out into arable fields. A Thorn-apple plant with both flowers and a spiky seed head was an unfamiliar sighting. A section sown with bird seed had tall flowers of Perennial Sow-thistle growing in front of maize, attracting both Large and Small White butterflies. Kestrel, Red Kite and Buzzard were all seen here. The next field had an interesting collection of arable weeds growing in the margin, including Dwarf Spurge, Scarlet Pimpernel, Field Madder, Black-bindweed and Field Pansy. Skylarks were singing high overhead. The walk continued across another arable field, along a short stretch of road and then steeply up through woodland to Swyncombe Downs. There was a profusion of Wild Candytuft, mostly in flower but also with patches of its distinctive seed heads. Other flowers here included Dropwort, Pale Toadflax, Harebell, Common Rock-rose, Stemless Thistle, Wild Thyme, Small

Scabious and Wild Mignonette, A Small Copper butterfly was nectaring on Wild Marjoram. The views from the top were superb, stretching from Aston Rowant to the north-east, across much of Oxfordshire and even as far as the distant line of the Hampshire Downs. A small party of Swallows flew southwards over the ridge and a pair of Ravens flew overhead. The route continued eastwards along the ridge. Whitebeam, Buckthorn and Dogwood were all covered in berries. An open grassy section had abundant Pale Toadflax, Devil's-bit Scabious and a few Juniper bushes. The track joined the Ridgeway, climbed steeply up through woodland and then dropped down the other side, before the final climb back up towards Swyncombe Church. Several flower spikes of Dark Mullein were seen here. Most of the group then went on to the Shepherd's Hut at Ewelme for a relaxing lunch.

18th October Mortimer

Maggie Bridges and Marion Venners led a walk round **Mortimer** on the damp grey morning of **Wednesday 18th October**. The walk started from the Fairground Field and 10 members headed southwards along a footpath behind the houses. Soft Shield-fern, Hart's-tongue Fern and Male Fern were all found growing on the shady side of a deep ditch next to the path. The footpath then crossed arable farmland, with Field Pansy and Redshank in flower beside the path. The route continued along a quiet lane, with Black Bryony berries and Robin's Pincushion in the hedgerow at the side. A big flock of Chaffinches flew down into a neighbouring field. The next footpath led through a grassy field, following the West End Brook to its junction with the Foudry Brook. There were abundant sloes in the hedgerow here. The water level was very low in the brook. Betony was in flower on the bank next to the stream and Common Knapweed was flowering in the middle of the field. Two Goldcrests were spotted in a tree beside the path and a flock of Goldfinches were seen in a big Oak. There was a very big Field Maple beside the path and an Oak across the brook had a Beefsteak Fungus growing out of its trunk. The route led past the church, then circled back westwards towards Wheat's Farm. A Speckled Wood butterfly was spotted sheltering down in the grass and Hedge Woundwort, Common Toadflax, Sharp-leaved Fluellen and Marsh Cudweed were added to the plant tally. A family of Pied Wagtails were perched on the fence between 2 horse paddocks. The footpath continued past a row of Lime trees, along a hedgerow where Field Rose was still in flower and through a wood of Holly and Birch, with Common Earthballs and a troop of greyish coloured fungi. The path emerged by the far corner of the Fairground Field, where orange, red and white Wax-caps and Yellow Club fungi were found and Devil's-bit Scabious and Tormentil were in flower. The walk was followed by lunch at the Horse and Groom in Mortimer.

15th November Benyon's Inclosure

The autumn colours were close to their best when Jan and Laurie Haseler led a walk at **Benyon's Inclosure** near **Silchester** on the misty morning of **Wednesday 15 November**. Starting from the southern end of the woods, 13 members set out northwards along a gravel track through a pine plantation. Bilberry plants below the pines had a good crop of berries. The track dropped steeply down towards a stream and the route continued along a path which followed the side of the valley. There were big clumps of Hard Fern and a few specimens of Lady Fern. Two flies were mating on the dark slimy cap of a Stinkhorn which was growing beside the path. The stream flowed into a lake with a resident flock of Mallards. On the return part of the walk, a Grey Heron flew up from the waterside and a Cormorant was spotted roosting in a tree above the water. The walk continued along the eastern side of the woods, climbing steeply over a ridge, dropping down to an orange stream and then following a gravel track northwards. Various fungi were spotted, including an attractive specimen of Plums and Custard, a pale pink *Russula* and a group of striking

black fungi with white gills which were identified as some sort of *Melanoleuca* species. The yellow jelly fungus *Tremella aurantia* was found, parasitizing the brackets of Hairy Curtain Crust *Stereum hirsutum,* which in turn were growing on cut logs. A little way back from the edge of the track was a deep pit, which exposed the different layers of gravel to a depth of several metres. The Silchester Gravels were laid down about 450,000 years ago, around the time of the maximum extent of the ice sheets across Britain. Different layers of gravel had different sized stones in different coloured substrates. Work has recently started on a new area of gravel extraction in the north-west corner of Benyon's Inclosure. The site was surrounded by a knee-high, solid fence. Apparently an ecologist has been working in the area, removing amphibians and reptiles, and the fence is there to prevent them returning to the danger zone. The next path led along a drier and more open section. A few Bell Heather and Ling plants were still in flower and tufts of Purple Moor-grass were an attractive golden-yellow colour. Further on, a Muntjac deer crossed the path. The route then returned to the main stream valley. Down on the valley bottom were enormous clumps of Greater Tussock-sedge. A flock of Redwings were feeding on the abundant crop of Holly berries in the woods. After passing the lake again, the route ran along a stretch of hedge-lined lane before leading back into the woods. Pale leaves on the ground came from a Whitebeam, a surprise find in such an acid location. Finally, Long-tailed Tits, Coal Tits and Goldcrests were amongst a mixed flock of small birds in the trees near the end of the walk. Everyone then continued to the Calleva Arms for lunch.

6th December Sheffield Bottom, Sulhamstead

On the grey, mild and calm morning of **Wednesday 6th December**, thirteen members gathered in the car park of the Fox and Hounds, **Sheffield Bottom, Sulhamstead** before setting off to the adjacent **Hosehill Lake** LNR on a walk led by Ken and Sarah White. A good presence of Pochard, mostly males, was just as well, for apart from the odd Grey Heron there was not much on the water. Blackbird and Song Thrush lurked in the scrub, and Great Spotted Woodpeckers "chipped" from the tree tops. We progressed westwards into Bottom Lane, and along the southern edge of Woolwich Green Lake; this had a lot of Coot - always a good indicator that there will be other interesting birds present. This proved to be the case with more than 20 Shoveler roosting on the far side, and in between a spread of over 35 Wigeon feeding on floating aquatic vegetation, interspersed with Tufted Duck and the occasional Great Crested Grebe. A late-flowering Wild Angelica caught the eye on the ground while Goldcrest and Treecreeper flitted about overhead in the Alders. We continued along Bottom Lane at the foot of a coppiced Ash and Hazel hangar, a perimeter of the Thames Valley Police Training College. Patches of Wood Spurge and *Dryopteris* sp. are the last vestiges of the ground cover as the now overgrown coppice has canopied overhead, with re-coppicing sadly long overdue. As we turned off the lane and headed north across the flood meadows, a cottage garden was full of Redwing and Fieldfare – all busy stripping off the red berries on a large mature *Cotoneaster.* We watched a flock of 8 Egyptian Geese fly overhead, a distant Mistle Thrush was singing, Goldfinches adorned the tops of Alders feasting on the seeds, a female Sparrowhawk circled and glided off, and an occasional Red Kite flapped by. Waxy red Guelder-rose berries were seen in the hedgerow beside the towpath of the Kennet and Avon Canal and the sun briefly shone through a break in the blanket cloud. The next source of interest was the second Bottom Lane gravel pit, the Fisherman's Lake. Although it is now screened off with a sturdy wire fence, we still managed to find a good number of smartly plumaged Gadwall, and on the far side of the lake there was a trio of rather dapper Red-crested Pochard; 2 males with their ginger-coloured shaving-brush hairdos escorting a rather plainer plumaged female. Some late flowering Bramble was of particular note on the way back, as were brief views of a Marsh Tit for the tail-enders which rounded off a final tally of 47 bird species! A 2nd Sparrowhawk, this time a male, rewarded the early arrivals back at the pub car park, overall a pretty good haul for a local morning stroll. The walk was followed by lunch at the Fox and Hounds, which kindly allowed us to use their car park in return for patronising their establishment.

INDOOR MEETINGS 2017 by Renée Grayer & Rob Stallard

3rd January

Safeguarding the future of chocolate by Professor Paul Hadley, University of Reading

Who would have imagined that Reading plays such an important in the world of chocolate? Professor Paul Hadley's talk explained what the tropical **Cocoa** plant is doing in the middle of Berkshire. The plant Cocoa *Theobroma cacao,* family Malvaceae, is a rather unusual tree; it needs high temperature and humidity but growing as understorey it also needs a low light level,. It flowers all year round and is pollinated by midges, with the flowers and fruit growing directly from the trunk. The familiar cocoa flavour is developed when the fruit is harvested, fermented and then dried.

The plant comes originally from the western part of the Amazon rain forest and was cultivated by the Aztecs, it was then grown in Central America (Guatemala, Venezuela). In 1857 it came to Ghana, Africa and then in 1980 to tropical parts of South East Asia. Currently 70% of the cocoa comes from Africa but with ever increasing quantities from Asia. The vast majority of the crop is grown by subsistence farmers on small plots using manual cultivation methods.

For 35 years Reading University has developed improvements to cocoa farming. The Reading facility holds a large quarantine stock of plants. There are plant diseases such as witches broom disease that could devastate other regions if plants were sent directly from infected regions. Glasshouses near Arborfield keep plants for months and check they are disease-free before onward shipment. The cocoa plants are grown hydroponically in carefully controlled conditions. The key advantage of the UK location is that cocoa's pests and diseases are unable to survive our climate. Reading also studies the many varieties of cocoa and holds a germplasm database of 29,500 specimens. By using climate controlled glasshouses the team can study vulnerability to disease and relative vigour.

The Reading team work with the farmers, mainly in Ghana, with the aim of improving cultivation methods and replacing old trees with better varieties. With fertilizers a three times boost in yield can be easily achieved. They have also found that virtually any form of mulch greatly improves crop yields.

A recent study by the group had looked into the effects of increased concentration of CO_2 in the air. It showed that cocoa plants are more productive and are more efficient in use of water which enables them to better withstand drought stress. Different varieties show varying effects and so the programme will hope to identify those most suitable to cope with climate change.

17th January

Unravelling the story of an alien invader - the Harlequin Ladybird

by **Professor Helen Roy,** CEH

Helen Roy works at the Centre for Ecology and Hydrology, Wallingford, and is a visiting professor at the University of Reading. On 5th October 2004 there was a press release that *Harmonia axyridis*, "the most invasive ladybird species on earth", had arrived in Britain. The media reported the arrival of this **Harlequin Ladybird** in such a sensational way, that the general public quickly became aware of its arrival and many people began to submit records of sightings. This resulted in an enormous increase in contributions to surveys of ladybirds in general, so in that respect it was not a bad thing.

The Harlequin Ladybird originally comes from Asia, but the Ural Mountains acted as a barrier to its spread westwards. However, in the 1980s they started to spread in America and some countries of Continental Europe after they had been introduced as a biological control of aphids. Harlequin Ladybirds reproduce much faster than our native ladybird species, because they can have three generations in a year and each female can lay up to 1500 eggs during her life time. Our native species on the other hand have only one generation each year and need to overwinter

before they become sexually reproductive. When Harlequin eggs hatch, the first instar larvae are greyish and look quite harmless, but later instars look gruesome. Fully grown larvae are black with an L-shaped band of orange-yellow forked spikes on each side of the abdomen and four additional spikes arranged in a square on top of the abdomen. When they pupate these spines are often still visible. Harlequin ladybirds and their larvae are voracious predators of aphids and our native 2-spot and 7-spot cannot compete in that respect. But Harlequin Ladybirds also eat harmless insects, **including the larvae of our native ladybirds**. When there are no insects to feed on they may eat fruit such as grapes and become a pest themselves.

Ladybirds overwinter as adults and Harlequins can do that in beehives, on window frames and even in bell towers. They spend the winter in large groups, often in the same place each year, despite the fact that they only live for one year. It is assumed that they leave a strong chemical scent on their overwintering locations, so that the next generation can smell the scent and congregate there. The Harlequin Ladybird is more polymorphic than most native species. They are often black with orange spots or orange with black spots, but they can also have different colours and markings rather than spots. They are usually bigger than most native species, have pale legs, a ridge across the back and round white markings at the front of their pronotum, which look a bit like the headlamps of a car. Those white marking are also present on some native species, which can also be quite large, so it is not easy to be sure whether a ladybird is a Harlequin or a rare native British species.

The website for recording ladybirds, including the Harlequin, is www.ladybird-survey.org and is very popular. It is also engaging, inspiring and fun for children to participate in the surveys. The general public has generated "big data" and there are already more than 200,000 records on the database. The almost exponential increase in the number of Harlequin Ladybirds has caused a sharp decline in the native ladybirds in Britain and Continental Europe. The 2-spot Ladybird did well until the Harlequin arrived and since then there has been a 44% decline, strongly correlated with the increase in Harlequins. Climate change also seems to affect the native species more. The Harlequin Ladybird can fly long distances and has now spread over the whole world, even to New Zealand; however, it behaves differently in different places.

7th February

Rare arable wildflowers and their preservation in the modern agricultural landscape

By **Dr Markus Wagner and Karolis Kazlauskis,** Centre for Ecology and Hydrology, Wallingford

Dr Markus Wagner is a plant ecologist at CEH. He began his talk with a whirlwind history of farming in the UK. In the Neolithic, farmers (c. 10,000 BCE) started clearing the forest and planted early 'wild' varieties of wheat and barley. By the Bronze Age the population was more settled and flax started to be grown so linen cloth could be made. The availability of iron axes in the following Iron Age made woodland clearance easier and a wider range of cereals were grown. When the Romans came on the scene farming was more organised with a considerable proportion of the native forest already cleared. The Romans brought new crops with them including onions, leeks, walnuts, sweet chestnuts, apples, grapes and cherries. In the Middle Ages crop rotation and a ploughing regime were instigated; the plough headlands and gores were left to wildflowers. Deeper ploughing saw the replacement of perennial weeds with annual weeds such as Corn Marigold and Corncockle. Soon many wildflowers were restricted to river banks, lake shores and woodland margins. Some 'weeds' such as fat hen and onion couch grass continued to be harvested for food. New annual flowers were spread by their seed being harvested and sown along with the crop seed. After about 1,500 CE Green Nightshade and Common Amaranth had inveigled themselves into the crop seed and spread widely. Annual Vernal-grass came in the late 17th century but now is very rare. By the 1920s chemical controls were being used to control arable weeds, at one time a 10% solution of sulphuric acid was used to kill off buttercups. 'Crop mimics' benefited from the more intensive methods, in a crop mimic the seed is very similar to the crop and ripens at the same time. Corn Cockle, Rye Brome, False Flax and Corn Spurrey are examples of mimics. The next stage was intensive farming with a high degree of mechanisation combined with greater land utilisation (less unused ground) and the widespread use of herbicides

and fertilisers. More vigorous crop varieties could easily out-compete weeds. 'Crop mimics' became much less common. The emphasis was on high yields with massive inputs of inorganics. All this resulted in 28% of arable weeds making it onto the red list of endangered plants. The arable weeds became restricted to small, isolated areas that were not farmed as intensively. There are however a few weeds that can still compete including Barren Brome, Cleavers, Black Grass, Creeping Thistle and Spear Thistle.

Markus then tried to answer the question as to whether arable weeds needed conservation. Most of the arable weeds are non-native and may have healthy populations in their native regions. Studies show that arable weeds will gradually return if traditional non-intensive methods are restored. On the other hand the plants provide food for farmland birds and the flowers food for pollinators which are both useful for the farmer. There are also general ecological considerations including amenity, cultural (e.g. poppy field pictures) and biodiversity. Some plants produce useful essential oils. If they disappear then thousands of years of selective adaptation to arable husbandry would be lost.

There are a variety of ways that arable weeds can be conserved. Field margins can be left unsown (but they need to be ploughed), special reserves can be managed (although only very poor land is made available for this), plants can be specifically grown and the seed collected and distributed. Two particular schemes have been studied at CEH: conservation headlands (CH) and un-cropped cultivated margins (UCM). CH have been popular with farmers as they can be used to provide food for game birds, the areas at the tops of fields are not harvested and ploughed in Spring and very little weed control is utilised. UCM requires the land to be cultivated but not sown; but the areas need rotating otherwise undesirable weeds build up over time.

A series of experiments were funded by DEFRA to see the effects of different types of management that include CH and UCM. Sites in Somerset, Hampshire and Norfolk were chosen to compare clay, chalk and sandy soils respectively. Variables such as cultivation depth, herbicide usage, fertilizer usage and gramicide usage (selective grass herbicide) were applied over a patchwork of blocks on the sites. The overall results show that :

[A] ploughing was better in spring rather than autumn for the arable weeds, but without using herbicides undesirable weeds built up, showing that the use of gramicides had the most benefit.

[B] non-grain crops such as sugar beet, rapeseed and potatoes are generally better for the weeds.

[C] in terms of arable weeds within the crop, the use of nitrogen fertilisers has a deleterious effect on them.

[D] the growing of spring rather than autumn crops was better for the weeds.

Markus believes that better involvement with farmers is crucial; some of the schemes are too complicated or too labour intensive for them to be carried out correctly, and they need to be encouraged to realise that the benefits are not just for birds.

Markus's colleague Karolis Kazlauskis then took over to demonstrate the use of a new app for smartphones. The **Rare Arable Flowers app** is available from http://www.ceh.ac.uk/citizen-science-apps and lets anyone record the location of 272 rare arable weeds into the CEH **iRecord** database. The app has photographs, illustrations, distribution maps and notes to help users identify the plants. The location, number of plants and other details are entered and then with an optional photograph sent for permanent storage within the iRecord database.

Using the application should enable keen naturalists to build up an accurate picture of where the rarer arable plants can still be found and so aid their conservation.

21st February

Cultured birds? - Social networks and foraging traditions in Great Tits

by **Dr Keith Mahon,** Edward Grey Institute, Oxford University

Keith Mahon studied zoology at Trinity College, Dublin, where he also did his PhD, and is now a research assistant at the Edward Grey Institute, Dept. of Zoology, University of Oxford.

Much of the research on the behaviour of Great Tits *Parus major* is carried out in Wytham Woods, an area of 375 hectares of woodland north west of Oxford and owned by the University. The long-running study of Great and Blue Tits was started here by David Lack when he erected nest boxes in the winter of 1946/47. By 1963 there were already just over a thousand nest boxes and now there are 1150 (the maximum number, but old and broken ones are replaced). More than a dozen field workers regularly check the boxes for occupation.

At present there are more than 6,000 adult Great Tits in the woods with known parents. The annual survival rate is approximately 45% and the mean generation time is 1.8 years. Most Great Tits breed in their first year and breed again if they survive the winter, but less than 1% survive to 6 years. When both male and female partners survive, they do not always pair up again. 35% of the pairs will "divorce" and choose a different partner in the next year. One egg a day is laid from early April onwards. In Britain, Great Tits only have one clutch a year, whereas on the Continent they may have two or more clutches. Each egg weighs 10% of the female's weight, and the clutch size varies from 5 to 14 (mean 8.2 eggs). They lay fewer eggs when they are young or old. Eggs hatch after 12-20 days and are incubated by the females only, but the males help feeding the chicks. These grow very rapidly and quickly reach the body weight of the parents. They fledge at about 20 days old. About 65% of eggs result in fledged young birds, but 50% of these will die young because of predators such as Sparrowhawks, and only 5-25% of the fledglings will survive to breed. The UK-wide population has increased since 1960 from 48 to 100 million birds. Because of the environmental changes in the last fifty years such as global warming, Great Tits are now breeding one month earlier than in the 1960s and 1970s.

The Winter Moth, *Operophtera brumata*, which feeds on oak leaves, is a good food source during the breeding season of Great Tits, and the birds tend to synchronise their breeding with the time that there is an abundance of late instar caterpillars. The tits use cues such as temperature and day length to time their mating, but probably also the development stage of the oak leaf bud (the caterpillars hatch when the buds open) and early stages of the caterpillars.

Data on the behaviour of tits are obtained by ringing the birds (90% are ringed) and by a PIT tag (Passive Integrated Transponder) on the other leg. Some 65 feeders have been installed with built-in video, so that the feeding behaviour can be studied. More than 1,800 birds were tagged between 2007 and 2014 and more than 40 million individual records were obtained. These showed that the birds form definite social networks. Within Wytham Woods about ten different networks could be distinguished, although some intermingle. The birds learn from each other such as in the famous historical case of taking milk tops off to get at the cream, first noted in Southampton in 1921, and then spread to a large part of the country. Experiments have been carried out in Wytham Woods to see whether a cultural evolution takes place in wild Great Tits. Two birds were trained for 4 days to move a red flap to the left to get at meal worms from a "puzzle box", and two other birds to get them by moving a blue flap to the right. Another two birds served as controls and were not trained. In the controls, the knowledge that meal worms were available by moving the red or blue flaps spread only slowly, whereas 60-80% of the "friends" of the taught birds solved the puzzle very quickly and the majority of these used the colour of the flap that the taught birds had shown them. The behaviour was also transmitted between generations, because when the puzzle boxes were installed a year later, even the young birds (60%) who had not seen them before, quickly solved the puzzle and used the flap colour shown by the older birds of their social group. These results suggest a definite animal culture, which could be defined as 1) Non-arbitrary behaviour; 2) Persistent over time; 3) Adopted by the majority; 4) Transmitted between individuals and 5) Transmitted between generations.

