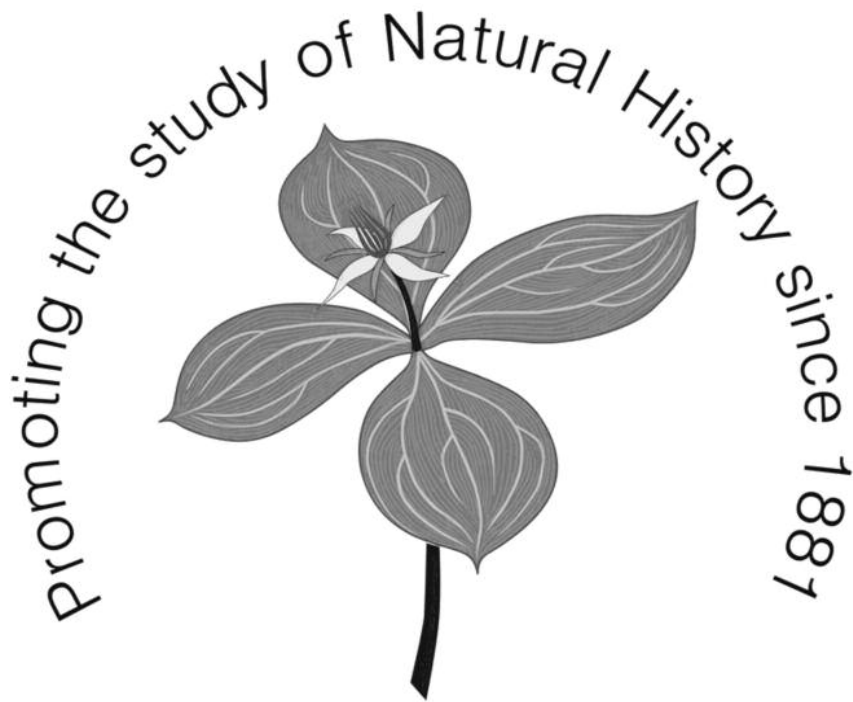


The Reading Naturalist

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THE READING NATURALIST

No 68 for the year 2015

The Journal of the
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Thanks go to all the contributors for their efforts in meeting the deadlines whilst carrying on with busy lives. The Honorary Recorders do a fantastic job and are totally reliant on all of us to send them information during the year.

Special thanks go to Jan, Rob, Renée, Laurie and Sheelagh for the records of the walks, excursions and meetings.

So it is time to get your thinking caps on about interesting articles for next year. The spring, summer and autumn stretch ahead to inspire you in your particular field of interest. So don't forget to document and photograph those interesting expeditions whether they are near or far.

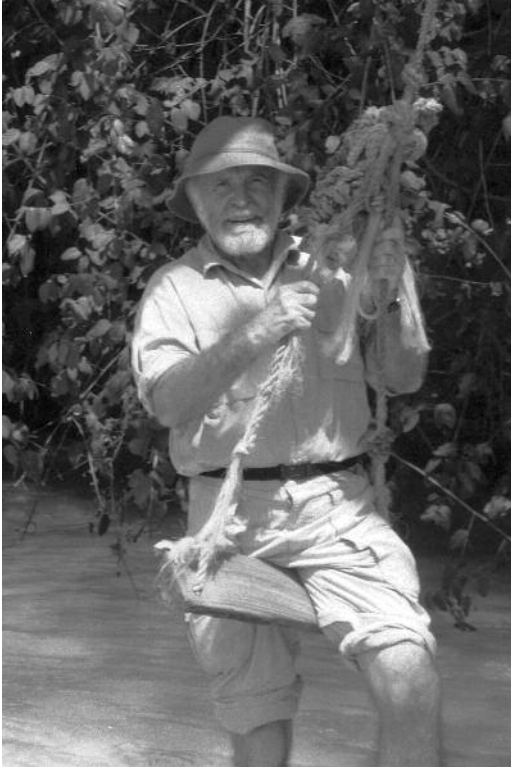
Chris Ash (Hon. Editor)

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OBITUARY

MARTIN SELL - 1939 2015



Martin Sell was born in 1939 and was true to his twin great loves of birds and trains from his student days onwards. He was a notable twitcher with an annual pilgrimage to the Scilly Isles for the autumn migration and a willingness to travel across the country at a moment's notice to track down rarities. He took early retirement from British Rail and made full use of his hours and the very convenient rail pass!