7th March

Ants, ant intelligence and ant-hills by **Dr Timothy King,** Oxford University

Tim King took his Doctorate on the subject of ant hills and has written widely on ecology. He has written a popular science book 'Could an ant ride a bicycle?' and has studied the ant hills at Aston Rowant NNR for many years.

Tim began with a poem demonstrating the careful observation of ant behaviour made by the poet John Clare back in 1821. Since then ants have generally been given a bad press as in such books as H.G. Wells' 'Empire of the Ants'.

Ants are extremely numerous, in terms of total dry mass they equate to that of humans; even though ants are 10 million times lighter there are 10 million times more of them; but unlike humans their ecological footprint is in balance with their environment. Over the last 140 million years at least 12,500 species of ant have evolved. Ant societies perform similar activities to humans and represent a super organism: keeping 'cattle'; cultivating crops; storing seeds; sharing parental care; constructing homes; engaging in group warfare; using slaves and using trash dumps for waste. In tropical rain forests they rival earthworms in their capacity to aid decomposition and the recycling of material. Other ecosystem benefits include seed dispersal; bringing minerals to the surface and creating water channels. About 40% of ant genera have developed a dependency on aphids over millions of years, and aphids now have evolved structures specifically geared to let ants 'milk' them more easily. They are also associated with the lifecycle of 55 species of Lycaenid butterfly; in some of them the caterpillar produces scent and noises that mimic the queen ant so that it will be fed.

The discovery of a 92 million year old fossil of an ant confirms that they evolved from a wasp-like insect species. There are three main types of ants:

[1] **weavers** that build traps and bivouacs;

[2] **leaf cutters** (40-50 species) which take leaf fragments to build underground compost heaps,

[3] **harvester ants** which collect seeds or farm aphids for 'honey'.

The weaver ants use a type of silk from their larvae to bind leaves to form structures. 'Honey pot' ant abdomens have evolved into a large storage container for 'honey', these are even available in some countries like Australia and Thailand as a delicacy.

Tim King then moved on to the topic of ant intelligence. There are many definitions of what constitutes intelligence. One of the most general is exhibiting a behaviour that responds to the environment in a meaningful way. There have been many experiments that demonstrate intelligent ant behaviour. In one case a route to a sugar source required clambering up a window and down a cord. The ants soon chose to avoid the arduous climb by throwing down the sugar for their fellow foragers to collect. A desert ant species will free a fellow ant that has been bound by cutting the threads but only if the ant is alive and belongs to the same colony. Ants that need to forage ¼ mile to find seeds have amazing skills at finding their way home using the earth's magnetism and other mechanisms. Another study has shown how ants can 'count' when they survey new potential nesting sites; they will also abide by majority voting on the choice of an appropriate new nest site. Ants have relatively poor eyesight, some species have no eyes at all; instead they have a very acute sense of 'smell' on their main sense organ – their antennae. Ants have 12 different types of scent gland distributed around their body that are used for communication. Use of scent allows others to determine the caste of a fellow ant. Ants are also very sensitive to sound and studies of sound communication among ants are only just beginning. Although ants have a small brain, their 250,000 neurons are much more efficiently packed than in humans.

Tim King then turned to his long term study of the Meadow Ant *Lasius flavus*. In large undisturbed areas such as Porton Down and Rhossili, near Swansea, the ant populations can be very dense and there are an estimated 3 million ant hills there. His main study area is at Aston Rowant NNR,

Watlington. The ant hill builds up its own little ecosystem with rock roses growing on the south side while thymes grow on the cooler north side together with pleurocarpous mosses. In the gully around the anthill there is longer vegetation while on the top there are often rabbit droppings and it is often bare with only ephemeral plants taking root – such as Thyme-leaved Sandwort *Arenaria serpylifolia* and Speedwells *Veronica* spp. Inside the ant hill the larvae are regularly moved around to the place of optimum temperature for growth. An anthill may be up to 150 years old and as it gradually grows larger the size of an anthill gives an estimate of its age. The Meadow Ant colony is unusual in that it may have two or three queen ants living together harmoniously. If the grass is allowed to grow tall then the ant hills will also become taller and so the shape can indicate whether rabbits were present in the past. An ant hill begins in early August when one of the new queens flies around and lands on a patch of bare soil. The queen and her offspring then start digging down and build up the anthill. They feed on the honeydew produced by aphids feeding on plant roots. Specific types of aphid have been selected by the ants just as farmers selectively breed cattle. The area around the anthill is fought over by neighbouring colonies; any free space is soon taken up by a new colony. The ant hills provide food for Green Woodpeckers which in winter dig a characteristic hole on the top to reach the ants. Grey Partridges will also feed on ants. Grasshoppers, numerous inquilines, parasites and aphids also benefit from the ant colony. Ants are therefore very important for chalk grassland species diversity. Before about 1750 the English lowland was covered in anthills but in the period to 1820 they were seen as an obstacle to grassland productivity and removed. One way of establishing an ant colony at a new site is to simply dig it up and move it.

21st March

AGM and Members' Talks

Roger Dobbs: Bowdown Woods

Roger Dobbs has been involved in the management of Bowdown Woods near Newbury for 25 years. He gave a presentation on the history of the site and how this is evident in the current state of the woodland. The woods are on the north side of Greenham Common and have SSSI status; two thirds of the woods are semi-natural ancient woodland. Pictures from drones and LIDAR imaging reveal the scars left from its use as part of the Greenham airfield during World War 2. Roger has tracked down an old map showing the previous land usage in 1768. The map shows part of the woodland area was being used for arable crops. The timber valuation was £157 for ash. The tithe map in 1840 demonstrated how smaller fields had been coalesced into the much larger ones seen today. Roger described how the conservation volunteers were continuing to coppice the woods; some of the oldest ash coppice stools may have been started as far back as 900 years ago according to the size of the stool.

Sally Rankin: South-Eastern Australia

Sally originally came from near Melbourne and makes regular visits back to Australia. Her richly illustrated talk described a recent trip. Many of the Australian plant species are actually very different from European species even though some genera are common to both. The situation is made more complicated because early settlers gave them common names that reflect vague similarities to European plants so for example Mountain Ash is actually a Eucalyptus tree. The settlers cleared considerable areas leaving only pockets of native flora. There was an extensive bush fire in 2009 and in these areas tree ferns, eucalyptus trees and the ground flora have regenerated. *Acacia*, Australia's largest genus of flowering plants, has 954 species, about half as many as all species of wildflower in the UK. Australia has a fine range of indigenous orchids including the exquisite Greenhood, Wax-lip, Common Bird, Wallflower and Small Spider Orchids. As well as flowers, Sally showed many slides of the resident fauna including a Koala, Galahs, Sulphur-crested Cockatoos, Flying Foxes, a Tiger Snake, Tasmanian Devil, Bandicoot and an Echidna. Sally aptly demonstrated the diverse wildlife selected only from a tiny part of Australia, an area definitely worth further exploration.

Susan Twitchett: Namibia

Susan presented a breathtaking series of photographs taken by her husband Peter on a recent trip to South-western Africa. The trip had been inspired by Michael Keith-Lucas' talk in 2007. Namibia is four times the size of UK but has only 1/30th of the population. It has vast open spaces and only one metalled road. With a guaranteed eleven hours of blue sky and sun each day it is a very enticing place to visit. In the dry grasslands they saw Springbok, Giraffes, Kori Bustards and Rock Hyraxes. Weaver Birds form colonies of 500 birds which build large nests that also give refuge for falcons and even cobras. The Lilac-breasted Roller is a very vibrantly coloured bird. They visited the Fish River Canyon, the second deepest in the world; and there they found Quiver trees, Hartmann's Mountain Zebra, Steenbok and exotic *Euphorbia candelabrum* trees. They also saw the Namib Desert Horse of which only 100 or so survive in the wild. In the Namib desert - the oldest desert in the world - there is a surprising number of large herbivores include Gemsbok. Desert tracks revealed the passage of the nocturnal Web-footed Gecko. Perhaps the most unusual plant is the *Welwitschia mirabilis* which only produces two cotyledons and no true leaves; it is reputed to live to over 1,500 years. The Etosha National Park is a saltpan the size of Wales. One of the other remarkable sights was a family of the few remaining Desert Elephants. A hotel close to a water hole was a magnet to all sorts of animal including Giraffe, Springbok, Kudu and Black Rhino.

3rd October

Presidential Address: David Cliffe on **The Photographs of Ken Grinstead**

please see page 40 for this article

17th October

Impact of climate change and land use on butterflies

by **Dr Tom Oliver** Reading University

Tom Oliver now works at the University of Reading after a spell at the CEH (Centre for Ecology and Hydrology). His research area uses long term monitoring data to assess and predict changes to butterfly populations due to climate change. Overwhelming scientific evidence points to a dramatic increase in average temperature – anywhere between 2.5° to 8.5°C by 2100. The change will not be uniform across the world – the greatest effect is likely to be in the Arctic with a 10° to 12°C increase. In the UK the general trend is predicted to be warmer, wetter winters but drier, hotter summers. A climate of greater extremes will greatly stress our wildlife with many familiar species becoming extinct in the UK.

Tom's main source of long term data are counts of butterflies that have been carried out in the UK using a standard method (the Pollard walk) since 1976 at over 1,200 active recording sites. Over this 40 year time period the abundance of various species have shown dramatic changes:

1] Adonis Blue -17%, Lulworth Skipper -76%, Green Hairstreak -41%, Small Copper -37%

2] Comma +150% (due to change of food plant from hops to nettles) and Orange-tip +10%.

France, The Netherlands and Finland are some of the other European countries that have also been monitoring using the same method but only over the last 20 years and with fewer sites. Monitoring butterflies is much easier than other insect species and the figures can be used to indicate the relative health of the whole ecosystem.

The data show not just **where** but also **when** butterflies were seen. The study of first and last sightings (phenology) shows shifts in patterns. The date of mean abundance has shifted significantly. The Black Hairstreak is now most numerous 23 days earlier than in 1976, and the Silver-

studded Blue 15 days earlier. This shift has allowed some species, for example the Common Blue, to fit in an extra brood in the year.

The data also demonstrates that the northerly migration of distributions can be correlated with mean temperatures rise; this does not take place continuously but in waves (a cold spell can set back the advance for a few years). The Essex Skipper population has spread north at an average 20kms per decade. Computer models based on the data have allowed maps of predicted distribution to be created. Particularly hard hit will be species that like it cool and damp, for example the Ringlet is expected to become increasingly rare in France. In general wildlife is more sensitive to change the nearer it is to the limit of its range.

Of particular importance is the habitat because unlike the climate something can be done to help threatened species. The data shows that is not adequate to create a few isolated, protected nature reserves; it is the surrounding habitats that need to be wildlife friendly too. A wide range of habitats give much greater species diversity.

The complexity of producing accurate models can be glimpsed from the studies of the Holly Blue butterfly. The population shows a marked seven year cycle that might be inferred to be related to climate while in fact it is likely to be due to the population dynamics of a parasitic wasp that feeds on its caterpillars. When the butterfly population is high the wasp population builds up and leads to a dramatic decline of both species. It is unclear whether climate change may be affecting the butterfly population, just the wasp population or a mixture of the two factors.

It is often extreme weather events that have a dramatic effect on populations; the years 2013-16 have all seen some extremes of heat, rainfall and wind. Of particular interest was the **drought of 1995** when butterfly populations of six butterflies plummeted: Green-veined White -45%, Small White -66%, Speckled Wood -41%, Large Skipper -24% and Ringlet -51%. Of crucial importance is how fast the population builds back up after such extreme events. For some it took only three years but for the Speckled Wood it took 11 years and the Ringlet 24 years, while the Large Skipper has not yet recovered to previous levels. When extreme events become more frequent there is insufficient time for populations to recover, so species like the Ringlet are likely to decline over the longer term.

The positive story is that something can be done to help halt the decline. If the landscape has a diverse mixture of habitats (wetter, drier, poor soil, rich soil) then species can cling on in these areas to quickly re-colonise neighbouring habitats that turned temporarily too hostile. Woods play a key part as they hold moisture longer in drought conditions. An important factor is not just the abundance but size of woodland; a larger wood (over 2sq km) is more effective in maintaining diversity than a cluster of smaller woods.

Just as significant as population density is genetic diversity. A new study of Meadow Brown called Butterfly GEnetics Monitoring Scheme (BGEMS) will attempt to put some figures on this variation. The butterflies are being caught at the end of the season, at only twenty per site in the Thames Valley region and their DNA sequenced. Greater genetic diversity is likely to give the butterflies greater tolerance to environmental stress.

Tom then presented models that predict aridity using four RCP (Representative Concentration Pathways) measures of greenhouse gas emissions. The effects were presented relative to the 1995 drought, even at an RCP of 2.6 a number of severe aridity events are likely and at RCP of 8.5 every year is predicted to have a drought worse than that of 1995. Models indicate that many drought intolerant species will not survive the next 30 years in the UK. In particular the Ringlet butterfly seems likely to disappear in all but coastal areas.

Although only 10% of butterfly species had been studied the same may apply to plants and bees that are harder to monitor. DEFRA has developed a 25 year plan for continued data collection and the butterfly transect monitoring is due to be rolled out in more European countries.

7th November

Damselflies and Dragonflies in Southern Lowland Britain by Des Sussex

Dragonflies and Damselflies belong to the insect order Odonata, which means 'toothed'. Both the adults and larvae have teeth, which they need as they are carnivores. **Dragonflies** (suborder Anisoptera, meaning unequal-winged) are large and robust insects. They have two pairs of unequal wings, which are spread out to the sides of the body, and the large globular compound eyes meet in the middle of the head. **Damselflies** (suborder Zygoptera) are much more slender and dainty. Their two pairs of wings are similar and held backwards. The eyes are smaller and on the sides of the head, not meeting in the middle.

In Britain there are only about 50 species of Odonata, in contrast to the other insect orders, which comprise thousands of native species. Out of the 20 species of Damselflies, 14 [70%] have been recorded from Berkshire, and of the 27 British species of dragonflies, 17 [63%] can be found in this county. The reason why such a large percentage is present in this area is because of the large variety of suitable habitats for these insect such as acid bogs, large and small rivers, streams and ponds.

The life cycle of the Odonata starts with the eggs from which the larvae (**nymphs**) hatch in the spring. For some species the larval stage only lasts a few months, but for others several years. The nymphs look quite ferocious with big jaws. They live submerged in streams, ponds or bogs, often hidden in the mud, and eat both invertebrates, e.g. water fleas and small vertebrates such as young fish and tadpoles. It is interesting for children to see those nymphs, which they can catch by pond-dipping. At a suitable time of the year (for some species April, for others as late as August) the nymphs come out of the water, their skin splits behind the neck and the insect withdraws from the thorax and part of the abdomen to hang downwards for a while to allow the legs to harden. The adult dragonfly then appears through the split skin. This is an incomplete metamorphosis as there is no pupal stage. After an hour or so the wings appear and fluid and air is pumped into them. Later the wings snap open and harden off. At this stage dragonflies are very vulnerable. Most species emerge on the edge of water, but some on trees or even concrete river banks.

The adult Odonata are incredibly agile hunting machines, catching their prey, such as midges, mayflies and butterflies, whilst flying. The legs have evolved for perching and hunting, sometimes with spines that form a net, which they use as a basket for their prey, but they are no good for walking. The insects eat on the wing or may sit down to eat.

Mating is a very unromantic affair. The male grips the female by the head with its anal appendages (claspers) and the female curls her body round to the male genitalia to receive the sperm. Male and female usually fly in tandem position to a suitable plant to complete the copulation. The female lays her eggs almost immediately afterwards. The adults may live for only a few days, or for a few weeks or even longer but usually perish in the autumn and do not overwinter

For identification of Odonata, binoculars and good field guides should be used. Important characters in this respect are the colour of the legs, stripes on the thorax, patterns on the segments and dark blotches on the wings. A difficulty is that species often change colour during their adult life.

After this introduction, the speaker described many of the more common species recorded locally, such as the Emperor Dragonfly, *Anax imperator*, one of Britain's largest insects at 78 mm and easily recognisable by the bright blue abdomen of the male. A common damselfly in this area is the Banded Demoiselle, *Calopteryx splendens*, which is abundant near the rivers Loddon and Blackwater. Several rare species have increased in numbers in the last twenty years, such as the Small Red Damselfly, *Ceriagrion tenellum*, because of successful conservation measures. This species was almost extinct here in the 1990s, but now occurs in large numbers in the heathlands of Berkshire such as Snelsmore Common and Wildmoor Heath. The number of damsel and dragonfly species recorded locally also has increased, showing that the decline of species can be halted or reversed by conservation work.

Photographic Competition 2017
Winning Photographs (for article, see page 38)

Nature in Action

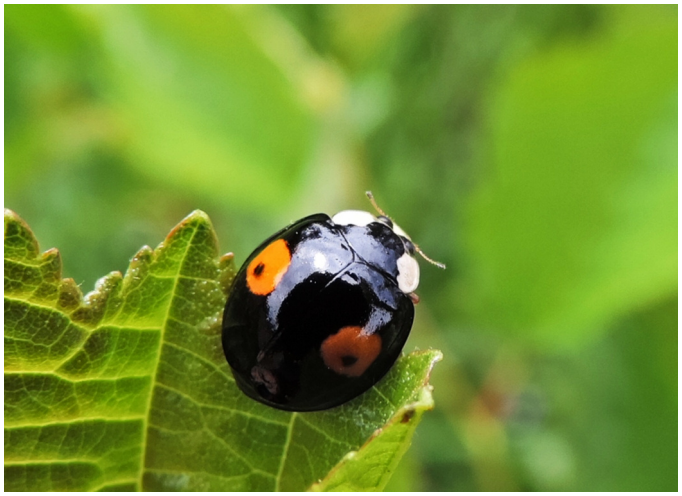
&

Overall Winner

Arguing Avocets

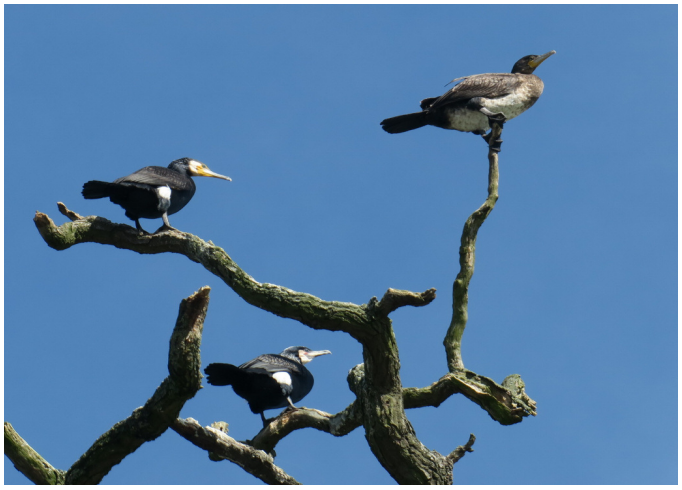
WWT Martin Mere

© Ken White



Harlequin Ladybird *Harmonia axyridis*, BBOWT Moor Copse
Winner: **Small is Beautiful** © - Rob Stallard

Hawthorn *Crataegus monogyna*, BBOWT Warburg
Winner: **Colour Prejudice** © - Ken White



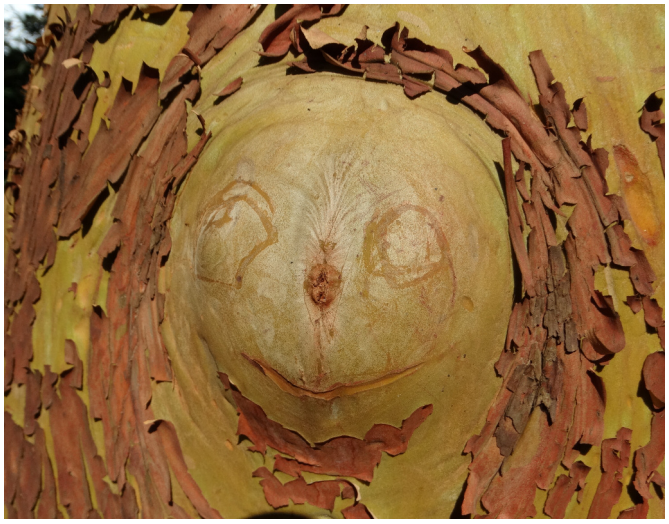
Great Cormorants, R.Thames, Sonning
Winner: **Three of a Kind** © - Ian Esland

Wasp Spider *Argiope bruennichi*
Winner: **Pattern Perfect** © - Grahame Hawker

Photographic Competition 2017: **Winning photographs** and **Runners Up**

Mediterranean Hartwort *Tordylium apulum,* Crete
Winner: **Floral-Fungal UK & Overseas** © - Ken White

Fallow Deer - Doe & Fawn, Chilterns
Winner: **Fauna UK & Overseas** © - Rob Stallard



Strawberry Tree bark, Harris Gdns, Reading Univ.
Winner: **Something to make you smile** © Laurie Haseler

Beech Tree bark, RDNHS midweek walk, Chilterns
Runner Up: **Something to make you smile** © - Ian Esland

Azure Damselfly, RDNHS trip, RSPB Otmoor
Runner Up : **Small is Beautiful** © - Laurie Haseler

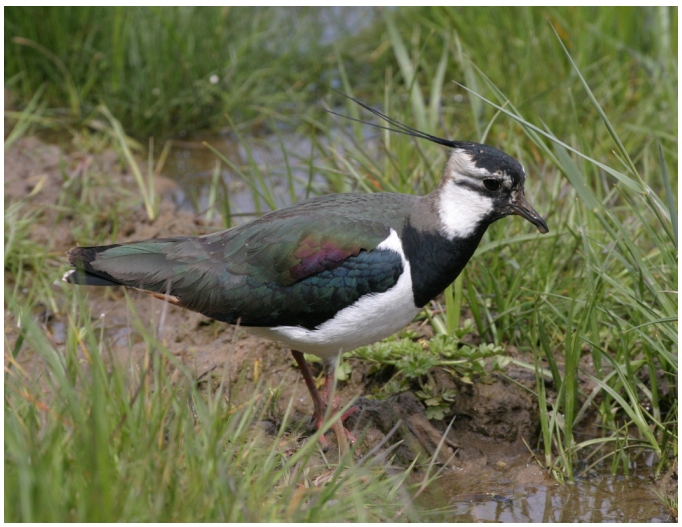
Crimson Waxcaps, BBOWT Moor Copse
Runner Up:**Three of a Kind** © Jan Haseler

Photographraphic Competition 2017: Runners Up

Teal, *Anas crecca,* RDNHS Norfolk trip, RSPB Titchwell
Runner Up: **Pattern Perfect** © Ken Whte

Fox in Tilehurst garden
Runner Up: **Nature in Action** © Laurie Haseler

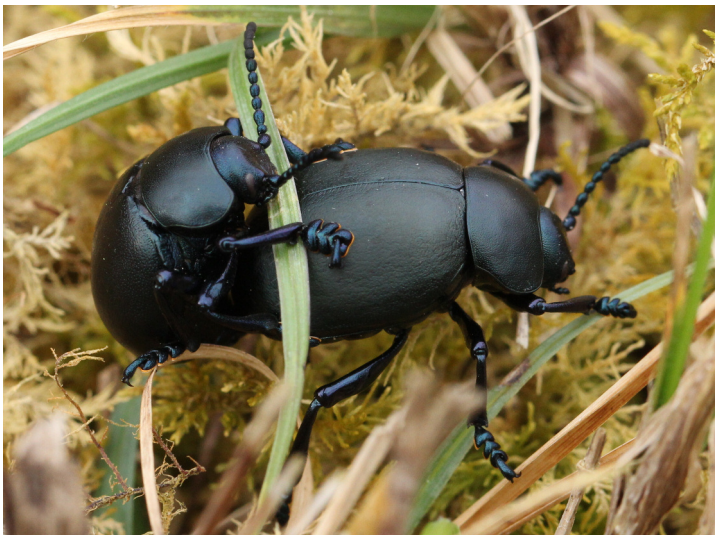
Mandarin pair, *Aix galericaluta,* R.Thames, Sonning
Runner Up: **Colour Prejudice** © Ian Esland



Lapwing, NWT Cley, Norfolk
Runner Up: **Fauna UK & Overseas** © Ian Esland

Bee Orchid*, Ophrys cretica*
Runner Up **Flora-Fungus UK & Overseas** © Ken White

Collared Earthstar *Geastrum triplex*
Photo © Rob Stallard



Bloody-nosed Beetles *Timarcha tenebricosa,* Warren Bank
Photo © Sue White

Helleborus foetidus, Nettlebed Common
Photo © Ian Esland

Ganoderma resinaceum on Cherry, Farley Hill
Photo © Rob Stallard

Autumnal Silchester RDNHS walk
Photo © Ken White

Marsh Helleborine *Epipactis palustris*, Dry Sandford Pit
Photo © Rob Stallard

21st November

A very Fine Swan Indeed: Art, Science and the Unfeathered Bird by Katrina van Grouw

Katrina's talk described her very personal journey in producing her book **The Unfeathered Bird**. The story began back in 1987 when she was working as a fine artist in Devon and became interested in bird anatomy as a source of illustrations for art work. There she used 'Amy', a female mallard who had drowned, as a model and it is to Amy that the book is dedicated. Over a long period Katrina peeled away layers of muscle, making illustrations until she had pared the duck down to its bones. Detailed knowledge of bird anatomy is needed by an illustrator to accurately draw birds. This was the approach taken by Katrina's hero John Audubon, who refused to compromise on standards and drew birds at life size and in dramatic poses. Another influence was George Stubbs who made his money painting portraits of racehorses, but his real passion was for creating dramatic wildlife pictures. Both artists knew their subjects' anatomy in great detail. Katrina has found that even some of the top museums display birds with their bone structures incorrectly reassembled.

Back in 1988 Katrina decided to publish a book on the anatomy of birds but it took fifteen years to find a publisher willing to print it; the subject was considered too specialist and academic. By chance she bumped into a Princeton University publisher in a pub and sealed a deal. However she chose not to take the academic route with carefully labelled black and white diagrams but instead made artistic drawings of birds in dramatic poses. She also chose to arrange the book in Linnaean order rather than genetic family so that unrelated birds appear next to each other and can be compared – for example all types of 'perching birds'.

To complete the book two hundred species were needed and she obtained specimens from all sorts of strange sources from road kill to zoos and turned her house into a rendering plant with her husband's dedicated assistance.

Katrina then presented some examples of how the anatomy of birds has become specialised to meet particular requirements. For instance to cope with the stresses of drilling into trees woodpeckers have strengthened bones in their heads, vertebrae and ribs. Green Woodpeckers feed on ants for which they need a long tongue. This is stored away along a shallow groove in the skull bone and the end is tucked up in the right nostril. Many owls need excellent hearing and although they are known for their large eyes it is the structure of their asymmetrically structured ears that allows them to accurately pinpoint their prey. The anatomy of domesticated animals has changed over only a few hundred years to give us the very different bone structures of dogs, hens and pigeons. It was this rapid change that gave Darwin empirical support for the theory of evolution.

Katrina's passion for her subject was very infectious and her ugly duckling had indeed turned into a very fine swan.

5th December

Leopards in South Africa

by Dr Tara Pirie, People & Wildlife Research Group, University of Reading

Tara had initially spent 10 years as a safari guide before becoming a leopard conservation researcher for the **Ingwe Leopard Team**. Her study area was at Thaba Tholo Wilderness Reserve, Limpopo Province, South Africa, which is outside the large formal protected areas; it is the only study of leopards outside a national park. Tara spoke passionately about engaging the local people, particularly schoolchildren who knew nothing about the leopards. She took the approach of gently introducing conservation after stimulating interest in the animals. She also worked with farmers and found friendly engagement through listening rather than confrontation was the way to bring them round.

She then described the leopards, they are smaller than tigers: the male about 60kg and female 40kg. They are immensely strong – they can drag prey up to 40kg up a tree to keep Hyenas and other scavengers at bay. They have a very varied diet from Tortoises to Giraffes and insects to Crocodiles; 112 different prey species have been recorded. They have excellent vision and a good sense of smell. Behaviour varies according to local conditions, for example if there are no scavengers there is no need to stash prey in trees. It has been generally considered to be a mainly solitary animal but Tara disputes this and has witnessed three generations socialising together. They maintain a small home range which they defend aggressively but have an extended range that they are content to share with other individuals. They stalk and then ambush their prey and so prefer edges of open areas, this has caused problems on roads where there have been several leopard deaths, but cutting back long roadside grass has greatly reduced this hazard.

Leopards have moved from **vulnerable** to **near threatened** conservation status and have lost 75% of their original range. They can still be found in Central Asia and Indonesia as well as Africa but South Africa is their stronghold. South Africa still issues 150 hunting permits each year. Farmers widely use poison and wire snares but although usually not targeted at leopards, they often fall victim.

She described the results of detailed research from her study area at Thaba Tholo. Individuals had been identified using 26 fixed cameras and tracks. Identification from images can be hard, age can be judged from the ears (damaged in fights) and colour of nose. The pattern of spots is unique and the general pattern is inherited. Males and females are hard to distinguish except by size. Her study area in which she lived for three years had only four resident leopards and 28 visiting leopards. This gives a density of 3 per 100km^2 which is fairly typical for areas outside the heavily protected areas.

Tara has seen the extremely rare strawberry leopard at Thaba Tholo, it has more red and less black pigment than normal which makes it **erythristic**. Only 18 have been seen in the world and only one in South Africa since the 1960s. More recently a strawberry leopard cub has been seen at the reserve. Although exciting this may be a cause for concern because it suggests that the colouring is controlled by a recessive gene and there is too little genetic diversity among the leopards.

Tara's immense knowledge and careful research in her talk brought this beautiful animal to life for us.

20th December

Christmas Party

Lesley Hawker this year set us not just one quiz but four Christmas and Natural History themed quizzes. Jan Haseler set a fiendishly hard quiz to identify trees and shrubs from their winter twigs while Rob Stallard set a novel quiz to choose edibility of a range of plants, fungi and creatures. The winner of the twig quiz was Grahame Hawker and Grahame also won the poison quiz after a tie breaker with Julia Cooper. Michael and José Keith-Lucas produced another batch of mulled wine to keep us all merry.

Christmas Party Photographic Competition by Laurie Haseler

The Photographic Competition at the 2017 Christmas Party attracted 62 entries, a slight decrease on the previous year. The same set of eight categories was used as in 2016: six were restricted to photos taken in the UK, with two generalised to "UK or overseas". There was a good spread of entries among the various categories, each had 6-10 photos as shown in the table below. The one new feature was that people were permitted two votes for best picture, in an attempt to make sure that the final choice clearly attracted the widest support.

The winners in each category are shown below, alongside the runners up, in each case with an indication of where pictures were taken. It was pleasing to see that a good number of the pictures were taken on RDNHS outings, or on Reserves belonging to BBOWT, our local wildlife trust.

Voting presented a difficult choice for members: 23 of the photos got three or more votes for "best in category". In the "best overall picture" category an amazing 25 pictures got one or more votes. This hopefully reflected the high overall standard of the pictures, though may possibly also have partly resulted from the idiosyncrasy of the criteria members used to judge the best picture.

In no category this year was there a tie requiring presidential arbitration. Five different photographers appeared in the overall list of category winners, six if runners up are included. For a third year running the overall best photo competition was won by Ken White, this time with a dramatic picture of two avocets launching into flight. Last year his photo of three avocets was narrowly beaten by his trio of pintail in the best picture competition.

Category	No.	Winner	Subject
1. Small is Beautiful: (UK)	8	Rob Stallard	Harlequin Ladybird at BBOWT Moor Copse
2. Three of a Kind: (UK)	8	Ian Esland	Cormorants on Thames near Mapledurham
3. Nature in Action: (UK)	8	Ken White	Two Avocets arguing at WWT Martin Mere
4. Colour Prejudice: (UK	9	Ken White	Hawthorn flowers at BBOWT Warburg
5. Pattern Perfect: (UK)	10	Grahame Hawker	Spider's web being woven
6. Something to Make You Smile: (UK)	6	Laurie Haseler	Face in tree bark in Harris Garden, RDNHS field trip
7. Any Flora or Fungus: (UK or overseas)	9	Ken White	Mediterranean Hartwort, Crete
8 Any Fauna: (UK or overseas)	6	Rob Stallard	Fallow deer in silhouette in the Chilterns
Best overall		Ken White	Two Avocets arguing at WWT Martin Mere

Category	No.	Runner Up	Subject
1. Small is Beautiful: (UK)	8	Laurie Haseler	Azure Damselfly, RDNHS trip MoD Otmoor
2. Three of a Kind: (UK)	8	Jan Haseler	Crimson Waxcaps, BBOWT Moor Copse
3. Nature in Action: (UK)	8	Laurie Haseler	Fox in Tilehurst garden
4. Colour Prejudice: (UK	9	Ian Esland	Mandarin Ducks, River Thames, Sonning
5. Pattern Perfect: (UK)	10	Ken White	Teal, RSPB Titchmarsh, RDNHS Norfolk trip
6. Something to Make You Smile: (UK)	6	Ian Esland	Face on tree bark, RDNHS midweek walk
7. Any Flora or Fungus: (UK or overseas)	9	Ken White	Bee Orchid, Crete
8 Any Fauna: (UK or overseas)	6	Ian Esland	Lapwing, NWT Cley Marshes, Norfolk

Presidential Address:

The Photographs of Ken Grinstead by David Cliffe

During my time as Local Studies Manager for Reading Borough Council, I was responsible for starting the cataloguing and scanning of the images in the Central Library's collection. In my retirement I have been able to continue with this work, dealing with around 2,000 images a year. This means that the pictures can be searched and viewed online, and the original material is filed in order in safe storage.

Additionally, I have "rescued" several collections of papers and photographs from destruction, where the original owners were "downsizing" or had passed away. Not everything, of course, was worth keeping, which is where skill and experience plays a part. So only some of the items were passed on to the appropriate library or archive.

And during my two previous spells as an RDNHS committee member, I was involved in similar work. In 2006, as part of the RDNHS 125th anniversary celebrations, Meryl Beek and I assembled an exhibition of papers, photographs and some artefacts, to illustrate our history.

Ken Grinstead on holiday in Majorca
1981

This led me to set myself the task of finding out what had happened to the rest of the society's papers and photographs. It was only after I had put in some hours at the Central Library, the Record Office, the Museum and the University, and presented a paper to the committee, that I discovered that Ken Grinstead had done the same exercise in 1999. So, although we had never met, I felt a kind of affinity with him.

Finding the old documentation led me to put together a history of the Society, which I presented as a talk in 2011, and to write an article on the subject for "Berkshire Old and New," the journal of the Berkshire Local History Association.

Then in 2016, during one of my spells off the R&DNHS committee, I received an e-mail message asking if anyone could give a home to a collection of 35mm slides that had belonged to Ken Grinstead – and by implication, perhaps do something with them. After Ken's widow, Margaret, had presented them to the Society, they had been looked after by Graham Saunders. Now, he was about to move away from the area. Considering my experience of this kind of work, I felt I ought to volunteer, and so I have acquired a 4-drawer filing cabinet, containing almost 10,000 slides.

It was only shortly after this that I received the unexpected phone call, inviting me to consider becoming President of the Society. I knew that, should I accept, I would be expected to give a Presidential Address, and wondered if this slide collection would make a suitable subject.

In the course of the talk, after explaining how I came to be looking after his collection, I gave an outline of the life and work of Ken Grinstead. I was helped in this by information kindly supplied by Norman Hall, our Membership Secretary.

Ken was born at Lynmouth, Devon, and attended the grammar school at Barnstaple. This involved travel on the Lynton and Barnstaple Railway, now long gone, and it was probably this that began his life-long interest in railways. He was a scientist, and the nature of his paid work suggests that he must have enjoyed higher education.

During the Second World War, he served with the Royal Signals in northern France. He is said to have erected an aerial at Windsor Castle for King George VI, though whether this was just so that he could tune in to the B.B.C. and whether Ken actually met the king isn't clear.

After the war, he worked for the Ministry of Defence at Porton Down on microbiological research. This must have suited him: people who knew him say that he was “a perfectionist” who was “meticulous” and “highly organised.” Thank goodness he was – he also labelled his slides, making my work much easier! He was also a good cook, and a connoisseur of good food and wine.

In his spare time, he was a keen amateur botanist, with a special interest in orchids, and an expert photographer. He was also, as a young man, a motorcycle enthusiast, who rode a Vincent bike.

During his time in Wiltshire, he did a lot of work for Salisbury Museum. In particular, he took photographs of archaeological investigations, and of rural industries which were in danger of dying out. He catalogued the Museum’s collection of almost 4,000 slides, some of which he had taken himself, and was made an Honorary Life Member of the museum.

Things changed for him in 1979: he married Margaret, and his work for the MoD took him to Aldermaston. He and Margaret lived at Baughurst. This explains why many of the earlier slides in his collection were taken in Wiltshire and north Hampshire, and many of the later ones in Berkshire.

He and Margaret joined the Reading & District Natural History Society, and Ken became a committee member in 1991. Between 1994 and 2000, he edited **The Reading Naturalist**.

He was also a volunteer on the Watercress Line, the heritage steam railway running between Alton and Alresford, and supported other more distant heritage lines.

Despite the health problems that came with increasing age, his mind remained sharp, and he remained very active. He died in 2010, following a fall from the steps of a signal box on the Watercress Line: ever the perfectionist, he was trying to get a better view of his photographic subject.

The gift of 9,084 slides presented the RDNHS committee with a problem. Large and wealthy societies have premises, paid staff, archives and libraries. Smaller local societies like ours are run by unpaid volunteers, and their possessions tend to get split up, and to reside in people’s spare bedrooms and garages. At least our documentary material is in safe keeping and accessible, though split between four institutions. Keeping track of our various pieces of equipment is not always easy.

In the case of the slides, while counting them, assessing them, and scanning some of them to illustrate my presentation, I began to consider what use we might make of them, why they were taken, and why I and many others have taken similar pictures. Jokingly, I told those present not to worry – I was not thinking of presenting the committee with yet another slide collection.

In the talk, I went on to consider the development of natural history photography. I went back to my childhood, when I wanted to read about “nature”, but there was nothing much available for children. I collected the I-Spy books at one shilling each, where only half the illustrations were in colour. I went on to the “Observer’s” series, at five shillings, which had the Latin names, but again, only every other opening of the book was in colour. Then I graduated to Edward Step’s “Wayside and Woodland” series at twelve-and-six, but post-war austerity again meant that only half the pictures were in colour. When the public library gave me access to the Collins “New Naturalist” books, the colour photography wasn’t up to much, which was usual for the time.

Taking colour pictures yourself was expensive, and the results were not very good. I was about 20 before I owned a camera. What made me want one was seeing other people’s 35mm colour slides, projected onto a screen. The brilliance, colour accuracy and quality were amazing. It wasn’t long before I had a single-lens reflex camera, a macro lens, a projector and a screen. They were the start of many hours of pleasure – and of frustration when I couldn’t get quite the result that I wanted. I soon learned that my pictures were not of great interest to relatives and friends. Then came digital photography, where you could see right away whether you had been successful, and you didn’t have to pay for the shots you didn’t want to keep.

The digital world also brought the Internet, and access to seemingly limitless good pictures of plants, insects, birds, etc. There was the advantage of being able to see pictures of the same species taken in different places, to give you some idea of the possible variations, and there were websites which gave close-up images of the features necessary for identification.

Despite the ready availability of images on line, the compulsion to take pictures is still very strong. This is another trait I share with Ken. It is partly a desire to record your own experience, even though you know that the pictures aren't likely to be of interest to anyone else. But it also stems from a compulsion to collect things. Many ornithologists will tell you how many species they have seen in the wild. In Ken's case, there seems to have been the compulsion to photograph every species of British wild orchid – although he never photographed the Lady's Slipper Orchid in this country. For years, there was only one "secret" location for it. This collecting compulsion seems to be more common in men than in women.

At the same time, we should not forget the aesthetic enjoyment to be had from looking at natural history images, on screen or printed page. This is not the same as the excitement generated by finding things in the wild, but it's something you can go back to in your leisure moments, and is rather less destructive than pressing plants, or pinning butterflies.

Ghost Orchid

Epipogium aphyllum

Photo © K. Grinstead

Virtually all of the slides in Ken's collection are excellent, well focused, and show what they are intended to show. They have been well labelled and stored, with no fading and no unnatural colour casts. Perhaps he was a bit too keen on the use of flash, which make some photographs look as though they were taken by night, but in other cases, the results from flash are quite stunning, and reveal great detail.

In some cases, several attempts at the same subject have been retained, and in some cases the pictures are of maps and pages from books. Ken was obviously giving talks on dragonflies and orchids. He must also have taken thousands of railway photographs, which hopefully have found a good home somewhere, and we know than Ken had taken many archaeological photographs for Salisbury Museum.

Considering the sheer number of slides, of the 9,084 in total, 6,004 were taken on foreign holidays, and of these, only around 2,400 are of natural history subjects. The others are often stunningly good, and could well have been used to illustrate travel guides.

Of the 3,080 slides taken in this country, 2,709 are of natural history subjects, and of these, around 1,500 were taken in the Reading area. Of these, the great majority show plants, fungi and insects.

167 slides were used up in my presentation, intended to show what was typical, and what was outstandingly good. It began with the foreign holidays, for some of which there were none of natural history interest. Many of the holiday slides were of scenery, but some – taken in Spain, France, and on Crete – had superb flower portraits. There were no family photographs among them.