However, Martin was much more than an ornithologist. He had a wide range of interests from all aspects of biodiversity to cultural values and politics. These shared interests took him and his wife Judy across the world, often as some of the first tourists to visit an area and test the potential for ecotourism. They were willing to walk long distances, climb every mountain and stay in everything from luxury hotels to local shacks to see particular species in their natural habitats and share in the local culture. They got up before dawn to climb through bamboo forests to find pandas in China: visited Iran in the short period between different sets of western sanctions, checked out the Amazon and did a mammoth journey from the Antarctic up to Ascension Island, visiting isolated island groups on the way and maximising the penguin count. Their only real disappointment was a

holiday to see snow leopards which failed to find a single one; however their son sorted this out by taking them on a day trip to Marwell Zoo!

This wide ranging interest and knowledge in wildlife and conservation made Martin a key volunteer for many local and national charities. He was a leading light in BOC and BBOWT giving talks and leading walks as well as doing practical work and serving on their committees, including providing 24 hour guarding of the monkey orchids at Hartslock when numbers meant their survival was threatened and there was a real risk that thieves would dig them up overnight.

Martin first became a member of our committee about 1970 and was a regular participant as an ordinary member, he was the Excursion Secretary from 1972 - 1982 and served as President twice.

Until his health declined Martin regularly led walks for RDNHS for more than 20 years. He was a superb ornithologist, an excellent local botanist, and a brilliant teacher with endless patience. Over the years, Martin has shown the local wildlife to many of RDNHS's members, and given us many an expert talk on how to identify those LBJs (little brown jobs). His popular annual, January, full day trip, took us to see waders, geese and gulls at Pagham harbour (and he could spot the few Mediterranean Gulls within the huge flocks of black headed and herring gulls) or to Ibsley Bridge for all three species of swans, more water and woodland birds at Blashford Lakes and then the chance to see the pre-dusk assembly of Hawfinches at Blackwater Arboretum in the New Forest.

Above all, Martin was a kind man with a great sense of humour who was always willing to share his knowledge and ideas with experts and beginners alike. He is greatly missed by all who met him and enjoyed his company.

PRESIDENTIAL MUSINGS

Jan Haseler

Looking back over the past year, field trips with Reading and District Natural History Society provided many enjoyable encounters with wildlife in the local area, but my most memorable wildlife sighting was in a copse at Burghfield Common in July. I coordinate butterfly recording in a 10 x 10 km square of West Berkshire for the Upper Thames Branch of Butterfly Conservation. Over a 5-year atlas period, I aim to visit each tetrad (that's a 2 x 2 km square) at least once in each season to gain as comprehensive a picture as possible of the distribution of butterfly species in the area. Butterfly recorders have a tendency to concentrate on the best sites where the rarer butterflies can be seen, but for the atlas, coverage is also needed for the common butterflies in the wider countryside and in the towns and villages. The eastern boundary of my 10K square runs from Stanford End, where the River Loddon flows into Berkshire, to Green Park in South Reading. The western boundary runs from a little to the east of Beenham down to the Hampshire border near Tadley.

If the weather is suitable, I head out in my lunch break to one of the tetrads in my 10K square and see what butterflies I can find. Tuesday 28 July 2015 was a day of intermittent sunshine with partial cloud cover. My target area was a copse at the north of end of Burghfield Common, where I was hoping to find 2 of the special summer woodland butterflies, White Admiral and Silver-washed Fritillary. A footpath leads westwards from the Reading Road, across a small field and then down through the woods towards Pondhouse Farm. Silver-washed Fritillary was easy – there was a big bank of brambles and thistles at the edge of the field and clouds of Gatekeepers and Meadow Browns were nectaring on the bramble blossom. Flying along the woodland edge and visiting the brambles was a big orange Silver-washed Fritillary. I continued along the footpath and into the woods. The path drops steeply down through the woods. Tree-felling had taken place the previous winter on the side of the valley above the path and I thought that there would be good visibility across the clearing from the top of the slope. Honeysuckle, the caterpillar food-plant of the White Admiral, was draped over some of the trees, so I was hoping that it might be a good place to find it. The sun had disappeared behind the clouds, so I sat down on a tree stump at the top of the slope and waited for it to come out again. (Butterflies have a tendency to vanish when it's cloudy. Then when the sun comes out again, they reappear from nowhere.)