We then proceeded to the pictures taken in the United Kingdom and Ireland, shown in the arrangement Ken had used. Just a few slides were shown to illustrate the smaller categories – mammals, 53 slides altogether; birds, 78 slides; reptiles and amphibians, 32 slides, crustaceans and Arachnidae, 43 slides, and so on. The butterfly and moth photographs were 273 in total, but these were dwarfed when we reached fungi, with 430 slides in total, and then plants, almost 1,500 slides.

Of the plants, there were good photographs of many of the plants the RDNHS has gone to see on its trips – like the Cheddar Pink *Dianthus gratianopolitanus* in the Cheddar Gorge, the Cut-leaved

Germander *Teucrium botrys* from the railway spoil-heaps at Micheldever, and the Coral Necklace *Illecebrum verticillatum*, Heath Lobelia *Lobelia urens*, Lesser Bladderwort *Utricularia minor*, Bog Orchid *Hammarbya paludosa* and Wild Gladiolus *Gladiolus illyricus* from the New Forest. Some were from farther afield, like the Dense-flowered Orchid *Neotinia maculata* on the Burren in Ireland, and the Alpine Fleabane *Erigeron borealis* and Alpine Gentian *Gentiana nivalis* on Ben Lawers. Perhaps the most intriguing slides were left till last – two pictures of the Ghost Orchid *Epipogium aphyllum,* where the slides have "near Marlow" written on them, and they were developed in August 1986. This is the orchid that is seen very rarely, in Chiltern beechwoods in this country.

After the slide-show, we had some discussion as to what should happen to Ken's collection:

Today, there are almost limitless numbers of natural history photographs on the web, and we should not forget that there are some present members of the Society who take stunning natural history photographs themselves – as we see in the photographic competitions at our Christmas parties.

Ken's pictures could be edited, scanned, and made viewable on a database. In fact, at home I have scans of pretty well all of the Society's old photographs, from the 1880s onwards, sitting on a series of CDs. It would make sense to include them on a database as well. The committee would have to decide on matters such as who should have access to the database, and, in the case of Ken's slides, whether it was necessary to keep the originals, or whether to rely on the digitised images.

Scanning images and cataloguing or captioning them so they can be found again involves a lot of work, the amount depending on the number of images to be kept. Once scanned, there would be scope for using them on posters to advertise the society, or turning them into picture postcards, greetings cards and calendars, to sell at meetings, and raise some money.

In deciding on the future of this slide collection, there are many things to take into account, but at least I have now looked at every slide, and made some kind of analysis, so that we know what we have, to help us make that decision. Perhaps it's good to have too much of something rather than too little – and at least, Ken and his slides gave me something to talk about, and other members of the Society who were there on the night had a pleasant time and something new to think about.

The Hawfinch Winter 2017-18 by **Sarah White**

The winter of 2017-8 will be remembered by UK birders as THE Hawfinch winter. **Hawfinches** are recognised as one of the more difficult British breeding birds to see – shy as well as scarce – and most sightings are just a glimpse of one or two birds in a few well-known locations. But in this exceptional winter, Hawfinches have been recorded widely in the southeast of England, not just in ones and twos, but in flocks of double figures or more.

Hawfinches are our largest finch, with a huge head and a beak capable of cracking cherry stones. Indeed its scientific name *Coccothraustes coccothraustes* means 'seed breaker'. It is a scarce breeder in Britain with an estimated breeding population of only 500-1000 pairs and is **Red listed** in **Birds of Conservation Concern** because of recent population declines. Although small numbers arrive to winter here from continental Europe every year, this year saw an exceptional influx, sometimes termed an **irruption**, with widespread records, well away from the familiar breeding locations, and some large flocks of up to 100 or so birds.

The influx in Berkshire is well documented on the www.berksbirds.co.uk website, with the first record on 16th October. Initially only quite small numbers of birds were recorded, for example in Wokingham, Dinton Patures, Moor Green Lakes, Padworth and Basildon Park. In December

around 100 were seen at Basildon Park in the Hidden Valley, and then a peak count of at least 130 birds, again at Basildon, on 28th January 2018.

In Hampshire they were also widely reported, again mostly in small groups, but also larger flocks including counts of 30 at Chawton and Romsey and of 25 at Ecchinswell and Hartley Wintney. In Oxfordshire flocks of 25 birds were at Lockinge and Witney, with 19 at Northmoor and 15 at Bix.

While their name implies that haws might be a favourite food, Hawfinches actually feed on a wide variety of seeds, buds and insects, especially during the summer; at other times of year they favour the hard, large fruits of Beech *Fagus sylvatica*, Hornbeam *Carpinus betulus*, Field Maple *Acer campestre* and Wild Cherry *Prunus avium* as well as tree buds. The birds wintering in Berkshire this winter have been observed eating berries of Yew *Taxus baccata* and Sloe *Prunus spinosa* as well as Ash *Fraxinus excelsior* keys and the terminal buds of Oak *Quercus robur*. Blacknest Gate, Virginia Water is a well known site for Hawfinches feeding on Sweet Chestnuts on the ground. While completing BTO Atlas surveys back in the winter of 2010/11 my husband and I observed a pair of Hawfinches eating berries of Mistletoe *Viscum album* in the tops of tall Lime *Tilia* sp.trees on the Highclere estate.

The Hawfinch was present in exceptional numbers during the 2017/18 winter. This one was at Brimpton. Photo © -Ken White

Availability of food is the most likely reason for the exceptional influx this winter. A combination of a good breeding season in their breeding strongholds in eastern Europe, coupled with a poor seed crop, and possibly assisted by a favourable wind direction, will cause an irruption of birds in Britain. BTO ringing recoveries abroad up to 2016 show Norway with 8 recoveries, Sweden with 2 and Germany with 1. However, Orkney & Shetland combined have had 4 recoveries. A similar food shortage scenario causes **Waxwing** *Bombycilla garrulus* irruptions to Britain in some winters. Another irruptive migrant, which has come in larger numbers than usual this year, is the **Parrot Crossbill**, *Loxia pytyopsittacus* This bird has a restricted world distribution, nesting only in mature conifer forests in Fennoscandinavia and NW Russia. They feed exclusively on pine cones and move southwards only in years of poor pine production. **Bramblings** *Fringilla montifringilla* are another of our winter visitors, feeding on beechmast and other seeds, which have arrived in good numbers this 2017/18 winter. We have had a regular Brambling in the garden since 20th October and there was a peak count of 34 birds at Englefield at the end of November.

References

http://www.berksbirds.co.uk/

http://www.goingbirding.co.uk/hants/birdnews.asp

https://www.bto.org/science/monitoring/psob

http://goingbirding.co.uk/oxon/birdnews.asp

Brown, A. and Grice, P. (2005) ***Birds in England***, A&C Black/English Nature.

Bathing beauties by **Marion Venners**

I have a millstone-effect water feature in my garden with a low spout of water coming through the middle. The water pools on the stone in an area of about 400mm radius and is no more than 9mm deep in any place. Normally birds visit the fountain in the morning and again in the late afternoon. There is a small *Prunus subhirtella autumnalis* tree over the fountain and the birds queue up in this tree and a nearby *Cotoneaster* waiting for their turn in the water. The garden is on the western edge of Reading abutting agricultural land and quite near the mainline railway.

On average, in the course of a normal hour of activity around the water there would be about 12 Blue Tits, 7 Great Tits, a pair of Blackbirds, a House Sparrow and a Robin. Usually they would use the water individually, with one or two waiting in the overhanging tree, and occasionally another bird on the edge of the millstone.

At about 10.30 am on 26 January 2017 I happened to notice that there seemed to be more birds than usual in the water. After a while I started to write down the bathing beauties. This is what I recorded in about an hour that day. The birds listed together were all in the water together:

2 Goldfinches, 2 Blue Tits and 1 Great Tit

1 House Sparrow, Blue Tit, Great Tit and Song Thrush

1 Song Thrush, female Blackbird and Great Tit

male Blackbird and a jittery Blue Tit

female Chaffinch, then later on 2 Great Tits and 1 Song Thrush

a shy male Blackcap, Great Tit, & House Sparrow

male Chaffinch & then later several Long-tailed Tits (these are infrequent visitors to my garden)

Coal Tit, then Robin, then female Blackcap

1 Blue Tit continually bobbing it's head into the fountain (a regular visitor)

1 Robin and 2 Blue Tits, then 1 Bullfinch (a very irregular visitor to my garden)

3 Goldfinches and 1 Blue Tit, then 1 Long-tailed tit, Goldfinch and Blue Tit

Soon after 12 noon this mass bathing came to an end and normal activity resumed. The temperature was -1° C and partly sunny. The snow of a few days before had melted. I wondered if the really bad weather had brought birds from the agricultural land into the edge of the suburbs where I live and where they found shelter and food and water, or perhaps some water in a nearby garden had failed.

The water feature brings birds to my garden every day to drink and for their ablutions. On that very cold day the water was obviously vitally important to the birds, who overcame their usual inhibitions by bathing and drinking together.

Obituary for Mike Fletcher by **Tricia Marcousé**

Long-standing RDNHS members will be sad to hear of the passing of **Mike Fletcher** who was the Excursions Secretary 1970-72, President from 1992 - 1994 and Vice-President 1994 – 2000, as well as being on our committee at various times from 1972 to 2000. He was a keen amateur Bryologist and a member of The British Bryological Society, but he was far from being a single-minded naturalist and his house in South Street, Reading, was alive with his music. His garden was a moss garden with a greenhouse collection of some 700-800 species of bryophyte, either in test tubes or on small squares of polystyrene tiles supported in small square plastic plant pots. He self published the "**Moss Growers Handbook**" in February 1991 and produced a second edition in November 1995. This is still much sought after.

Mike led many walks for RDNHS and attended most trips to offer his expertise to all. In a time before the risk of tick-borne Lyme Disease, Mike's trademark was bare feet whether the ground was squelchy or stoney. After partial recovery from major brain surgery, he and his wife Iris moved to Frome in Somerset and, although some society members visited them, his wide knowledge was lost to the rest of us. Thankfully his moss collection passed to Reading University.

Obituary for Brian Reed (1939–2017) by **Brenda Reed**

Brian Reed joined 'the Nats' in 1978 together with his young daughters Catryn and Rhonwen. He always attended as many of the evening talks and excursions - both short and long - as he could. He became Excursions Secretary in 1985, a position he held until 1989 when, after our marriage, we moved from Tilehurst to Hook. Although Brian's interest in natural history never waned, it became increasingly difficult for him to participate in the excursions and he was eventually diagnosed with progressive MS in 1992. Typically, when he could no longer do one thing, Brian would find something else that he *could* do; thus well-equipped with a degree in mathematics and prior experience, he took on the role of Honorary Auditor in 1995/96, continuing until 2016.

Wild flowers had always been Brian's main interest – he took more pleasure in identifying a weed found in the garden than in admiring the rightful inhabitants! He also loved lighthouses and despite the difficulties, we visited nearly all those in the UK, concentrating first on the most remote. In so doing, his knowledge of birdlife, especially of the coastal regions, developed.

Brian was a brave man, who simply kept going and always maintained a positive outlook on life despite the hard knocks he'd had to endure; there aren't too many like him.

A BBOWT Moor Copse Year by **Ailsa R.E. Claybourn**

Now coming into my fourth year of bird surveying at **BBOWT Moor Copse**, **Tidmarsh**, I always enjoy visiting the reserve, hearing familiar calls and songs, pleased to see birds in their regular spots, and excited by anything new. I also monitor our mink raft, noting any signs of the presence of these unwelcome visitors.

Looking back through my records for some of the **2017** highlights, it is interesting to note the variations in temperature on my survey days: although January was a seasonable 0˚C, March's balmy +10˚ was followed by a chilly +2˚ in April. The coldest month was November, at -1˚C, rising to +10˚ degrees in December. These variations are easy enough for me to cope with (add an extra thermal layer, or not) but must be a challenge to wildlife. However, climate change has brought Little Egrets to the reserve: one has been there throughout this winter, its whiter than white plumage a beautiful sight.

Winter brings visiting thrushes, and we had good numbers of Redwing in 2017; they're always more numerous at Moor Copse than their larger cousins, Fieldfare and their high-pitched calls are a feature of winter walks. We have plenty of Siskin in the winter, too, and their excited chattering accompanies their busy feeding, usually high up in Alders.

Winter is officially over by March, according to the survey calendar, as that is when we start the breeding (rather than the winter) bird surveys; for me, spring has arrived when I hear my first singing Chiiffchaff of the year, which was on March 15th in 2017. He wasn't alone: I counted 4 other singing males that day. There was a Blackcap singing on the 23rd March, and by the time of my next survey, April 26th, Whitethroat were vigorously defending their territories.

Whitethroat numbers are increasing at Moor Copse; they've nested in the hedge between Corner and Barton's Fields for 2 or 3 years and their angry tuttings will tell you you've been spotted: enjoy being scolded, but keep moving, so as not to disturb them. 2017 was a particularly good year for Blackcaps, with plenty singing, and good sightings of the chestnut-headed females.

I often see Cormorant flying overhead, but had a treat in June when, attracted by an unusual swirling wave in the Pang near the bridge by Park Wood, I was delighted to see a Cormorant pop up close by me as it came out of a dive. I left it to fish in peace.

It's always a delight to spot a Kingfisher, and we have a resident pair who I regularly see. I usually know they're about because of their piercing single-note call, given in flight: hear that, and look up to see a flash of jewel-like brilliance hurtle past you, as the bird flies low over the river to somewhere more peaceful. They are easily disturbed, but can often be seen perching on reeds hanging over the water by the old concrete bridge in Hogmoor Copse. I saw them feeding one youngster this year: there may been others elsewhere, so this doesn't mean they reared only one. Our Mute Swans successfully raised only a lone cygnet, which is still with its parents, and looking well.

Red Kite and Buzzard are to be seen in good numbers, and a pair of Kestrels has bred on the reserve over the last couple of years. I often see Sparrowhawk, but none as cheeky as the one that used me as cover when hunting Pied Wagtails, fortunately unsuccessfully! I am seeing more Peregrines over Moor Copse, and have been told they're nesting on the tower at Pangbourne College, not far away, as the falcon flies.

Autumn saw big flocks of Long-tailed Tits feeding in the trees on all parts of the reserve, as well as in large mixed flocks of tits. October brought some unaccustomed calm, when the M4 was closed for repairs. It's fortunate that one can usually ignore the constant roar of traffic, but it was noticeably much more peaceful without it. November brought a first for me at Moor Copse (and maybe a first for the reserve?) when I saw two Stonechat, perching on fence posts in Arable Field. I hoped they would spend the winter with us, but saw only one in December, and none since. However, this doesn't mean they aren't still there, just that I didn't see them. I'll keep looking, but they'll be moving to their breeding territory soon, preferring low growing heather and gorse in which to nest.

By December, the Great Tits were noisily calling, establishing breeding territories and reminding me of spring, and so the cycle begins again, and I'm looking forward to another year at Moor Copse.

We use mink rafts to monitor the river for signs of Mink throughout the year. Mink are inquisitive, as well as voracious animals, and willingly walk across a raft, treading in soft clay held in a tray within the "tunnel" on the raft, leaving pawprints as evidence of their presence. They are present in most months of the year, but attempts to catch one have been unsuccessful.

On a more positive note, I have been finding Otter prints by the River Pang, very close to Moor Copse, and the animals must be using our stretch of the river. Larger than Mink, Otters are too big to fit in a mink raft. Maybe 2018 will be the year in which I see an Otter at Moor Copse!

BOTANY RECORDER'S REPORT 2017 by Renée Grayer

The plant records below have been selected from two main sources, firstly the plant species seen during the 2017 RDNHS field meetings and Wednesday walks, and secondly those observed by members and their friends during wildlife or plant recording trips, e.g. for the BSBI 2020 plant surveys. Many more plant data are always received by the RDNHS botany recorder than can be listed in the Botany Report, otherwise the whole of the Reading Naturalist would be filled with just the botany records. Therefore a selection had to be employed. In general only those species have been included in the list that have been found within a 35 mile radius of Reading with the exception of the data collected during the RDNHS trip to Otmoor, Beckley, because of the wealth of rare and unusual plants found there (we visited the SSSI site of the Ministry of Defence area, which has restricted access).

The **Flora of Berkshire** by M.J. Crawley (2005) was used for further selection, using rarity or decrease in numbers as criteria. A few exceptions were made when interesting data were provided for some of the less uncommon plants.

The plant species in this report have been arranged according to the alphabetical sequence of the scientific names. The 3rd edition of **C.A. Stace New Flora of the British Isles** (2010) has been followed for the scientific and British names of the plant species. Family names are given in brackets after the English name. Nearly all species belong to the class of the Flowering Plants (Angiospermae), but a few species belong to the Conifers (Gymnospermae) and to the Ferns and Allies (Pteridophyta). Only in the latter two cases the name of the class is given in addition to the family name. Whenever a species was recorded during a RDNHS trip or walk, usually the name of the excursion leader is given after the record, even if another member of the group discovered the plant.

***Althaea officinalis* - Marsh Mallow (Malvaceae)**

12/09/17. Shiplake, along the river Thames. SU7739978569 (RG & TM)

***Anacamptis pyramidalis* - Pyramidal Orchid (Orchidaceae)**

15/06/17. Purley. SU691743 (JL)

20/06/17. Gillot's Field, near Henley. SU7456681267 (SR, RG, SW, TM, JW)

16/07/17. Playhatch, unsown margin of arable field. SU74037660 (RG & GT)

19/07/17. Turville (RDNHS walk). SU767912 (RS)

***Apium inundatum* - Lesser Marshwort (Apiaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP572140 (DM)

***Atropa belladonna* - Deadly Nightshade (Solanaceae)**

19/07/17. Turville, Idlecombe Wood (RDNHS walk). SU753912 (RS)

***Baldellia ranunculoides* - Lesser Water-plantain (Alismataceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57261404 (DM)

***Campanula glomerata* - Clustered Bellflower (Campanulaceae)**

19/07/17. Ibstone, Grays Lane Bank (RDNHS walk). SU749923 (RS)

05/08/17. Aston Rowant NNR (RDNHS trip). SU72159633 (JH)
27/08/17. The Holies, Streatley (RDNHS trip). SU59227997 (JH)

***Carex filiformis* - Downy-fruited Sedge (Cyperaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57331280 (DM)

***Carex hostiana* - Tawny Sedge (Cyperaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP573130 (DM)

***Carex pulicaris* - Flea Sedge (Cyperaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57381504 (DM)

***Carex strigosa* - Thin-spiked Wood-sedge (Cyperaceae)**

30/04/17. Moor Copse BBOWT Reserve (RDNHS trip). SU636740 (MK)

***Centaurium pulchellum* - Lesser Centaury (Gentianaceae)**

16/07/17. Flowing Spring Quarry, few specimens. SU74767707 (RG & GT)

***Cephalanthera damasonium* - White Helleborine (Orchidaceae)**

23/0517. Basildon Park, 5 specimens. SU613776 (JH)

***Cirsium eriophorum* - Woolly Thistle (Asteraceae)**

16/07/17. Dry Sandford Pit BBOWT Reserve (RDNHS trip). SU4681199430 (AP)

27/08/17. The Holies, Streatley (RDNHS trip). SU5917679849 (JH)

***Clinopodium acinos* - Basil Thyme (Lamiaceae)**

27/08/17. The Holies, Streatley (RDNHS trip), abundant. SU590800 and SU592798 (JH)

***Clinopodium ascendens* - Common Calamint (Lamiaceae)**

16/07/17. Playhatch, unsown margin of arable field. SU740766 (RG & GT)

***Coeloglossum viride* - Frog Orchid (Orchidaceae)**

05/08/17. Aston Rowant NNR (RDNHS trip). SU72399583 and 72199634 (JH)

***Cynoglossum germanicum* - Green Hound's-tongue (Boraginaceae)**

21/06/17. Warburg BBOWT Reserve (RDNHS trip). SU716882 (SR)

***Dactylorhiza maculata* - Heath Spotted-orchid (Orchidaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP573129 (DM)

***Datura stramonium* - Thorn-apple (Solanaceae)**

16/07/17. Playhatch, unsown margin of arable field. SU73907677 (RG & GT)

20/09/17. Swyncombe, RDNHS walk. SU670904 (JH)

***Doronicum pardalianches* - Leopard's-bane (Asteraceae)**

02/05/17. Peppard Common. SU70458169 (SR, RG, TM, JW)

***Drosera rotundifolia* - Round-leaved Sundew (Droseraceae)**

24/09/17. Wildmoor Heath BBOWT Reserve (RDNHS trip). SU845630 and SU849630 (MK)

***Echinochloa crus-galli* - Cockspur (Poaceae)**

16/07/17. Playhatch, unsown margin of arable field. SU739768 (RG & GT)

***Elodea nuttallii* - Nuttal's Waterweed (Hydrocharitaceae)**

17/07/17. Caversham Lakes Nature Reserve. SU738751 (GT)

***Epipactis leptochila* - Narrow-lipped Helleborine (Orchidaceae)**

21/06/17. Warburg BBOWT Reserve (RDNHS trip). SU714878 (SR)

***Epipactis palustris* - Marsh Helleborine (Orchidaceae)**

16/07/17. Dry Sandford Pit BBOWT Reserve (RDNHS trip). SU467996 (AP)

***Festuca filiformis* - Fine-leaved Sheep's-fescue (Poaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57381504 (DM)

***Filago pyramidata* - Broad-leaved Cudweed (Asteraceae)**

29/06/17. Flowing Spring Quarry, hundreds of specimens. SU747770 (SR, AP, RG)

***Genista tinctoria* - Dyer's Greenweed (Fabaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57401306 (DM)

***Gentianella amarella* – Autumn Gentian (Gentianaceae)**

27/08/17. The Holies, Streatley (RDNHS trip), abundant. SU589800 and SU590800 (JH)

***Gentianella germanica* - Chiltern Gentian (Gentianaceae)**

05/08/17. Aston Rowant NNR (RDNHS trip). SU72079618 and SU72399583 (JH)

27/08/17 The Holies, Streatley (RDNHS trip), abundant. SU591801 and SU593800 (JH)

***Geranium columbinum* - Long-stalked Crane's-bill (Geraniaceae)**

27/08/17. The Holies, Streatley (RDNHS trip). SU59138005 (JH)

***Geum rivale* - Water Avens (Rosaceae)**

27/04/17. Moor Copse, Hogmoor. SU634741 (JL)
30/04/17. Moor Copse BBOWT Reserve (RDNHS trip). SU63897348 (MK)

***Gymnadenia densiflora* - Marsh Fragrant-orchid (Orchidaceae)**

16/07/17. Dry Sandford Pit BBOWT Reserve (RDNHS trip). SU467996 (AP)

***Helleborus foetidus* - Stinking Hellebore (Ranunculaceae)**

18/01/17. Upper Basildon (RDNHS walk). SU580769, SU591780 and SU595768 (ST & PT) 25/02/17. Nettlebed (RDNHS trip). SU70298697 (JerW)

***Helleborus viridis* - Green Hellebore (Ranunculaceae)**

18/04/17. Flowercroft Wood. SU72598122 (SR & RG)

***Hordelymus europaeus* - Wood Barley (Poaceae)**

19/07/17. Turville, Churchfield Wood (RDNHS walk). SU750919 and SU757909 (RS)

16/10/17. Ashampstead area. SU5718075725 (RS)

***Hottonia palustris* - Water-violet (Primulaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP572140 (DM)

***Hydrocharis morsus-ranae* - Frogbit (Hydrocharitaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57261404 (DM)

***Hypericum humifusum* - Trailing St John's-wort (Hypericaceae)**

13/06/17. Finchampstead, Rectory Farm. SU782634 (JL)
21/06/17. Decoy Heath. SU611633 (JL)

***Hypopitys monotropa* - Yellow Bird's-nest (Ericaceae)**

21/06/17. Warburg BBOWT Reserve (RDNHS trip). SU714878 (SR)

***Iberis amara* - Wild Candytuft (Brassicaceae)**

16/07/17. Flowing Spring Quarry, large numbers on scree slope. SU74737705 (RG & GT)

20/09/17. Swyncombe Downs (RDNHS walk). SU671914 (JH)

***Juncus subnodulosus* - Blunt-flowered Rush (Juncaceae)**

16/07/17. Dry Sandford Pit BBOWT Reserve (RDNHS trip). SU466996 (AP)

16/07/17. Cothill Fen NNR. SU46079978 (GT & RG)

***Juniperus communis* - Juniper (Gymnospermae / Cupressaceae)**

20/09/17. Swyncombe Downs (RDNHS walk). SU680914 (JH)

***Lagurus ovatus* - Hare's-tail (Poaceae)**

12/02/17. Burghfield, Herons Nest. SU665702 (JL)

***Lathraea clandestina* – Purple Toothwort (Orobanchaceae)**

28/04/17. Newtown Common. SU4723063147 (RS)

***Leucojum aestivum* - Summer Snowflake (Amaryllidaceae)**

14/04/17. Hosehill, Ash Hill. SU650694 (JL)

***Linaria repens* - Pale Toadflax (Veronicaceae)**

19/07/17. Turville (RDNHS walk). SU762918 (RS)

27/08/17. The Holies, Streatley (RDNHS trip). SU590800 and SU592800 (JH)

20/09/17. Swyncombe Downs (RDNHS walk). SU671914 (JH)

16/10/17. Aldworth, bank bordering churchyard. SU5538579379 (RS)

***Menyanthes trifoliata* - Bogbean (Menyanthaceae)**

13/06/17. Finchampstead, Rectory Farm. SU791633 (MK & TM)

***Misopates orontium* – Weasel's-snout (Veronicaceae)**

16/07/17. Flowing Spring Quarry, 2 specimens on scree slope. SU7473577056 (RG & GT)

***Narcissus pseudonarcissus* - Wild Daffodil (Amaryllidaceae)**

06/03/17. Pamber Forest, in flower. SU611601 (JH)
12/04/17. Orchard Copse. SU70808375 (SR, RG, TM)
12/04/17. Shepherd's Green. SU71858318 (SR, RG, TM)

***Narthecium ossifragum* - Bog Asphodel (Nartheciaceae)**

24/09/17. Wildmoor Heath BBOWT Reserve (RDNHS trip). SU84406258 and SU84946309 (MK)

***Oenanthe fistulosa* - Tubular Water-dropwort (Apiaceae)**

08/04/17. Upper Inhams Copse HIOWWT Reserve (RDNHS trip), vegetative. SU621614 (JH)

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP573130 (DM)

16/07/17. Cothill Fen NNR. SU46079978 (GT & RG)

***Ophrys apifera* - Bee Orchid (Orchidaceae)**

20/06/17. Gillot's Field near Henley. SU7472281444 (SR, RG, SW, TM, JW)

***Orchis mascula* - Early-purple Orchid (Orchidaceae)**

25/04/17. Park Wood, Moor Copse BBOWT Reserve, 82 specimens. SU636739 (JH)

25/04/17. Baker's Ride, Moor Copse BBOWT Reserve, 40 specimens. SU639738 (JH)

30/04/17. Moor Copse BBOWT Reserve (RDNHS trip). SU63607399 (MK)

06/05/17. West Woodhay chalk pit, growing with Meadow Saxifrage. SU387618 (JH)

17/05/17. Beenham, Greyfield Wood (RDNHS walk), c. 40 specimens. SU578689 (JL)

***Orobanche elatior* - Knapweed Broomrape (Orobanchaceae)**

30/06/17. Sheepdrove Farm, Bockhampton Down. SU345816 (JL)

***Paris quadrifolia* - Herb-Paris (Melantiaceae)**

21/06/17. Warburg BBOWT Reserve (RDNHS trip), leaves only. SU721881 (SR)

***Parnassia palustris* - Grass-of-Parnassus (Parnassiaceae)**

16/07/17. Cothill Fen NNR, leaves only. SU46079978 (GT & RG)

***Pedicularis palustris* - Marsh Lousewort (Orobanchaceae)**

16/07/17. Cothill Fen NNR. SU46079978 (GT & RG)
24/09/17. Wildmoor Heath BBOWT Reserve (RDNHS trip). SU84546301 (MK)

***Pimpinella major* - Greater Burnet-saxifrage (Apiaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57431310 (DM)

***Polystichum setiferum* - Soft Shield-fern (Pteridophyta / Dryopteridaceae)**

27/08/17. The Holies, Streatley (RDNHS trip). SU593803 (JH)

18/10/17. Mortimer (RDNHS walk). SU661647 (MB & MV)

***Ranunculus peltatus* - Pond Water-crowfoot (Ranunculaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57291396 (DM)

***Rhynchospora alba* - White Beak-sedge (Cyperaceae)**

24/09/17. Wildmoor Heath BBOWT Reserve (RDNHS trip). SU849630 (MK)

***Salix triandra* - Almond Willow (Salicaceae)**
13/06/17. Finchampstead, Rectory Farm. SU791633 (MK & TM)

***Sanguisorba officinalis* - Great Burnet (Rosaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57381504 (DM)

***Sanicula europae*a - Sanicle (Apiaceae)**

25/04/17. Park Wood, Moor Copse BBOWT Reserve. SU636739 (JH)

02/05/17. Peppard Common. SU70438139 (SR, RG, TM, JW)

19/05/17. Grayfield Wood, Beenham (RDNHS walk). SU579691 (JL)

***Saxifraga granulata* - Meadow Saxifrage (Saxifragaceae)**

06/05/17. West Woodhay chalk pit. SU387618 (JH)
16/05/17. Hermitage, Furze Hill. SU511742 (JL)

***Schoenus nigricans* - Black Bog-rush (Cyperaceae)**
16/07/17. Cothill Fen NNR. SU46079978 (GT & RG)

***Serratula tinctoria* - Saw-wort (Asteraceae)**
29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57381504 (DM)

***Silene coronaria* - Rose Campion (Caryophyllaceae)**

16/07/17. Playhatch, unsown margin of arable field. SU740765 (RG & GT)

***Sorbus torminalis* - Wild Service-tree (Rosaceae)**
18/04/17. Flowercroft Wood. SU72528114 (SR & RG)

***Stachys* x *ambigua* - Hybrid Woundwort (*S. sylvatica* x *S. palustris*) (Lamiaceae)**

17/08/17. Fobney Island car park. SU705710 (JL)

***Stellaria palustris* - Marsh Stitchwort (Caryophyllaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57361299 (DM)

***Veronica polita* - Grey Field-speedwell (Veronicaceae)**

16/07/17. Playhatch, unsown margin of arable field, large numbers. SU73877660 (RG & GT)

***Veronica scutellata* - Marsh Speedwell (Veronicaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57291396 (DM)

***Viola canina* subsp. *canina* - Heath Dog-violet (Violaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57371303 (DM)

***Viola persicifolia* Fen Violet (Violaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP57331290 (DM)

***Viola* x *ritschliana* - Hybrid Violet (*V. canina* x *V. persicifolia*) (Violaceae)**

29/05/17. Otmoor MoD SSSI (RDNHS trip). SP5734129

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LEPIDOPTERA RECORDER'S REPORT 2017 by Norman Hall

2017 was a reasonable year for Lepidoptera – or at least for *trapping* Lepidoptera. I came to this conclusion by looking at the numbers of macromoth *species* recorded each night in my garden traps over the last few years, and concluded that 2017 was better than 2016, about the same as 2015, but not as good as 2014. I considered numbers of species, rather than of individuals, as I am more interested in biodiversity than in apparent population density, which is much more weather-dependent. Trapping conditions were not good **all** the year : after July the weather became rather wet and the later autumn nights were too often cold and clear, but this seems to have been the rule rather than the exception in recent years.

During the year, I attended several meetings arranged by Roger Stace of BBOWT as part of the West Berks Living Landscape Project. Five of these produced macro species counts between 65 and 90 pooled for all people running traps, the 90 being from Limberlost Farm near Crookham Common, a fabulous site that had not been surveyed before, the visit to which was one of the highlights of 2017. This is very good for the Reading area, but, on a personal note, I must mention that I was lucky enough to be invited to trap in Bentley Wood in Wiltshire on 20th June, which turned out to be the hottest night of the year. This produced 95 macro species (including a Triangle) from my own traps and sheets alone, probably my best 'score' ever anywhere in the UK.

We were not so lucky with the weather when the RDNHS had a mothing evening and party on 29th July, hosted by Susan & Peter Twitchett at Upper Basildon. Here it rained all night, clearing just before dawn - Paul Black had stayed up all night manning traps - and a sheet under a gazebo to keep it dry. We had been there on a previous occasion at almost the same time of year, 22/7/2006 – and when compared the two species lists were astonishingly different See more detailed report in Excursions, p.13.

I had two new macro species in my garden this year, something that has not happened for many years now. Both were moths I'd never seen in Britain at all, though I'd seen them many times in France and Spain. The first was a **Small Marbled**, a delightful tiny noctuid, and the second was a **Dotted Fanfoot**, a marshland species.

A systematic list of records of selected species follows, all from within our area 'within 20 miles of Reading'. Records are attributed, in square brackets, to the *identifier*, who is usually the recorder, and not necessarily the person who trapped the moth. A further attribution in round brackets will be the trapper. The total number of records received was over 5,000, but this obviously had to be reduced for a report, and almost all records of nationally common species have been filtered out. However, a sortable table of all records of all species remains on file.

A NOTE ON MAP REFERENCES IN THE SYSTEMATIC LIST

Four of the contributors run moth traps regularly in their own gardens: Tony Rayner runs traps at Red Cow Cottage, Cholsey, SU592868 in VC22 (Vice County 22: 'Old Berkshire'); Jan Haseler an MV trap at Westwood Avenue (Tilehurst), SU666742 (VC22); Ian Esland a 2 X 30W actinic trap at Whitchurch Hill, SU63697880 (VC23, Oxfordshire) and I run two MV traps at Harcourt Drive (Earley), SU73527096 (VC22). These grid references are not repeated throughout the systematic list.

Snelsmore Common (SU436710) and Beale Park (SU618778) are large sites and more accurate grid references are not given for each record.

Eriocraniidae

02.003 ***Eriocrania unimaculella,*** **local**

23/5/17, Lambourn Woodlands, Cleeve Bank SU332765 [JL]

Hepialidae

03.003 ***Korscheltellus fusconebulosa,*** **Map-winged Swift, local**

01/6/17, Limberlost Farm, Thatcham [PBL]

Opostegidae

05.001 ***Opostega salaciella,*** **local**

29/5/17, Red Cow [AR]

Adelidae

07.002 ***Nemophora metallica,*** **Nationally Scarce B**

17/7/17, Watts Bank reserve SU331771 [JL]

07.014 ***Nematopogon metaxella,*** **local**

02/6/17, Red Cow [AR]

Tineidae

12.010 ***Morophaga choragella,*** **local**

07 & 09/7/17, Harcourt Drive (Earley) [NMH]

12.039 ***Monopis crocicapitella,*** **local**

18/10/17, Harcourt Drive (Earley) [NMH]

Gracillariidae

15.012 ***Caloptilia semifascia,*** **local**

30/3/17, 6 females & 30/9/17, Harcourt Drive (Earley) [NMH]

The summer and autumn generations are so different that they were once thought to be different species. The 6 females seen in March were the autumn generation of 2016 having overwintered. The one seen at the end of September was from the autumn generation of 2017 [NMH]

15.017 ***Calybites phasianipennella,*** **local**

15/5/17, Red Cow [AR]

Ypsolophidae

17.001 ***Ypsolopha mucronella,*** **local**

02/2/17, Watts Bank SU330771 [JL]

17.002 ***Ypsolopha nemorella,*** **local**

23/7/17, Whitchurch Hill [IES]

Plutellidae

18.001 ***Plutella xylostella,*** **Diamond-back Moth, Migrant**

07 & 09/7/17, Harcourt Drive (Earley) [NMH]

Considerable numbers were seen after an invasion in 2016, but this year numbers are back to normal. {NMH]

Oecophoridae

28.025 ***Pleurota bicostella,*** **local**

22/5/17, Decoy Heath SU610633 [JL]

Ethmiidae

33.001 ***Ethmia dodecea,*** **local**

27/6/17, Red Cow [AR]

Gelechiidae

35.157 ***Recurvaria leucatella,*** **local**

03, 04 & 07/7/17, singles, Harcourt Drive (Earley) [NMH]

Pterophoridae

45.012 ***Stenoptilia pterodactyla,*** **Brown Plume, common**

18/6/17, Westwood Road (Tilehurst). New record for garden. [JH]

45.033 ***Merrifieldia leucodactyla,*** **Thyme Plume, local**

08/7/17, Red Cow [AR]

45.034 ***Merrifieldia baliodactylus,*** **Dingy White Plume Nationally Scarce B**

09/7/17, Red Cow, photo available. [AR]

Tortricidae

49.058 ***Spatalistis bifasciana,*** **local**

01/6/17, Whitchurch Hill, photo submitted, [IES]

49.085 ***Acleris kochiella,*** **local**

01/7/17, Red Cow [AR]

49.167 ***Celypha rivulana,*** **local**

03/7/17, Red Cow [AR]

49.209 ***Ancylis diminutana,*** **local**

15/7/17, Fence Wood SU512713 [JL]

49.238 ***Epinotia cruciana,*** **Willow Tortrix, local**

15/6/17, Crookham Common SU52296433 [NMH (RST)]

49.275 ***Eucosma conterminana,*** **local**

17/7/17, Watts Bank reserve SU33077718 [JL]

Sesiidae

52.002 ***Sesia apiformis,*** **Hornet Moth NB**

21/5/17, Stanford Dingley SU57657162 [JL]; 19/8/17, 20, Hosehill LNR, Theale, eastern section SU652697, exit holes [JH]

52.014 ***Bembecia ichneumoniformis,*** **Six-belted Clearwing NB**

17/7/17, Watts Bank reserve SU33087721 [JL]

Hesperiidae

57.001 ***Erynnis tages,*** **Dingy Skipper, BAP**

Earliest: :23/4/17, 3, Aldermaston, Easter Park SU614638 [JH]

Latest: 01/6/17, Red Cow [AR]

Red Cow: from 26/5/17 to 01/6/17

High count: 7/5/17, 18, Holies, Middle Field SU592799, Highest count [JH]

57.002 ***Pyrgus malvae,*** **Grizzled Skipper, BAP**

Earliest: 23/4/17, 2, Aldermaston, Easter Park SU614638 [JH]

Latest: 26/5/17, 2, Paices Wood SU588637 [JL]

High count: 02/5/17, 12, Aston Upthorpe Downs SSSI SU546838 [JH]

New site:24/5/17, Padworth, field south of Padworth Common SU621644 [JH]

57.005 ***Thymelicus lineola,*** **Essex Skipper**

Earliest: 25/6/17, Decoy Heath SU613638 [JH]

Latest: 11/8/17, Red Cow [AR]

Red Cow: from 26/6/17 to 11/8/17

57.006 ***Thymelicus sylvestris,*** **Small Skipper**

Earliest: 15/6/17, Purley SU6476 [JL]

Latest: 16/8/17, Red Cow [AR]

Red Cow: from 26/6/17 to 16/8/17

57.008 ***Hesperia comma,*** **Silver-spotted Skipper**

Earliest: 05/8/17, 10, Aston Rowant NNR, Bald Hill NW SU721962 [JH]

Latest: 05/8/17, 10, Aston Rowant NNR, Bald Hill SU724959 [JH]

57.009 ***Ochlodes sylvanus,*** **Large Skipper**

Earliest: 31/5/17, Moor Copse, River Field S, Compartment 28b SU635738 [JH]

Latest: 01/8/17, Mortimer, Hundred Acre Piece SU639651 [JH]

Red Cow: from 04/6/17 to 13/6/17

High count: 13/6/17, 20, Finchampstead SU7863, Rectory Farm [JL]

Pieridae

58.003 ***Anthocharis cardamines,*** **Orange-tip**

Earliest: 26/3/17, FobneySU703709 [JL]

Latest: 26/5/17, Red Cow [AR]

Red Cow: from 1/4/17 to 26/5/17

High counts: 13/4/17, 13, Moor Copse [JH]; & 21/5/17, 12, Ashampstead Common [JL]

58.006 ***Pieris brassicae,*** **Large White**

Earliest: 16/4/17, Farncombe SU3177 [JL]

Latest: 15/10/17, Westwood Road (Tilehurst) [JH]

Red Cow: from 14/5/17 to 13/10/17

58.007 ***Pieris rapae,*** **Small White**

Earliest: 28/3/17, Red Cow [AR]

Latest: 6/10/17, 3, Hillgreen, Chapel Farm SU449759 [JH]

Red Cow: from 28/3/17 to 24/9/17

58.008 ***Pieris napi,*** **Green-veined White**

Earliest: 01/4/17, Westwood Road (Tilehurst)[JH]

Latest: 17/9/17, Westwood Road (Tilehurst) [JH]

Red Cow: from 02/4/17 to 11/9/17

58.010 ***Colias croceus,*** **Clouded Yellow**

Only sighting:10/8/17, Reading Services, westbound M4 SU669699 [JH]

58.013 ***Gonepteryx rhamni,*** **Brimstone**

Earliest: 27/2/17, Purley SU6675 [JL]

Latest: 28/9/17, Red Cow, [AR]

Red Cow: from 20/3/17 to 28/9/17

Nymphalidae

59.003 ***Pararge aegeria,*** **Speckled Wood**

Earliest: 05/4/17, Caversham, Furze Plat SU7176 [JL]

Latest: 27/10/17, 2, Arborfield, Greensward Lane SU748669 [JH]

Red Cow: from 7/4/17 to 5/10/17

High count: 02/9/17, 20, Peasemore, Old Street E SU470771 [JH]

59.005 ***Coenonympha pamphilus,*** **Small Heath, BAP**

Earliest: 07/5/17, The Holies, Top section SU588802 [JH]

Latest: 12/9/17, 2, Swyncombe Downs SU673913 [JH]

Red Cow: 14/6/17, Red Cow, only record[AR]

High count: 18/6/17, 24, Aston Upthorpe Downs, Juniper Valley SU544832 [JH]

Records from 9 sites in all [NMH]

59.009 ***Aphantopus hyperantus,*** **Ringlet**

Earliest: 10/6/17, Hosehill LNR SU649694 [JL]