After a few minutes, I became aware of a scuffling noise to my right. Looking slowly round, I saw a Badger about 30 metres away, rooting through the undergrowth. It didn't look as big as I was expecting, so perhaps it was a youngster. It appeared to be completely unaware of my presence, and continued for several minutes to forage on the woodland floor. Then perhaps it caught a trace of my scent, because it abruptly turned away and trotted out of sight. I have never seen a Badger in broad daylight before and was entranced by the encounter. Are Badgers becoming more common in our area? In the last few years, we have seen signs of them in our Tilehurst garden and neighbours have reported sightings. Anyway, eventually the sun came out again and butterflies started to fly through the clearing. I added Large and Green-veined White, Holly Blue and Ringlet to the tetrad count. There was no sign of a White Admiral – it was probably wishful thinking on my part to hope it was there in the first place, although I have seen it before in woods which are not very far away.

MEMBERSHIP

Norman Hall, Ian Duddle

Membership figures as they stand at the end of December 2015

Single members	75
Family/Couples	78
Total	153

of which there were 18 new members.

Kim & Simon Andrews	Linda Cairns	Heather E J Dunthorne
Sheila Hindshaw	Julia Huggins	Rosemary James
Barrie & Claire Neech	Lesley Pace	Oliver Oglesby
Andy & Mandy Pope	John & Irene Simpson	John Arthur Buxton
Maria and Robert Newham		

MEMBERS' OBSERVATIONS

Julia Cooper, Rob Stallard

6 Jan

Tony Rayner - Commented that he had not seen any Greenfinches recently.

Michael Keith-Lucas - Commented that he had not seen any Fieldfares or Redwings although some other members of the audience said that they had seen some.

20 Jan

Fay Newbery - Found powdery mildew producing asexual spores on Sonning Farm (unusual for winter).

Roger Frankum - Seen in Upper Bucklebury an unusual bird which was a cross between a Goldfinch and a Canary (probably an escape).

Tricia Marcouse - A milder spell of weather had awoken a Small Tortoiseshell butterfly in her house

3 Feb

Jenny Greenham - Snow Bunting on bird table 21st Dec in Thatcham garden

John Postlethwaite - Two female Blackbirds in a fearsome battle holding each other in headlock with a male looking on who departed with the victor.

Tony Rayner - Two independent, reliable observations of Otters seen at Cholsey 23/1 and Moulsoford 25/1

17 Feb

Chris Ash - Blue tit with beak 1" long in garden (Binfield Heath).

Alan Parfitt - Booming Bittern reported at Otmoor.

Alice Ayers - Large Bumblebee in garden (Earley), possibly a queen. Michael Keith-Lucas also reported seeing Bumblebees.

3 Mar

Jane Sellwood - noted lack of Toad movement so far this year in South of Reading and Bracknell area.

Jan Haseler - has frogs in her pond in Tilehurst. Michael Keith-Lucas also has frogs, one was caught by his cat.

Graham Saunders - has seen about 20 Newts, mostly Palmate, in his pond in Pamber Heath.

Fiona Cummins – hibernating Small Tortoiseshell has moved into her conservatory from elsewhere in the house (Sonning Common).

Meryl Beek – Bumblebees active in Caversham. Michael commented they have been seen since Christmas.

17 Mar

Trish Marcouse – Butterflies in her house – Small Tortoiseshell, Red Admiral, Brimstone (most surprising) and Comma.

Sheelagh Hill – Brimstone and Peacock in garden – Binfield Heath.

Sarah White – first Chiffchaff of the year singing in woodland – not thought to be an overwintered bird.

Jon Cole - had seen 12+ Small Tortoiseshells at Welford on Sat 28th February.

Sally Rankin – 2 Goldfinches feeding on Evening Primrose seeds.

Ken White – Mistletoe on Birch in Windsor – unusual host.

Brian Sargent – 2 Goldcrests on Yew tree in garden (Beenham) and 2 Nuthatches.

Graham Saunders – Woodlark singing in Tadley.