Latest: 01/8/17, Mortimer, Hundred Acre Piece SU639651 [JH]

Red Cow: from 14/6/17 to 25/7/17

High count: 25/6/17, 22, Decoy Heath SU613638 [JH]

59.010 ***Maniola jurtina,*** **Meadow Brown**

Earliest: 01/6/17, Red Cow [AR]

Latest: 05/9/17, Basildon Park, power lines SU603769 [JH]

Red Cow: from 01/6/17 to 02/9/17Max of 22 on 28/8/17

High count: 18/6/17, 66, Lardon Chase SU588809 [JH]

59.011 ***Pyronia tithonus,*** **Gatekeeper**

Earliest: 23/6/17, Westwood Road (Tilehurst) [JH]

Latest: 28/8/17, Red Cow [AR]

Red Cow: from 27/7/17 to 28/8/17 Max of 50 on 25/7/17

High counts: 01/8/17, 43, Mortimer, Holden's Firs [JH]; & 25/7/17, 50, Red Cow [AR]

59.012 ***Melanargia galathea,*** **Marbled White**

Earliest: 10/6/17, Hosehill LNR SU649694 [JL]

Latest: 23/7/17, Red Cow [AR]

Red Cow: from 13/6/17 to 23/7/17 [AR]

High count: 28/6/17, 53, Red Cow [AR]

26/6/17, Westwood Road (Tilehurst). First garden sighting since 2010 [JH]

59.013 ***Hipparchia semele,*** **Grayling, BAP**

Earliest: 01/8/17, 34, Mortimer, Hundred Acre Piece SU639651 [JH]

Latest: 15/9/17, Mortimer, Hundred Acre Piece SU633651 [JH]

New site: 15/8/17, 2, Padworth, Raghill Farm SU612646 [JH]

High counts: 01/8/17, 34, Mortimer, Hundred Acre Piece SU639651 & 12/8/17, 60, Mortimer, Hundred Acre Piece SU633651. For Graylings, 1 is good and 10 is exceptional. The numbers in 2017 were outstanding. [JH]

59.017 ***Argynnis paphia,*** **Silver-washed Fritillary**

Earliest: 18/4/17, Fobney Island SU702710 [JL]

Latest: 06/8/17, Hampstead Norreys SU5476 [JL]; & 4, Mortimer West End, Simms Copse SU645636 [JH]

High count: 17/7/17, 16, Mortimer, Starvale Woods SU655656, 13 [JH]

Records from 14 localities in all. [NMH]

59.019 ***Argynnis aglaja,*** **Dark Green Fritillary**

Only sightings: both of individuals, 05/8/17, Aston Rowant NNR, Bald Hill SU721962 & SU724959 [JH]

59.021 ***Limenitis camilla,*** **White Admiral, BAP**

Earliest: 17/6/17, Padworth Common SU619647, my first this year. [JL]

Latest: 06/7/17, Decoy Heath SU610633, 5 [JL]

New site:23/6/17, Burghfield Common, Scratchface Copse SU657674. A new site on the edge of the village. [JH]

59.022 ***Apatura iris,*** **Purple Emperor**

Only sighting: 14/7/17, 2, Moor Copse SU43957389 [JL]

59.023 ***Vanessa atalanta,*** **Red Admiral**

Earliest: 28/10/16, Tilehurst SU6573 [JL]

Latest: 10/11/17, Red Cow [AR]

Red Cow: from 20/2/17 to 10/11/17 Max of 20 on 5/10/17.

59.024 ***Vanessa cardui,*** **Painted Lady**

Earliest: 27/6/16, Fobney Island SU701711 [JL]

Latest: 25/8/17, Wallingford SU604894 [JH]

Red Cow: 1 on 4 dates from 17/7/17 to 13/8/17

Other records, all of singles: 07/5/17, Fobney Island SU703710 [JL]; 14/5/17, Moor Copse SU639735, Corner Field [JL]; 01/6/17, Burghfield, Hopkiln Farm SU694687 [JH]; 09/6/17, Tilehurst, allotment SU670748 [JL]; 30/7/17, Garden Harcourt Drive, Earley SU735711 [RG]

59.026 ***Aglais io,*** **Peacock**

Earliest: 09/3/17, Red Cow [AR]

Latest: 18/9/17, Red Cow [AR]

59.027 ***Aglais urticae,*** **Small Tortoiseshell**

Earliest: 09/3/17, Red Cow [AR]

Latest: 12/10/17, Red Cow [AR]

Red Cow: from 09/3/17 to 12/10/17

59.031 ***Polygonia c-album,*** **Comma**

Earliest: 09/3/17, Red Cow [AR]; & 1, Inkpen Common SU383641 [JH]

Latest: 15/10/17, Westwood Road (Tilehurst) [JH]

Red Cow: from 09/3/17 to 05/10/17

Riodinidae

60.001 ***Hamearis lucina,*** **Duke of Burgundy, BAP**

Earliest: 10/5/17, 8, Little Hidden Farm, Hungerford Newtown SU348714 [JH]

Latest: 25/5/17, 3, Strawberry Field, Lambourn Woodlands & 3, Crog Hill SU332834 [JL]

Lycaenidae

61.001 *Lycaena phlaeas,* Small Copper

Earliest: 03/5/17, Moor Copse, River Field S, Compartment 28b SU635738 [JH]

Latest: 23/9/17, 3, Moor Copse, Wigley Field, Compartment 32 SU636736 [JH]

61.004 *Favonius quercus,* Purple Hairstreak

Earliest: 19/7/16, Hampstead Norreys SU5476 [JL]

Latest: 01/8/17, Padworth Common, NW sector SU618648 [JH]

25/7/17, 2, Burghfield Common, Scratchface Copse SU657674 [JH]

61.005 *Callophrys rubi,* Green Hairstreak

Earliest: 23/4/17, Padworth, field south of Padworth Common SU621644 [JH]

Latest: 03/6/17, Broadmoor Bottom SU856629 [JL]

Also reported from Paices Wood [JL];, Mortimer [JH]; and The Holies [JH]

JHA was delighted to find Green Hairstreaks at the two heathland sites (Padworth Common & Mortimer), because she rarely sees them away from the chalk.

61.010 *Cupido minimus,* Small Blue, BAP

Earliest: 07/5/17, Lardon Chase SU588809 [JH]; & 1, Paices Wood SU587637 [JL]

Latest: 29/10/17, Red Cow [AR]

Red Cow: On 28/5/17 and from 02/7/17 to 29/10/17 Max of 17 on 28/9/17

High count: 18/5/17, 55, Lambourn Woodlands SU329773, Thornhill top strip. [JL]

JLE also reported sightings at Sheepdrove, Thornhill Bank, Paines Bank, Moor Copse, Fobney Island, Crog Hill, Lambourn Woodlands & Broadmoor Bottom.

61.012 *Celastrina argiolus,* Holly Blue

Earliest: 30/3/17, 2, Westwood Road (Tilehurst) [JH]

Latest: 12/10/17, Tilehurst SU665742 [JL]

Red Cow: from 02/4/17 to 06/8/17

61.014 *Plebejus argus,* Silver-studded Blue, BAP

Earliest: 16/6/17, Broadmoor Bottom SU856628 [JL]

Latest: 18/7/17, Broadmoor Bottom SU856628 [JL]

No records away from Broadmoor Bottom. [NMH]

61.015 *Aricia agestis,* Brown Argus

Earliest: 07/5/17, Holies, Bottom Field SU594798 [JH]

Latest: 20/9/17, Red Cow [AR]

Red Cow: from 19/5/17 to 20/9/17

61.018 *Polyommatus icarus,* Common Blue

Earliest: 07/5/17, 2, The Holies, Top section SU588802 [JH]; & 1, Paices Wood SU588637 [JL]

Latest: 23/9/17, Red Cow [AR]

Red Cow: from 19/5/17 to 23/9/17 max of 40 on 25/7/17

61.019 *Polyommatus bellargus,* Adonis Blue

Earliest: 13/8/17, 15, Lardon Chase SU588809, A very good count. [JH]

Latest: 27/8/17, 8, Holies, Bottom Field SU594798 [JH]

61.020 *Polyommatus coridon,* Chalk Hill Blue

Earliest: 22/7/17, 114, Lardon Chase SU588809, Highest count. A very good count. [JH]

Latest: 27/8/17, Holies, Bottom Field SU594798, Leader: Jan Haseler [JH]

05/8/17, 15, Aston Rowant NNR, Bald Hill NW SU721962, Leader: Jan Haseler [JH]

Pyralidae

62.007 *Cryptoblabes bistriga,* local

29/7/17, Coromandel SU59417682 [NMH]

62.022 *Pempelia genistella,* Nationally Scarce B

03/8/17, Greenham Common (Estovers)

SU49946524 [NMH]

62.024 *Rhodophaea formosa*, local

27/6/17, Red Cow [AR]

62.038 *Acrobasis consociella*, local

24/6/17, Whitchurch Hill [IES]

Crambidae

63.015 *Sitochroa verticalis*, local

08/7/17, Red Cow [AR]

63.028 *Ostrinia nubilalis,* European Corn-borer, local

From 27/6/17, Red Cow [AR] to 28/9/17, Whitchurch Hill [IES]

26/8/17, Westwood Road (Tilehurst). New record for garden. [JH]; 12/7/17, Caversham, Bugs Bottom SU7076 [JL]

63.092 *Agriphila selasella,*..local

03/8/17, Whitchurch Hill [IES]; 16/8/17, Paices Wood SU638651 [JL]; 19/8/17, Whitchurch Hill. [IES]

63.109 *Pediasia contaminella,* Nationally Scarce B

28/7/17, Harcourt Drive (Earley) [NMH]

Drepanidae

65.003 *Watsonalla cultraria,* Barred Hook-tip, local

22/8/17, Whitchurch Hill [IES]

65.011 *Tethea or,* Poplar Lutestring, local

From 12/5/17, Snelsmore [PBL] to 17/8/17, Thatcham Reedbeds [PBL]

65.016 *Achlya flavicornis,* Yellow Horned, common

08/3/17, Westwood Road (Tilehurst); new record for garden. [JH]

Lasiocampidae

66.001 *Poecilocampa populi,* December Moth, common

High counts: 03/12/17, 13, Westwood Road (Tilehurst), highest ever count. Previous highest 4 in 2005 [JH]; & 6/12/17, 13, Whitchurch Hill [IES]

66.003 *Malacosoma neustria,* The Lackey, common

18/6/17, 2, Westwood Road (Tilehurst). Last seen in 2011 [JH]; 26/6/17, Ockwells Park, Maidenhead. [PBL]

Supposedly common, but seems to be decreasing. [NMH]

Sphingidae

69.010 *Macroglossum stellatarum,* Humming-bird Hawk-moth, immigrant

21/5/17, Frilsham Common [PBL]; 21/5/17, Frilsham Common SU552736 [JL]; 14/6/17, Englefield SU627721 [JL]; 03/7/17, Burghfield Common SU6467 [JL]

69.017 *Deilephila porcellus,* Small Elephant Hawk-moth, local

Red Cow: 1 on 10/6/17 & 26/6/17; a poor year. [AR]

Geometridae

70.015 *Idaea emarginata,* Small Scallop, local

From 01/7/17, Snelsmore [PBL] to 29/7/17, Coromandel, Upper Basildon [PBL]; Red Cow: 1 from 04/7/17 to 11/7/17

70.016 *Idaea aversata,* Riband Wave, common

Very early: 24/5/17, Ockwells Park, Maidenhead [PBL]

Very late: 24/9/17, Snelsmore, late [PBL]

70.025 *Scopula immutata,* Lesser Cream Wave, local

From 06/7/17, Audrey's Meadow, Newbury [PBL] to 20/7/17, Baynes Wood East [PBL]

70.027 ***Scopula floslactata,*** **Cream Wave, local**

From 15/5/17, Mapleash Copse, Snelsmore [PBL] to 30/5/17, Lane through Snelsmore [PBL]

70.031 ***Cyclophora annularia,*** **The Mocha, NB**

24/5/17, Ockwells Park, Maidenhead [PBL]

70.038 ***Rhodometra sacraria,*** **The Vestal, immigrant**

16/10/17, Red Cow [AR]; 17/10/17, 2, Harcourt Drive (Earley) [NMH]; 20/10/17, Harcourt Drive (Earley) [NMH]; 23/10/17, Snelsmore [PBL]; 23/10/17, Whitchurch Hill [IES]; 25/10/17, Snelsmore [PBL]

70.047 ***Nycterosea obstipata,*** **The Gem, immigrant**

20/9/17, Red Cow [AR]

70.050 ***Xanthorhoe biriviata,*** **Balsam Carpet, uncommon**

15/7/17, Beale Park, plentiful [PBL]. Three trappers present that night may have caught about 30 examples between them.[NMH]

70.055 ***Xanthorhoe quadrifasiata,*** **Large Twin-spot Carpet, local**

20/6/17, Newtown Road Cemetery, Newbury [PBL]; 50/7/17, 2, Whitchurch Hill [IES]; 15/7/17, Beale Park [PBL]

70.056 ***Catarhoe cuculata,*** **Royal Mantle, local**

02/6/17 & 13/6/17, singles, Red Cow [AR]; 15/7/17, Beale Park [PBL]

70.062 ***Epirrhoe rivata,*** **Wood Carpet, local**

08/6/17 & 26/6/17, singles, Red Cow [AR]

70.063 ***Epirrhoe galiata,*** **Galium Carpet, local**

12/7/17, Caversham, Bugs Bottom SU7076 [JL]

70.064 ***Euphyia biangulata,*** **Cloaked Carpet, NB**

06/7/17, Audrey's Meadow, Newbury [PBL]

70.065 ***Euphyia unangulata,*** **Sharp-angled Carpet, local**

18/5/17, Bomb Site, Bowdown Wood [PBL]; 15/6/17, Crookham Common SU52296433 [NMH (RD)]

Very late: 11/8/17, Horris Hill, S of Newbury [PBL]

70.067 ***Anticlea derivata,*** **The Streamer, common**

29/3/17, Whitchurch Hill [IES]

Very late: 15/5/17, Mapleash Copse, Snelsmore [PBL]

70.104 ***Lampropteryx otregiata,*** **Devon Carpet, NB**

High count: 04/6/17, lane through Snelsmore [PBL]; 20/7/17, 11, Baynes Wood East, Newbury, an unusually high number for Berks [PBL]; 11/8/17, Horris Hill, S of Newbury [PBL]

70.111 ***Asthena albulata,*** **Small White Wave, common**

Early record: 20/4/17, Bowdown Woods West [PBL (RD)]

70.117 ***Minoa murinata,*** **Drab Looper, NB**

16/5/17, Bradfield, Owlpit Copse S field SU587730 [JL]; 21/5/17, Frilsham, The Alders SU550725 [JL]; 21/5/17, Frilsham, High Copse SU552726 [JL]; 21/5/17, Frilsham, Combe Wood SU542732 [JL]; 21/5/17, Bradfield, Long Copse SU577746 [JL]; 21/5/17, Frilsham Common SU552736 [JL]; 21/5/17, Long Copse, Stanford Dingley [PBL]; 26/5/17, Paices Wood SU584638 [JL]

70.128 ***Melanthia procellata,*** **Pretty Chalk Carpet, common**

Very late: 17/9/17, Snelsmore [PBL]

70.155 ***Eupithecia venosata,*** **Netted Pug, local**

26/5/17, Red Cow. First for the site. [AR]

70.158 ***Eupithecia pusillata,*** **Juniper Pug, common**

18/6/17, Westwood Road (Tilehurst). New record for garden. [JH]

70.159 ***Eupithecia phoeniceata,*** **Cypress Pug, uncommon**

From 07/9/17 to 15/10/17. 4 records from Harcourt Drive (Earley) [NMH] & 2 from

Westwood Road (Tilehurst) on 20/9/17 & 01/10/17, being the first and second records for JAH's garden.

70.174 *Eupithecia insigniata,* Pinion-spotted Pug, NB

13/4/17, Red Cow [AR]

70.186 *Eupithecia millefoliata,* Yarrow Pug, NB

15/7/17, Beale Park. Provisional I.D. [PBL]; 03/8/17, 4, Greenham Common (Estovers) SU49946524, gen.det. [Alan Prior]

70.208 *Ligdia adustata,* Scorched Carpet, local

05/4/17, 2, Waltham Place SU85657710 [IES]; 12/4/17, Work, Basingstoke [PBL]; 8/5/17, Waltham Place SU85687708 [IES]; 01/6/17, Whitchurch Hill [IES]; 18/6/17, Westwood Road (Tilehurst). 2nd record for garden, last seen 2005. [JH]; 01/7/17, Whitchurch Hill [IES]; 08 & 09/7/17, Harcourt Drive (Earley) [NMH]; 08/8/17, Whitchurch Hill [IES]; 25/8/17, Snelsmore [PBL]

70.214 *Macaria liturata,* Tawny-barred Angle, common

Very early: 28/4/17, Snelsmore [PBL]

07/5/17, Westwood Road (Tilehurst). 2nd record for garden. [JH]

70.222 *Petrophora chlorosata,* Brown Silver-line, common

Very late: 02/7/17, Snelsmore [PBL]

70.231 *Apeira syringaria,* Lilac Beauty, local

Second generation: 05/9/17, Harcourt Drive (Earley) [NMH]

70.233 *Ennomos quercinaria,* August Thorn, local

23/7/17, Whitchurch Hill [IES]

70.235 *Ennomos fuscantaria,* Dusky Thorn, common

From 14/7/17 to 1/10/17. 20 records.

High count: 20/9/17, 9, Westwood Road (Tilehurst). Best ever year with 20 specimens; previous best was 2016 with 5 specimens. [JH]

70.243 *Ourapteryx sambucaria,* Swallow-tailed Moth, common

Very early records from Harcourt Drive (Earley) 14/6/17 [NMH]; Mumbery Hill 16/6/17 [PBL]; Westwood Road (Tilehurst) 18/6/17.

70.245 *Alsophila aescularia,* March Moth, common

High counts: Surprisingly high counts to Actinic light at Whitchurch Hill . 30 on 1/3/17, 33 on 13/3/17 [IES}.

70.254 *Agriopis aurantiaria,* Scarce Umber, common

Only 5 records from 14/11/17 to 6/12/17, mostly at Whitchurch Hill to Actinic light. This species seems to be in sharp decline. [NMH]

70.256 *Erannis defoliaria,* Mottled Umber, common

High count: 7/1/17, 39, Whitchurch Hill [IES]

70.264 *Deileptenia ribeata,* Satin Beauty, common

22/6/17 & 5/7/17, Whitchurch Hill [IES]

70.283 *Campaea margaritaria,* Light Emerald, common

High count: 31/5/17, 25, Harcourt Drive (Earley) [NMH]

70.295 *Perconia strigillaria,* Grass Wave, local

6 records from 03/6/17 to 16/6/17. Broadmoor Bottom only. [JL]

70.300 *Comibaena bajularia,* Blotched Emerald, local

11/6/17, Ockwells Park, Maidenhead [PBL]; 15/6/17, Crookham Common SU52296433 [NMH]

70.302 *Hemistola chrysoprasaria,* Small Emerald, local

23/6/17, Dinton Pastures [PBL]; 02/7/17, Harcourt Drive (Earley) [NMH]; 10/7/17, Whitchurch Hill [IES]

Notodontidae

71.007 *Furcula bifida,* Poplar Kitten, local

25/7/17, Whitchurch Hill [IES]

71.010 *Drymonia dodonaea,* Marbled Brown, common

Very early: 30/4/17, Snelsmore [PBL]

71.022 *Ptilodon cucullina,* Maple Prominent, local

01/6/17, Limberlost Farm, Thatcham [PBL]; 29/7/17, Coromandel SU59417682 [NMH]

17/8/17, Thatcham Marsh SU50206675 [NMH (RD)]; 22/8/17, Red Cow [AR]

71.025 *Phalera bucephala,* Buff-tip, common

Very early: 30/4/17, Snelsmore [PBL]

Early: 12/5/17, Westwood Road (Tilehurst). Earliest by 18 days of 23 garden records. [JH]

Erebidae

72.002 *Rivula sericealis*, Straw Dot, common

Very late: 18/10/17, Hill Green, Leckhampstead [PBL]

72.004 *Hypena rostralis,* Buttoned Snout, NB

26/5/17, Westwood Road (Tilehurst). 2nd record for garden, last seen 2009. [JH]

72.009 *Leucoma salicis,* White Satin Moth, local

14/7/17, Waltham Place, White Waltham [PBL]; 15/7/17, Beale Park [PBL]

72.012 *Euproctis chrysorrhoea,* Brown-tail, local

02/7/17, Snelsmore [PBL]; 2/7/17 & 05/7/17, 02 & 11/7/17, Red Cow [AR]

72.013 *Euproctis similis,* Yellow-tail, common

Very late: 14/10/17, Thatcham Marsh SU50386672 [NMH]

72.024 *Phragmatobia fuliginosa,* Ruby Tiger, common

Very late: 23/9/17, Hill Green, Leckhampstead [PBL]

72.030 *Euplagia quadripunctaria,* Jersey Tiger NB

26/8/17, Frogmill, Hurley SU812835 [J.Farnsworth]

72.037 *Thumatha senex,* Round-winged Muslin, local

Early: 27/5/17, Bagnor Marsh [PBL]; 15/7/17, Beale Park [PBL]

72.038 *Cybosia mesomella,* Four-dotted Footman, local

03/6/17, Lane through Snelsmore [PBL]; 15/6/17, 3, Crookham Common SU52296433 [NMH]; 26/6/17, Decoy Heath SU610635 [JL]

72.041 *Lithosia quadra,* Four-spotted Footman NA

26/6/17, Ockwells Park, Maidenhead [PBL]

72.042 *Atolmis rubricollis,* Red-necked Footman, local

15/6/17, Crookham Common SU52296433 [NMH]

72.043 *Eilema depressa,* Buff Footman, local

23/6/17, Dinton Pastures [PBL]; 3/7/17, 02, & 05/7/17 Harcourt Drive (Earley) [NMH]; 16 & 19 & 25/7/17, Whitchurch Hill [IES]; 29/7/17, 06, Coromandel SU59417682 [NMH]; 27/8/17, The Holies,Streatley [PBL]

Very late: 10/10/17, Whitchurch Hill [IES]

72.047 *Eilema caniola,* Hoary Footman NB

23/6/17, Dinton Pastures [PBL]; 09/7/17, Harcourt Drive (Earley) [NMH]; 15/7/17, Beale Park [PBL]; 29/7/17, Coromandel SU59417682 [NMH]

72.052 *Macrochilo cribrumalis,* Dotted Fan-foot NB

26/6/17, Ockwells Park, Maidenhead [PBL]; 04/7/17, Harcourt Drive (Earley). New to garden. [NMH]

72.061 *Schrankia costaestrigalis,* Pinion-streaked Snout, local

15/6/17, 4, Crookham Common SU52296433 [NMH]; 17/8/17, 12, Thatcham Marsh SU50206675 [NMH]; 24/9/17, Snelsmore [PBL]; 29/9/17, Harcourt Drive (Earley) [NMH]

72.066 *Parascotia fuliginaria,* Waved Black NB

02/7/17, Snelsmore [PBL]; 11/7/17, Red Cow [AR]; 15/7/17, Beale Park [PBL]; 3/8/17, Whitchurch Hill [IES]

72.073 *Eublemma parva,* Small Marbled, immigrant

09/7/17, Harcourt Drive (Earley) . New to garden (In fact my first UK record) [NMH]

72.076 *Catocala fraxini,* Clifden Nonpareil, immigrant, recent colonist

23/8/17, Snelsmore [PBL]; 20/9/17, Westwood Road (Tilehurst) . New to garden. [JH]; 24/9/17, Snelsmore [PBL]; 14/10/17, Thatcham Marsh SU50386672 [NMH (Rob Payne)]

Noctuidae

73.036 *Acronicta alni,* Alder Moth, local

12/5/17, Snelsmore [PBL]; 1/6/17, Limberlost Farm, Thatcham [PBL]

73.039 *Acronicta aceris,* The Sycamore, local

16/5/17, Harcourt Drive (Earley) [NMH]; 26/5/17, Red Cow [AR]; 23/6/17, Dinton Pastures [PBL]

73.048 *Panemeria tenebrata,* Small Yellow Underwing, local

24/4/17, Red Cow [AR]

73.070 *Pyrrhia umbra,* Bordered Sallow, local

20/8/17, Decoy Heath SU611633 [JL]

73.076 *Helicoverpa armigera,* Scarce Bordered Straw, immigrant, recent colonist

29/7/17, Coromandel SU59417682 [NMH (PBL)]; 17/8/17, Thatcham Marsh SU50206675 [NMH]; 25/8/17, Red Cow [AR]; 20/9/17, Westwood Road (Tilehurst). 4th record for garden, last seen in 2009. [JH]; 21/9/17, Red Cow [AR]; 18/10/17, Hill Green, Leckhampstead [PBL]; 18/10/17, 02 & 23/10/17 Whitchurch Hill [IES]

73.082 *Cryphia algae,* Tree-lichen Beauty, immigrant

06/7/17, Red Cow [AR];14/7/17, Waltham Place, White Waltham [PBL]

73.084 *Bryophila domestica*, Marbled Beauty. common

late: 4/9/17, Snelsmore [PBL]

73.087 *Spodoptera exigua,* Small Mottled Willow, immigrant

24/6/17 & 18/10/17, Whitchurch Hill [IES]

73.100 *Chilodes maritima,* Silky Wainscot, local

06/7/17, Audrey's Meadow, Newbury [PBL]

73.119 *Helotropha leucostigma,* The Crescent, local

15/7/17, Beale Park [PBL]; 17/8/17, 2, Thatcham Marsh SU50206675 [NMH]; 17/8/17, Thatcham Reedbeds [PBL]

73.124 *Hydraecia petasitis,* The Butterbur, local

17/8/17, 3, Thatcham Marsh SU50206675 [NMH (Martin Evans & Roger Edmondson]

73.134 *Rhizedra lutosa,* Large Wainscot, common

High count: 14/10/17, 26, Thatcham Marsh SU50386672 [NMH]

73.141 *Archanara dissoluta,* Brown-veined Wainscot, local

17/8/17, Thatcham Reedbeds [PBL (RD)]

73.142 *Coenobia rufa,* Small Rufous, local

16/8/17 & 27/8/17, Snelsmore [PBL]

73.192 *Agrochola circellaris*, The Brick, common

High numbers on ivy: Very few moths were found feeding on the abundant ivy at Thatcham on 14/10/17 - one of the National Moth Nights in which moths on ivy was the theme. But when PBL looked at a few isolated patches of ivy in the lane through Snelsmore on 22/10 he found 66 Brick feeding there.

73.197 *Conistra rubiginea,* Dotted Chestnut, NB

09/3/17, Harcourt Drive (Earley) [NMH]; 14/3/17, Westwood Road (Tilehurst). 4th record for garden, last seen 2005. [JH]; 12/4/17, Red Cow [AR]

73.201 *Lithophane socia,* Pale Pinion, local

26/2/17 & 08/3/17, 02 & 09/3/17, Harcourt

Drive (Earley) [NMH]; 30/3/17, Whitchurch Hill [IES]; 04/4/17, Westwood Road (Tilehurst). 3rd record for garden. [JH]; 23/5/17, Red Cow [AR]

Late for Spring: 01/6/17, Limberlost Farm, Thatcham (PBL)[NMH]; 8/10/17, Red Cow [AR]

73.213 *Ipimorpha subtusa,* The Olive, local

16/6/17, Mumbery Hill, Wargrave [PBL]

73.215 *Cosmia affinis,* Lesser-spotted Pinion, local

14/7/17, Waltham Place, White Waltham [PBL]

73.217 *Cosmia pyralina,* Lunar-spotted Pinion, local

23/6/17, Dinton Pastures [PBL]; 15/7/17, Beale Park [PBL]

73.221 *Parastichtis suspecta,* The Suspected, local

02/7/17, Snelsmore [PBL]

73.244 *Orthosia cerasi,* Common Quaker, common

Early: 21/2/17, Harcourt Drive (Earley) [NMH]

Latest Spring records: 2/5/17, Harcourt Drive (Earley) [NMH] & Snelsmore [PBL]

Precocious early November emergence: 9/11/17, Harcourt Drive (Earley) [NMH]

December records: 6/12/17 & 25/12/17, singles, Whitchurch Hill [IES]

73.264 *Lacanobia thalassina,* Pale-shouldered Brocade, common

15/6/17, Crookham Common SU52296433. Not common in our area. [NMH]

73.293 *Mythimna impura,* Smoky Wainscot, common

Late: 23/9/17, Hill Green, Leckhampstead [PBL]

Very late: 14/10/17, Thatcham Marsh SU50386672 [NMH]

73.297 *Mythimna albipuncta,* White-point, immigrant, recent colonist

High count: 21/8/17, 7, Red Cow [AR]

From 26/5/17, Red Cow to 14/10/17, Red Cow [AR]

14 records in all from several sites. Now common. [NMH]

73.302 *Leucania obsoleta,* Obscure Wainscot, local

13/6/17, Harcourt Drive (Earley) [NMH]

73.337 *Cerastis leucographa,* White-marked, local

23/3/17, Bomb site, Bowdown Woods [PBL]; 14/4/17, Whitchurch Hill [IES]; 20/4/17, Bowdown Woods West [PBL]

73.355 *Xestia castanea,* Neglected Rustic, local

23/8/17 & 24/9/17, Snelsmore [PBL]

73.359 *Xestia c-nigrum*, Setaceous Hebrew Character, common

14/11/17, Very late: Hill Green, Leckhampstead [PBL]

Nolidae

74.002 *Meganola albula,* Kent Black Arches NB

25/6/17, Snelsmore [PBL]; 8/7/17, Red Cow [AR]; 15/7/17, Beale Park [PBL]

74.007 *Bena bicolorana,* Scarce Silver-lines, local

20/6/17, Newtown Road Cemetery, Newbury [PBL]; 15/7/17, Beale Park [PBL]

CONTRIBUTORS

Thanks are due to the following members for their submissions:

Paul Black [PBL], Roy Dobson [RD], Ian Esland [IES], Renee Grayer [RG], Norman Hall [NMH],

Jan Haseler [JH], John Lerpiniere [JL] & Tony Rayner [AR]

VERTEBRATES REPORT 2017 by Tony Rayner & Jan Haseler

Our grateful thanks to those who have contributed to this report, with a special mention of John Lerpiniere for his invaluable input. Where numbers are not quoted, assume that one is implied. Full details of bird reports for Reading and Berkshire can be accessed online at the Berkshire Ornithological Club website http://berksoc.org.uk/recording/annual-reports/. Annual reports for years up to 2012 can be downloaded as a PDF, and 2013 can be purchased as a book.
2014-17 reports are in the pipeline.

BIRDS

Exceptional local records

***Aix galericulata* Mandarin Duck**

16/10/17 Two at Benyons Inclosure (SU628632) (JH)

***Coccothraustes coccothraustes* Hawfinch**

24/11/17 Three at Basildon Park (SU608774) (JH) (see The Hawfinch Winter, page 43)

***Phylloscopos inornatus* Yellow-browed Warbler**

08/11/17 One in Cholsey garden (SU592868) (TR)

Seen/heard on local RDNHS field trips or in members' gardens)

***Netta rufina* Red-crested Pochard**

06/12/17 Three at Fisherman's Lake, Sheffield Bottom (SU641699) (KW)

***Perdix perdix* Grey Partridge**

08/05/17 Four in Cholsey meadow (SU592868) (TR)

07/09/17 Two in Cholsey meadow (SU592868) (TR)

***Accipiter nisus* Sparrowhawk**

10/11/17 One in Purley on Thames garden (SU654763) (MV)

06/12/17 Two seen at Hosehill midweek walk, male & female (SU638697 & SU649699) (KW)

***Tyto alba* Barn Owl**

24/11/17 One at Plastow Green garden, in owl box (SU537624) (KW)

***Corvus corax* Raven**

20/09/17 Two at Swyncombe Downs (SU671915) (JH)

17/10/17 One in Cholsey garden, present for 4 days (SU592868) (TR)

26/11/17 One at Bowdown Woods reserve (SU512653) (RD)

***Sitta europea* Nuthatch**

09/12/17 Plastow Green garden, regular daily sightings (SU537624) (KW)

***Certhia familiaris* Treecreeper**

12/03/17 One in Cholsey garden, climbing cottage chimney (SU592868) (TR)

02/12/17 One in Plastow Green garden (SU537624) (KW)

06/12/17 Two at Woolwich Green Lake, Sheffield Bottom (SU644696) (SW)

***Phoenicurus phoenicurus* Redstart**

09/04/17 One in Cholsey garden (SU592868) (TR/RR)

***Anthus pratensis* Meadow Pipit**

21/03/17 60 in Cholsey meadow (SU592868) (TR)

***Pyrrhula pyrrhula* Bullfinch**

17/01/17 One in Purley on Thames garden birdbath (SU654763) (MV)

***Emberiza citrinella* Yellowhammer**

25/11/17 One in Plastow Green garden, feeding with Chaffinches (SU537624) (KW)

***Emberiza calandra* Corn Bunting**

15/02/17 25 on Ridgeway, near Lowbury Hill (SU532826) (JC/ID)

FISH

No records received

AMPHIBIANS

***Bufo bufo* Common Toad**

17/04/17 Cholsey garden (SU592868) (TR)

17/05/17 Beenham, Greyfield Wood (SU580690) (JL)

07/07/17 Fobney Island (SU703711) (JL)

19/09/17 Fobney Island (SU703711) (JL)

29/09/17 Ash Hill, Hosehill (SU650694) (JL)

***Triturus vulgaris* Smooth Newt**

08/03/17 Cholsey garden (SU592868) (TR)

13/06/17 Rectory Farm, Finchampstead (SU785635) (JL)

14/06/17 Englefield, 5 a day market (SU625719) (JL)

***Triturus cristatus cristatus* Great crested Newt**

14/06/17 Englefield (SU625719) (JL)

***Rana temporaria* Common Frog**

10/01/17 Tilehurst garden (SU665742) (JL)

17/02/17 Three at Tilehurst, Westwood Rd (SU666742) (JH)

25/02/17 35 atTilehurst, Westwood Rd, first frogspawn (SU666742) (JH)

17/03/17 Two at Tilehurst, Brookfield School (SU663754) (JL)

08/04/17 Two at Upper Inhams Copse reserve (SU621615) (JH)

11/05/17 Cholsey garden (SU592868) (TR)

21/05/17 Long Copse, Bradfield (SU580727) (JL)

01/08/17 Wargrave Chalk Pit (SU788782) (JL)

12/08/17 100 Acre Piece, Mortimer (SU636649) (JL)

15/09/17 Tilehurst allotments (SU670748) (JL)

16/10/17 Cholsey garden (SU592868) (TR)

REPTILES

***Lacerta vivipara* Common Lizard**

09/03/17 to 01/07/17 A total of 97 sightings at Cholsey (SU592868). Max count of 9 on 20/05/17 (TR)

21/03/17 Two at Padworth Common (SU6164) (JL)

29/08/17 Decoy Heath (SU611633) (JL)

***Anguis fragilis* Slow-worm**

18/02/17 to 29/06/17 A total of 1895 sightings at Cholsey (SU592868). with a maximum count of 126 on 31/03/17 (TR)

10/03/17 to 17/07/17 Tilehurst garden (SU665742), 11 sightings in year (JL)

21/03/17 Four at Padworth Common (SU6164) (JL)

18/04/17 Juvenile under watering can, Tilehurst, Westwood Road (SU666742) (JH)

18/06/17 Two at Tilehurst, Westwood Road

(SU666742) (JH)

28/07/17 Two at Basildon Park, Hidden Valley (SU605772) (JL)

13/09/17 Hosehill LNR (SU648694) (JL)

Natrix natrix **Grass Snake**

21/02/17 to 29/06/17 A total of 263 sightings with a maximum of 18 on 11/04/17 at Cholsey garden (SU592868) (TR)

21/03/17 Padworth Common (SU618648) (JL)

14/04/17 Hosehill LNR (SU651697) (JL)

28/09/17 Two at Hosehill LNR (SU6569) (JL)

Vipera berus **Adder**

04/06/17 Padworth Common (SU618648) (JL)

08/08/17 Padworth Common (SU619647) (JL)

07/09/17 Wokefield Common (SU651663) (JL)

BATS

Pipistrellus pipistrellus **Common Pipistrelle**

27/04/17 Two over Cholsey garden SU592868) (RR)

01/07/17 to 10/07/17 Max of 3 at Cholsey garden SU592868) (TR)

Nyctalus noctula **Noctule**

01/07/17 to 09/07/17 Max of 5 foraging over meadow Cholsey meadow (SU592868) (TR)

INSECTIVORES

Erinaceus europaeus **Hedgehog**

23/04/17 Lambourn (SU332784) (JL)

16/05/17 Eling (SU523740) (JL)

06/09/17 Garden Harcourt Drive, Earley at 22.30 hr (SU735711) (RG)

03/12/17 Garden Harcourt Drive, Earley at 22.25 hr (SU735711) (RG)

Sorex araneus **Common Shrew**

20/02/17 to 13/04/17 Six sightings at Cholsey garden (SU592868) (TR)

14/04/17 Hosehill LNR butterfly bank (SU648694) (JL)

20/05/17 Hosehill LNR butterfly bank (SU648694) (JL)

24/06/17 Hosehill LNR (SU648695) JL

Talpa europaea **Mole**

30/01/17 Curridge (SU494722) (JL)

30/01/17 Englefield (SU623731) (JL)

14/02/17 Hermitage (SU518735) (JL)

CARNIVORES

Meles meles **Badger**

01/01/17 Englefield (SU624730) (JL)

03/01/17 Winterbourne Wood (SU443722) (JL)

14/02/17 Upper Basildon (SU592766) (JL)

26/04/17 Englefield (SU632727) (JL)

03/06/17 Theale (SU657710) (JL)

17/07/17 Westridge Green (SU562796) (JL)

18/09/17 Cornwell Copse, Tilehurst (SU657740) (JL)

17/10/17 Ashampstead Common (SU582752) (JL)

27/11/17 Road kill at M4 bridge by Moor Copse (SU6375) (JL)

***Mustela nivalis* Weasel**

16/04/17 One crossing road near Stitchens Green (SU580805) (TR/RR)

***Mustela putorius* Polecat/Ferret**

25/05/17 Woodland St Marys (SU337738) (JL)

***Vulpes vulpes* Fox**

12/01/17 Tilehurst (SU665742) (JL)

16/01/17 One in garden at Harcourt Drive, Earley (SU735711) panicked a Pheasant (RG)

19/01/17 One at Sulham (SU652738) (JH)

04/02/17 Garden Harcourt Drive, Earley) (SU735711) (RG)

07/02/17 Garden Harcourt Drive, Earley) (SU735711) (RG)

21/03/17 Padworth Common (SU618648) (JL)

09/05/17 Pingewood (SU693707) (GC)

18/05/17 Southcote (SU683719) (GC)

21/05/17 Yattendon (SU557743) (JL)

02/06/17 Burghfield (SU677703) (GC)

06/08/17 Ashampstead Green (SU573767) (JL)

06/08/17 Emmer Green (SU717761) (GC)

19/09/17 Fobney Island (SU703711) (JL)

07/11/17 Tilehurst, Long Lane (SU657756) (JH)

29/11/17 Garden Harcourt Drive, Earley (SU735711) (RG)

08/12/17 Garden Harcourt Drive, Earley (SU735711) (RG)

09/12/17 One barking at 21:30 hrs in field by Plastow Green garden (SU537624) (KW)

27/12/17 Garden Harcourt Drive, Earley (SU735711) (RG)

29/12/17 Garden Harcourt Drive, Earley (SU735711) (RG)

***Lutra lutra* Otter**

21/01/17 Cholsey, River Thames (SU606874), seen by night fisherman (Will)

26/01/17 Two partial Otter prints seen at Moor Copse reserve (SU635742) (AB)

07/02/17 One filmed in garden of Boat House pub at Wallingford (SU609895) (NM)

24/03/17 One seen at 08:30 in Hithercroft Brook, Cholsey (SU586874) (ABo)

28/06/17 Family of five seen from boat at Cholsey, River Thames (SU602855) (Tina)

***Rattus norvegicus* Brown Rat**

04/06/17 Garden Harcourt Drive, Earley (SU735711) (RG)

29/08/17 Padworth Common (SU618648) (JL)

17/10/17 Thatcham (SU543668) (JL)

20/10/17 Tilehurst allotments (SU670748) (JL)

28/11/17 Three in garden at Harcourt Drive, Earley (SU735711) (RG)

DEER

***Muntiacus reevesi* Muntjac**

12/02/17 One at Basildon Park (SU603779) (JH)

21/03/17 Burghfield (SU665701) (JL)

13/04/17 Padworth Common (SU618648) (JL)

23/04/17 Emmer Green (SU713768) (GC)

12/06/17 Emmer Green (SU713768) (GC)

15/06/17 Two at Barefoots Copse, Tilehurst (SU656743) (JL)

27/06/17 Emmer Green (SU714765) (GC)

29/06/17 Emmer Green (SU714765) (GC)

18/07/17 Pingewood (SU678700) (GC)

17/08/17 Two at Emmer Green (SU714765) (GC)

01/09/17 Binfield Heath (SU748784) (GC)

11/09/17 Cholsey (SU592868) (RR)

18/09/17 Tilehurst, Little Heath Rd (SU655735) (JH)

02/10/17 Emmer Green (SU716759) (GC)

14/10/17 Cholsey (SU592868) (TR)

15/11/17 Streatley (SU599794) (JL)

16/11/17 Two at Benyons Inclosure (SU620635) (JH)

18/11/17 Sheffield Bottom (SU654696) (JH)

***Capreolus capreolus* Roe Deer**

01/01/17 Four at Cholsey (SU592868) (TR)

23/01/17 Five at Basildon Park (SU604780) (JH)

15/02/17 Two at Lollingdon Hill, Cholsey (SU570847) (PC)

26/02/17 Three at Ridgeway, near Lowbury Hill (SU532826) (JC/ID)