Jan Haseler – more frogspawn in garden pond (Tilehurst) and Blackcap singing – possibly an overwintered bird.

Michael Keith-Lucas – 10 large clumps of frogspawn in garden pond, more than usual.

Ian Esland – moth trap in garden (Whitchurch Hill) - Common Quaker and Oak Beauty.

Renée Grayer – A Redwing still here, Small Tortoiseshell in garden (Earley).

6 Oct

Andrew Bolton – Blue Underwing moth in his moth trap at Axmansford, near Baughurst on Sunday 4th Oct. Jan Haseler confirmed there had been several local reports of this rare moth.

Ailsa Claybourn – Firecrest at Moor Copse last Friday 2nd Oct.

Roger Frankum – Rose-ringed Parakeet at Bucklebury on Saturday 3/10.

Dick Croker - requested help with identification of a tweeting small brown bird in his garden. A chiffchaff was suggested as most likely.

20 Oct

Julia Cox – Ladybirds seen on her window at Aldermaston Wharf today (and swarm of

Ladybirds reported on Isle of Wight in news today).

Grahame Hawker – Grey Squirrel with bone from bin outside his office in Earley yesterday, with 9 Magpies circling round and the one behind it pulling its tail.

Dick Croker – Flock of mixed Blue Tits and Long-tailed Tits in his garden in Tilehurst today – his first sighting of Long-tailed Tits.

Peter Spillett – 2 Goldcrests calling in trees in Emmer Green today at 5pm. Both landed on a water feature in garden and were observed bathing and drinking.

Rob Stallard – Comma at Beenham today – not many seen this year.

Tony Rayner – 1 Red Admiral, 1 Comma and 1 Brimstone at Cholsey today. Also saw his first Fieldfare of the year today, and had heard some a few days ago. Other members agreed Fieldfares had arrived early this year.

3 Nov

Ailsa Claybourn - many Long-tailed and Marsh Tits at Moor Copse over the past 4 weeks. Siskins seen for the last 6 weeks which is earlier than usual.

Jan Haseler – A Dormouse found in one of the boxes at Moor Copse last weekend.

Renée Grayer – 2 Earth Stars in her garden in Earley for first time. Green Parakeets seen and heard there today, also the first time.

17 Nov

Yvonne Robertson - Goldcrest in tree in neighbour's garden in Crowthorne yesterday.

Ailsa Claybourn – Confirmed frequent sightings of Goldcrests this autumn. She saw two yesterday near Kendrick school and two in tree near Royal Berks hospital. Ailsa also reported that 11 Harvest Mouse nests were found during a joint mammal group/BBOWT survey at Moor Copse.

1 Dec

Jan Haseler – a good view of the Starling murmuration (RSPB say up to 75,000 birds) on our field excursion to Otmoor Sunday 29th November, in spite of windy conditions.

Renée Grayer – 4 Daffodils now in flower in her garden in Earley.

Cath Butcher – Primroses now in flower in her garden in Tilehurst. Other members also reported Primroses and Cowslips in flower.

John Lerpiniere – Peacock Butterfly on Armour Hill, Tilehurst this morning.

EXCURSIONS 2015

Jan Haseler, Sheelagh Hill, Ken White, Sean O'Leary

Saturday 10 January

After a stormy, wet and windy Friday night, we set off for Farlington Marshes (High tide 14.10) at first light on the morning of Saturday 10 January. It was a balmy 12°C with constantly driven horizontal rain. But the weather forecast correctly predicted that it would clear up as the morning progressed. After all donning the waterproofs, we assembled at 9.30am in buffeting winds and quite low light levels. Undeterred, our group of 7 set off in high hopes and low expectations. Frustrating glimpses of Linnets in the weedy car park borders and a ghostly adult Mediterranean Gull effortlessly gliding into the strong head wind across the low tide mudflats was an encouraging start. Within minutes we were admiring close and confiding families of Russian Dark-bellied Brent Geese which were grazing the abundant intertidal algae. On the banks of the freshwater outlet on the western edge of the mudflats a tightly knit flock of eighty Avocets were reluctant to settle. We progressed towards the reserve and found a charming male Stonechat flitting down onto the exposed seaweed and back, enticed perhaps by the surprising numbers of Starlings, feeding on invertebrates amongst the Brent Geese and piles of Bladder Wrack seaweed.

No sooner had we passed through the reserve entrance kissing gate than the heavens opened! We picked our way through the hawthorn scrub to the only cover available, a small utility building in the N.E. corner of the reserve. But almost immediately the rain eased off, and this allowed us to view a small group of Black-tailed Godwits and Teal on a nearby pool margin.

As the wind perceptibly eased and the warm glow of winter sunshine made a welcome presence, the song from a couple of Cetti's Warblers burst out from the nearby reed beds. We made our way eastwards past small groups of Brents grazing in the meadows of quite long grass – too long to find any coloured leg rings adorning the bird's ankles. In 2009 I photographed a colour-ringed Brent Goose "LVB=" at Farlington which had been ringed as a gosling on the Taymyr Peninsula at 89 degrees East, 77 degrees North, one quarter of the way around the world.

A Kestrel hovered almost motionless in the distance. As we approached the sea wall, large areas of mud flat and seaweed remained uncovered by the incoming tide; huge numbers of Brent Geese, Wigeon, Shelduck, Pintail, Curlew and Dunlin were scattered all around, but with many well hidden amongst the mud, weed and shadows. The seemingly nervous Curlew left the mud in droves to join the geese in the security of the grazing meadows of the reserve. As a heavy squally shower passed, forcing us to stand with backs to the wind, the dozens of Dunlin became hundreds, feeding feverishly at the advancing water's edge. Amongst them Turnstone turned over the flaccid seaweed, and the odd Redshank and Bar-tailed Godwit strutted around. In the distance increasing numbers of waders were swirling around in massed ranks, shimmering light and dark, pushed up by the incoming tide; different flying styles filtered them into separate groups of all Grey Plover, all Dunlin and all Oystercatcher.

Regular parties of Brent Geese, Pintail, Wigeon and Teal in front of us were lifting off the fast disappearing mud, then flying overhead to join the growing flocks on the grazing meadows. Little brown jobs bounced high in the wind off the marsh to join them, eventually settling to reveal the all-dark plumage of Rock Pipits. We finally reached the southernmost point of the reserve and were comforted to find the small south-facing recess in the concrete seawall unoccupied, allowing all of us to duck down out of the wind to have our well-earned packed lunches. As we savoured our sandwiches and hot drinks, more massed ranks of waders swirled around in front of us, sparkling in the very welcome sunshine; the surging tide brought in Great Crested Grebes in their stark winter dress in contrast to Red-breasted Mergansers with the males in their fine breeding colours, and Goldeneye, a female first, diving so frequently as to make ID challenging, and then the splendid male with his guardsman's bearskin hat and huge white beauty spot came by to complete our lunchtime entertainment.

It was a bit of a shock to stand up into the bracing wind! But the winter light was wonderful and with the sun behind us it was time to scan the grazing meadows. Unusually there was a large flock of roosting Shelduck strung out along the length of one of the many freshwater ponds on the reserve. Any hope of counting them was lost with the excited announcement of one word..... "PEREGRINE"..... followed by "sat on a post in front of the Shelduck" . But better than one, there were two, a larger paler female and a smaller darker, almost blue backed male; sat on the grass and distant, but peregrines indeed.

Now we were well on our way back to the car park, and passed the main pool on the western side of the reserve, which had a constant passage of birds coming in to bathe and desalinate in the freshwater, and then move on. Family groups of Brent Geese took it in turn to fly in and bathe, along with good numbers of Common and Black-headed Gulls. No Bearded Reedlings in the reed beds today as the wind was far too strong for them to show, but relaxed groups of Teal, Pintail, Mallard and Black-tailed Godwits loafed around the edges. As we approached the din of the A27, we had a chance once more to scrutinise the plumages of a couple of Brent Goose families with 2 and 3 young and made the pleasing conclusion that 2014 had been one of their more successful breeding seasons, and that they and the many other birds we found and watched today had given us a most enjoyable and satisfying winter day's birding on the south coast.