13/03/17 Two at Hazeley Heath (SU752584) (JH)

01/04/17 Goddards Green (SU665666) (JH)

03/04/17 Binfield Heath (SU749785) (GC)

03/04/17 Woolhampton (SU584675) (JL)

13/06/17 Decoy Heath (SU610634) (JL)

15/08/17 Rectory Farm, Finchampstead (SU784634) (JL)

30/09/17 Bradfield Hangers (SU575728) (JL)

29/10/17 Hosehill LNR (SU650693) (JL)

12/11/17 Two at Burchetts Green (SU832803) (GC)

16/11/17 Four at Cholsey (SU592868) (TR)

***Dama dama* Fallow Deer**

26/02/17 One at Hazeley Heath (SU752584) (JH)

02/09/17 Four at Old Street, Peasemoor (SU470772) (JH)

06/10/17 32 at Chapel Farm, Hill Green (SU453757) (JH)

02/12/17 18 at Ashampstead (SU562763) (JH)

RABBITS & HARES

***Lepus europaeus* Brown Hare**

12/02/17 Burghfield (SU667798) (JL)

05/05/17 Bradfield (SU583737) (JL)

25/11/17 Plastow Green (SU536620) (KW)

30/11/17 Two at Farnborough (SU450827) (JH)

Daily Cholsey (SU592868) (TR/RR)

***Oryctolagus cuniculus* Rabbit**

29/01/17 Cholsey (SU592868) (TR/RR)

16/03/17 North Street (SU634724) (JL)

30/03/17 Two at Englefield (SU628711) (JL)

11/06/17 Padworth (SU619657) (JH)

17/10/17 Ashampstead Common (SU586750) (JL)

RODENTS

***Sciurus carolinensis* Grey Squirrel**

Up to three seen daily in garden at Harcourt Drive, Earley (SU735711) (RG)

One or two seen daily in Cholsey garden (SU592868) (TR/RR)

09/03/17 Lousehill Copse, Tilehurst (SU678736) (JL)

28/04/17 Yattendon (SU539755) (JL)

21/05/17 Mirams Copse, Bradfield (SU577730) (JL)

28/11/17 Two in Tilehurst garden (SU665742) (JL)

09/12/17 Two at St Mary's churchyard, Reading (SU714733) (JL)

***Apodemus sylaticus* Wood Mouse**

11/05/17 Plastow Green garden (SU537624) (KW)

20/05/17 Cholsey (SU592868) (TR)

27/06/17 Cholsey (SU592868) (TR)

***Muscardinus avellanarius* Hazel Dormouse**

Eight sightings reported from Basildon Park (SU6058) (GN)

***Micromys minutes* Harvest Mouse**

18/10/17 Fobney Island (SU703711) (JL)

***Microtus agrestis* Field Vole**

30/01/17 to 02/06/17 37 sightings Cholsey (SU592868) (TR)

17/03/17 Hosehill LNR (SU652696) (JL)

20/05/17 Hosehill LNR (SU651696) (JL)

28/07/17 Basildon Park (SU605772) (JL)

13/09/17 Hosehill LNR (SU648695) (JL)

***Clethrionomys glareolus* Bank Vole**

04/01/17 to 19/01/17 Under bird feeders at Cholsey (SU592868) (TR/RR)

20/02/17 to 02/06/17 63 sightings at Cholsey (SU592868) (TR)

05/03/17 Caversham Park (SU733762) (JL)

11/03/17 Hosehill LNR (SU648694) (JL)

22/05/17 Fobney (SU700710) (JL)

02/11/17 Hosehill LNR (SU650698) (JL)

***Arvicola terrestris* Water Vole**

07/04/17 Cholsey Brook (SU580860) (BT)

CONTRIBUTORS

Many thanks go to the contributors of records who make the report possible:

AB Anne Booth; **ABo** Andy Bourland; **PC** Paul Chandler; **JC** Julia Cooper; **GC** Gordon Crutchfield; **RD** Roger Dobbs; **ID** Ian Duddle; **RG** Renée Grayer; **JH** Jan Haseler; **JL** John Lerpiniere; **GN** Granville Nicholls; **RR** Ro Rayner; **TR** Tony Rayner; **BT** Barbara Tester; **MV** Marion Venners; **JW** James Watkins; **KW** Ken White; **SW** Sarah White.

Also, from the Otter sightings, **Tina**, a quad rower and **Will**, a night fisherman.

THE WEATHER IN READING DURING 2017 by Roger Brugge

Department of Meteorology, University of Reading

Averages and anomalies mentioned in this report refer to the climatological period 1981-2010.

The year of 2017 was milder than normal, with rainfall and sunshine totals close to average overall. It was the warmest and wettest year for three years at the university – and also the dullest for seven years (but only by a few hours of bright sunshine).

January

January was the coldest month of the year, with over half the mornings with an air frost in 2017 occurring this month. It was the coldest January since 2010 with snow falling on two days. The lowest temperature of the year (-6.1 °C) occurred on the 22nd, while the month was both slightly wetter and sunnier than normal.

February

2017 had the mildest February for three years while the highest temperature of 16.0 °C has been surpassed only twice in February in the past 20 years. There were only two days with an air frost, compared to the nine such days in a typical February. The 14th-23rd was a mild spell – culminating in some damaging wind gusts in a windy day on the 23rd; these were the strongest gusts of the year and the wind reached gale force in parts of the open country outside of the town. It was a dull, cloudy month with just 56 hrs of sunshine; in the past 30 years only 1991-1993 inclusive and 2010 have had a duller February.

March

March was a mild, sunny and dry month. In fact, since temperature records began in 1908 at the University, only the March months of 1938 and 1957 have been milder (both by just 0.3 degC). The temperature rose to 20.3 °C on the 30th – the highest March temperature for five years – while nine days reached a temperature of 15 °C. No air frosts were recorded during the month – for the first time in March since 1959 and 1960. After the first 12 days, the month was generally dry.

April

April was mild, but overall 0.2 degC colder than the preceding March with one day of air frost occurring on the 27th. This was the first air frost since 11 February and it was also the last air frost of the winter-spring seasons. On the 9th the temperature rose to 23.2 °C, the highest in April since 2011. Despite the lack of air frost this month, a ground frost was recorded on 22 mornings due to many clear nights – only January with 23 ground frosts had more such mornings in 2017. Sleet fell on the 25th and 26th but April was generally dry and sunny. 8.1 mm of precipitation made this the driest month of 2017 while April has only been drier (since 1901) in the years 1912, 1938, 1954, 1984, 2007 and 2011. The clear nights were followed by many clear days and 204 hrs of sunshine during the month with high pressure prevailing for much of the month.

May

May was milder than usual, but also slightly duller and wetter than normal. It was duller than April, with two sunless days, and just missed an air frost on the 10th, although that morning saw a sharp ground frost, one of three ground frosts that occurred during the month. In contrast, the air temperature of 26.7 °C on the 26th (part of a week-long hot spell when 20 °C was reached each day) was the highest air temperature in May since 2010. Almost half the month's rain (30.3 mm) fell in 18 hours on the 16th-17th.

June

June was a mild month, after some cool days at the start of the month – including the 4th when a ground frost occurred. It was the warmest June since 1976 and only the Junes of 1940 and 1950 have also been milder since 1908. The hottest day of the year, the 21st, saw the temperature rise to 32.5 °C, the fourth consecutive day to reach 30 °C and the highest June temperature since 1976. Apart from 1976, only 1917 has seen a higher June temperature since 1908. June was also a sunny and dry month but half the rain fell on the 5th; during the 16 days of the 11th-26th no measureable rain fell. June was the sunniest month of 2017 – but with only 16 hrs more sunshine than occurred in April.

July

July was slightly warmer than average, and the final month of a run of six consecutive warmer-than-average months. Only one day, the 6th, passed 30 °C. There were many mild nights and only on the 23rd did the temperature fall below 10 °C. After the 18th it turned cooler – the highest temperature after this date was just 23.4 °C. July was the wettest month of the year with 122.5 mm of rain falling – the total fall was over two and half times the normal for July with 45 mm falling on the 18th and early on the 19th during violent thunderstorms, making this 24 hour period the third wettest since 1901 at the university. In addition 33.5 mm fell on the 11th during almost 14 hours of rainfall. Since 1901, only the Julys of 1915, 1917, 1918 and 1920 (when 154.7 mm fell) were wetter than July 2017. Rainfall amounts around the Reading area were very dependent upon the falls during the thunder-storms of the 18th-19th.

August

August was cooler than average by 0.9 degC although as late as the Bank Holiday Monday (the 28th) the temperature rose to 26.9 °C. This made it the warmest late August Bank Holiday Monday on record in Reading, yet two days later the temperature could only rise to 15.1 °C. The month was slightly wetter than normal, while sunshine totals amounted to the average for the month.

September

September was also colder than average with the first autumn ground frost occurring on the 17th. However, there were several warm nights – during the final six nights the temperature did not drop below 10.2 °C. On the 22nd the air temperature fell to a low 3.5 °C. The month was also wetter than average – the wettest September since 2000.

October

October was a mild, dull and very dry month. As late as the 16th the temperature reached 20.8 °C while on the 30th it dipped down to 0.5 °C. The 16th also brought a reddish-looking Sun and dark clouds for several hours during the day, the dimming being the result of the mixing of Saharan dust and smoke from wildfires in Iberia in the air above southern Britain. The rainfall total for the month at 15.6 mm meant that 2017 was the equal seventh driest October since 1901 after 1931, 1947, 1950, 1969, 1970 and 1978.

November

November was also a dry month but colder than normal – although still milder than in 2016. It was also quite a sunny month with only four sunless days. On the 30th the temperature only rose to 4.0 °C, making this the coldest November day for seven years. Just 48 mm of rain fell during the month – the driest November since 2011. November, along with the preceding October and following December, was a month dominated by winds from the west and south-west; the final quarter of the year saw few days with winds blowing from the east.

December

December gave Reading the only lying snow of 2017 in the town (a depth of about 2 cm was reached on the 10th at the university) – but many places just north of the town had a greater depth while to the south of the M4 there was little snow at all on the ground. Further snow fell on the 27th – and also on the 5th in some places around the town. December was wet overall with falls on 19 days.

Temperatures during the month fluctuated frequently from warm to cold, and back again. Despite the 9 days with air frost, the month was marginally warmer than normal. With 16 sunless days, December turned out to be the dullest month of the year by quite a margin.

This report was compiled using the daily weather observations made at the University of Reading climatological station – almost all of these being made by our observers, Mike Stroud and Selena Zito. The University also operates an automatic weather station that gathers weather information continuously. Details can be seen at : **http://www.met.reading.ac.uk/weatherdata/** - there is even a mailing list that you can subscribe to in order to have daily weather reports sent direct to you inbox. The history of Reading's weather since 1901 can be discovered in ***One hundred years of Reading Weather*** by Roger Brugge and Stephen Burt.

TEMPERATURE

	Mean max temp	Mean max anomaly	Mean min temp	Mean min anomaly	Mean temp	Mean temp anomaly	Highest Max temp	Date	Lowest Max temp	Date	Highest Min temp	Date	Lowest Min temp	Date	Lowest grass Min temp	Date
	°C	°C	°C	°C	°C	°C	°C		°C		°C	°C	°C		°C	
J	7.4	-0.3	0.0	-1.9	3.7	-1.1	11.1	31	0.7	26	7.9	8	-6.1	22	-11.5	22
F	9.4	1.4	3.8	2.1	6.6	1.8	16.0	10	1.6	10	10.5	22	-2.4	6	-7.8	6
M	13.3	1.1	5.8	2.3	9.6	2.5	20.3	30	8.7	1	10.9	30	1.0	23	-4.2	17
A	14.6	1.1	4.3	-0.4	9.4	0.3	23.2	9	10.5	25-27	9.1	15	-0.6	27	-8.9	27
M	18.4	1.4	9.1	1.4	13.8	1.4	26.7	26	11.6	3	14.4	17	0.1	10	-5.8	10
J	22.2	2.2	12.3	1.8	17.3	2.0	32.5	21	15.8	5	16.6	22	7.1	4	-0.6	4
J	22.4	0.0	13.6	0.9	18.0	0.4	31.1	6	18.1	29	17.5	6	9.4	23	4.0	23
A	20.8	-1.3	12.0	-0.5	16.4	-0.9	26.9	28	15.0	9	15.6	12	6.9	31	0.1	31
S	18.0	-1.0	10.1	-0.2	14.1	-0.5	21.8	4	15.1	16	15.1	5	3.5	22	-1.6	22
O	16.1	1.2	9.5	1.9	12.8	1.6	20.8	16	12.3	30	15.3	14	0.5	30	-5.0	30
N	10.6	-0.1	3.7	-0.7	7.2	-0.3	15.0	1,22	4.0	30	11.2	22	-2.0	25	-8.1	25
D	8.4	0.5	2.4	0.2	5.4	0.4	14.0	30	2.4	10,11	9.0	7	-4.1	12	-9.6	12
2017	**15.2**	**0.7**	**7.2**	**0.5**	**11.2**	**0.6**	**32.5**	**21Jun**	**0.7**	**26Jan**	**17.5**	**6Jul**	**-6.1**	**22Jan**	**-11.5**	**22Jan**

PRECIPITATION

	Total precipitation	% of mean precipitation	No. days with 0.2mm or more	No. days with 1.0mm or more	Greatest fall in 24 hrs	Date	No. days with air frost	No days with ground frost	No. days with snow /sleet falling	No days with 50% ground snow cover	No days with thunder	No days with ice pellets/ small hail	No days with hail over 5mm diam	No days with fog at 0900 GMT
	mm	%	days	days	mm		days	days	days	days	days	days	days	days
J	69.3	115	15	11	13.8	10	18	23	2	0	0	0	0	3
F	30.2	74	16	9	6.4	17	2	14	4	0	0	0	0	1
M	35.2	79	17	11	6.5	27	0	11	0	0	1	0	0	0
A	8.1	17	9	3	2.5	15	1	22	2	0	0	2	0	0
M	62.4	135	12	10	20.2	10	0	3	0	0	3	0	0	0
J	37.5	84	10	5	19.4	22	0	1	0	0	2	0	0	0
J	122.5	267	13	10	45.1	12	0	0	0	0	2	0	0	0
A	59.3	113	15	10	12.9	1	0	0	0	0	2	1	0	0
S	76.5	152	20	17	12.7	15	0	2	0	0	0	0	0	1
O	15.6	22	10	4	5.4	15	0	3	0	0	0	0	0	0
N	48.0	72	12	7	15.5	8	4	17	0	0	0	0	0	2
D	77.8	123	19	13	13.0	10	9	16	4	2	0	0	0	0
2017	**642.4**	**101**	**168**	**110**	**45.1**	**18Jul**	**34**	**112**	**12**	**2**	**10**	**3**	**0**	**7**

SUNSHINE & SOIL TEMPERATURE

	Total sunshine	% of average sunshine	Greatest daily sunshine total	Date	No. of sunless days	Mean 10cm soil temp	Mean 30cm soil temp	Mean 100cm soil temp
	hrs	%	hrs		days	°C	°C	°C
J	64.6	114	6.2	20	13	2.4	4.1	6.5
F	56.2	74	8.5	13	9	5.2	6.5	6.8
M	119.8	110	10.5	25	4	7.6	8.8	8.7
A	201.7	126	12.3	18	0	10.5	10.9	10.5
M	170.5	91	14.0	26	2	14.6	13.4	12.1
J	217.6	115	13.6	14	1	19.1	17.3	15.3
J	177.8	90	12.5	5	2	19.1	18.6	16.9
A	192.2	100	12.8	10	3	17.1	17.8	17.0
S	125.3	91	9.8	1	2	14.0	15.9	16.2
O	87.6	82	8.0	3	7	12.0	14.1	14.9
N	70.4	111	6.1	6	4	6.5	9.8	11.9
D	38.6	84	5.8	1	16	4.2	6.4	8.7
2017	**1522.3**	**100**	**14.0**	**26 May**	**63**	**11.1**	**12.0**	**12.2**

WIND DETAILS

	No.days with gales	No. days with Northerly winds	No. days with NE'ly winds	No. days with Easterly winds	No. days with SE'ly winds	No. days with Southerly winds	No. days with SW'ly winds	No. days with Westerly winds	No. days with NW'ly winds	No. days with calm winds at 0900 GMT
	days	days	days	days	days	days	days	days	days	days
J	0	4	2	7	1	4	2	8	1	2
F	0	3	3	3	1	5	5	6	1	1
M	0	1	4	1	4	2	7	10	2	0
A	0	6	4	3	1	2	4	4	6	0
M	0	1	5	9	3	5	4	3	1	0
J	0	0	3	4	2	3	6	12	0	0
J	0	4	1	3	1	3	9	6	4	0
A	0	6	1	1	2	3	5	10	3	0
S	0	1	4	0	4	2	9	7	3	0
O	0	3	1	1	1	1	10	11	3	0
N	0	3	0	0	1	2	8	10	6	0
D	0	1	1	1	0	2	12	9	5	0
2017	**0**	**33**	**29**	**33**	**21**	**34**	**81**	**96**	**35**	**3**

Tidgrove and Higher Level Stewardship Farming by **Andrew Bolton**

The Tidgrove landholding of approximately 200 acres / 80Ha is situated in the North Wessex Downs Area of Outstanding Natural Beauty (AONB), with nearby villages of Hannington, Whitchurch and Overton. It is on Cretaceous chalk downland on the dip slope of the North Hampshire Downs, at an altitude around 500 feet. There is significant archaeological interest here with remnants of an Iron Age settlement and enclosure that was detected by soil marks and slight earthworks, plus finds of ceramic remains dating from the 1st century BC to 4th century AD. In the Medieval period, King Henry II is recorded as having built a hunting lodge with stables nearby and the archaeological excavations that took place on the farm here in 2003 strongly suggest that Tidgrove is this site. Evidence for an earlier Romano-British farmstead on the ridge to the west of the modern farm was also found during this dig.

The farmland at Tidgrove has become an important site for biodiversity, despite being a regular arable farm until about 30 years ago when it was taken out of production and put into a long term habitat restoration scheme. Large areas of the site naturally regenerated into rough grassland and scrub. The site is now in its 4th year of a ten year **Higher Level Stewardship** (HLS) agreement which is benefitting a wide range of flora and fauna, particularly breeding and wintering birds. The HLS aims to restore areas of chalk grassland by the use of species rich seed mixes of local provenance, together with light cattle grazing to browse the grasses and scrub, and create patches of bare ground. The parasitic Yellow Rattle *Rhinanthus minor* is being used to help control grasses.

The Management Plan calls for a mosaic of **20% scrub and 80% grassland** being maintained throughout the site. Scrub management is one of the key tasks to avoid the site reverting to secondary woodland and losing its value as holding significant open areas of herb rich chalk grassland. Belted Galloway cattle help to control scrub regeneration by browsing and trampling, but, from time to time blocks of mature scrub need to be removed mechanically. The presence of **scrub** is very important for breeding birds like Yellowhammer *Emberiza citrinella* and Whitethroat *Sylvia communis* in terms of a nesting and invertebrate food resource, and for wintering birds such as Redwing *Turdus iliacus* & Fieldfare *T. pilaris* in terms of shelter and provision of a berry crop.

Another important habitat feature at Tidgrove is **fallow plots** of largely bare ground with some annual weeds developing through the season. These areas provide the preferred nesting and foraging habitat for Stone Curlew *Burhinus oedicnemus* and Lapwing *Vanellus vanellus*. A cultivated area for rare arable plants holds, amongst others, Red Hemp-nettle *Galeopsis angustifolia*. Good numbers of other farmland birds foraging here include Yellowhammer, Linnet Linaria cannabina and Skylark *Alauda arvensis*, with Willow Warbler *Phylloscopus trochilus* which inhabit the older scrubby areas. Species pausing briefly on migration include Wheatear *Oenanthe oenanthe*, Whinchat *Saxicola rubetra* and Stonechat *S. torquata*, Golden Plover *Pluvialis apricaria*, Short-eared Owl *Asio otus* and occasional birds of prey.

The list of Lepidoptera has been growing in recent years, with 28 species of butterflies recorded. Some highlights include Green Hairstreak *Callophrys rubi*, Common Blue *Polyommatus icarus*, Brown Argus *Aricia agestis*, Small Copper *Lycaena phlaeas*, Marbled White *Melanargia galathea*, and Large Skipper *Ochlodes sylvanus*, as well as the occassional Dark Green Fritillary *Argynnis aglaja* and Small Blue *Cupido minimus*. Recent moth records include Small Yellow Underwing *Panemeria tenebrata*, Wood Tiger *Parasemia plantaginis*, *Pyrausta despicata* and *Nemophora metallica*.

The aim is to improve and create more **habitat niches** in order to attract and sustain a wider range of butterflies and moths. A new project for 2017/2018 is the creation of a large area with the topsoil removed to create a **butterfly scrape**, where the bare ground will enable a rise in temperature to help speed development of early life cycle stages as well as increasing the activity of adult butterflies.

In the next few years the range of chalk downland flower species should increase as further sowing and subsequent extensive colonisation of them takes place, hand in hand with the planned increase of invertebrates, to deliver the desired goal of a full chalk grass downland habitat.