Saturday 7 February

This year's geology field trip went further back in time than its predecessors – to the Upper Jurassic of 160 million years ago, when Cothill near Abingdon lay under warm, clear, shallow sub-tropical seas. Lesley Dunlop led the well-attended walk (19) on the chilly morning of Saturday 7th February, starting from the car park of BBOWT's Dry Sandford Pit Nature Reserve. The group set out along the edge of the reserve, where Stinking Hellebore flowers were seen, then continued through Cothill village, before turning onto the muddy track which led towards Cothill National Nature Reserve. Cothill Fen is one of the most species-rich lowland calcareous fen systems in the UK, with a rich assemblage of plants and invertebrates. The track continued into woodland and crossed the first of a number of difficult stiles. There were a series of fishponds beside the path, probably lined with clay in order to retain their water in the sandy soil. Towards the top of the chain of ponds, the botanists interpreted the abundant Great Horsetail on the banks as an indication of a spring line. The walk continued along a footpath across a field of turnips, where Germander Speedwell and Shepherd's-purse were in flower and Marsh Cudweed was also seen. The footpath led through a strip of woodland, crossed the Sandford Brook and emerged onto a lane in Dry Sandford village. The stone in a cottage wall was a mixture of limestone and sandstone, with traces of shells and crystals of calcite on the limestone sections.

The final part of the walk was in Dry Sandford Pit Nature Reserve. Different layers of sand and limestone could be seen on the exposed quarry walls. At the top was the Coral Rag, made up of small patches of fossilised coral reef in oolitic limestone. Below was a thick layer of pale marl, a soft calcareous sand. Next came alternating bands of limestone and sandstone, with the harder limestone layers protruding. The sandy layers had many small holes, made by mining bees and wasps. The limestone layers are called the Trigonina beds, after a fossil mollusc. A broken-off lump of limestone had the clear imprint of a ribbed triangular shell, which Lesley said was a Trigonina fossil. The different layers were evidence of changing sea levels – the sandy layers were laid down close to shore, while the limestone was laid down in deeper water. The limestone was formed from the fossilised remains of creatures such as sea urchins and molluscs. At the base of the cliff and out in the wet area in the centre of the quarry were large slabs of limestone, called doggers. The walk continued along a path round the interior of the quarry. At the far side was a dammed-up section of stream. Interaction between organic material and the iron-rich water gave orange deposits and the surface of the water had an oily sheen. On the walk back to the car park, flowering snowdrops were seen and a woodpecker was heard drumming in the distance.

Saturday 7 March

21 members met at Swyncombe Church in glorious spring weather on Saturday 7 March for an introduction to mosses and liverworts led by Sean O'Leary. The churchyard was carpeted with snowdrops and yellow aconites; bees and a Peacock and a Brimstone butterfly were seen and a calling Tawny Owl was heard. The first destination was the beautiful Ridgeway path through the north-facing wooded slopes of Swyncombe Hill with a rich ground flora characteristic of chalky woodland. Notable species included the liverwort *Nowellia curvifolia* found by Sue White and the moss *Herzogiella seligeri*, both species growing as usual on rotten logs. The uncommon epiphyte *Orthotrichum striatum* was found by David Morris. The aim of the walk was not really to look for rarities, however, and much time was spent looking at the commoner species, noting the differences in structure between the basic classes of moss, the differences between mosses and liverworts and the exquisite beauty of the tiny reproductive structures of these beautiful plants.

While the more intrepid walkers pressed on round the circular walk, the more enthusiastic bryologists returned down the slope to search in Swyncombe Churchyard, another good mossy habitat. Here the uncommon *Leucodon sciuroides* was found on limestone gravestones – a habitat it consistently favours in this area instead of its more natural habitat of old trees. The walkers enjoyed the stunning views from the circular path around the parkland of Swyncombe House. The row of tall lime trees at the top of the park had glossy red buds, Primroses were in flower in the woods and a Kestrel flew down as the group walked back towards the churchyard. Finally, walkers were fortified with a slice of Louise O'Leary's delicious muesli crunch to round off the day.

Saturday 11 April

Renée Grayer led a group of 23 members on a walk round Alder Moors in Woodley during which the striking visual appeal was the abundance of Opposite-leaved Golden-saxifrage *Chrysosplenium opositifolium* and Wood Anemones *Anemone nemorosa*. Only a few Bluebells *Hyacinthoides non-scripta* were open, but the Common Dog-violet *Viola riviniana*, the occasional Sweet Violet *Viola odorata* and Primroses *Primula vulgaris* added colour. Moschatel (Town hall Clock) *Adoxa moschatellina* was seen near the start of the walk together with Shining Crane's-bill *Geranium lucidum*. The locality provided varied conditions: in the woods were found Wood Speedwell *Veronica montana*, Ivy-leaved Speedwell *Veronica hederifolia*, Dog's Mercury *Mercurialis perennis*, Wood-sorrel *Oxalis acetosella*, Wood Avens *Geum urbanum* while the stream fringes harboured Hart's-tongue Fern *Phyllitis (Asplenium) scolopendrium* and Soft Shield-fern *Polystichum setiferum*, Narrow Buckler-fern *Dryopteris carthusiana*, Water Figwort *Scrophularia auriculata*, Wavy Bitter-cress *Cardamine flexuosa* and Wild Angelica *Angelica sylvestris*. The Beggar's Hill area offered more common species such as Bur Chervil *Anthriscus caucalis* and Cow Parsley *Anthriscus sylvestris*, Creeping-Jenny *Lysimachia nummularia*, Garlic Mustard *Alliaria petiolata*, Green Alkanet *Pentaglottis sempervirens* and Spear Thistle *Cirsium vulgare*. A dead Shrew *Sorex araneus* was examined with interest, unlike the dead Fox *Vulpes vulpes* (although a live one was also sighted). An active pair of Treecreepers *Certhia familiaris* enthralled the group and two Coot chicks *Fulica atra* on the lake next to Ashenbury Park offered a reminder of the arrival of spring.

Sunday 26 April

On a cool cloudy Sunday Chris Ash (in lieu of Michael Keith-Lucas) led a walk around part of the Warburg Nature Reserve. The group (of 20) started by walking through the woods and up the hill to see the ancient pollarded Beech Trees. At the top of this path a small triangular meadow amongst the trees was well populated with Adder's-tongue Fern *Ophioglossum vulgatum* showing

their spore stalks and a few scattered Twayblades *Listera ovata*. From the meadow we progressed into the woods to two exclosures where there were three Mezereon *Daphne mezereum* plants with some flowers remaining, but most already turning to seed pods. Back on the path leading down to the car park we found a large area of Herb Paris *Paris quadrifolia* in full flower and then just below it the first showing of five or six Early-purple Orchids *Orchis mascula* (all other Orchids seen, presented only as basal leaves). From there we followed the Nature Walk trail along the grassy ride dotted with Cowslips *Primula veris*. An area of the path which three days previously was humming with solitary bees emerging from their burrows was now apparently unpopulated (probably due to the heavy overnight rain and low morning temperatures). In the next field we again found many Cowslips, Common Dog-violets and Twayblades with Bugle *Ajuga reptans* showing quite strong growth. Returning to the car park via the lower roadway we managed to catch a Green Longhorn Moth *Adela reaumurilla*. Nearer the car park there was a large area of Green Hellebore *Helleborus viridis* and further on, in the hedgerow, a Goldilocks Buttercup *Ranunculus auricomus* apparently growing in the same position as Ken White remembered from 45 years ago!

Sunday 3 May

While the group of 32 walkers (including 10 locals) waited for a storm to pass, Dick Greenaway provided an introduction to the walk, emphasising the importance of the geology and geography of the area on the flora that we would see. The primary issue being that, generally, woodland areas persist in places that were difficult to farm; the woodland understorey is not greatly disturbed so plants with poor seed dispersal can survive in the stable conditions.

Immediately beyond the sports ground, we found Wood Sedge, Bluebells, Lesser Celandine, Meadow Saxifrage, Wood Anemones, Moschatel, Stitchwort, Yellow Archangel, Greater Wood-rush, Wood Speedwell, St John's Wort (not yet flowering) and Dog's Mercury. Dick reminded us that Wood Mellick is the only ancient woodland indicator that covers the whole country and that Bluebells (according to Oliver Rackham) spread 1 metre per century so take a long time to populate woodland.

He was able to confirm that the woodbanks were designed to enclose animals which would have been a source of food. The evidence was apparent by the fact that the ditches were dug on the inside of the boundary banks which would have stopped the deer from getting out as they would be unable to jump the ditch and over the bank in one leap.

Further into the woods we saw Deadly Nightshade, Figwort (he reminded us that 'wort' means 'of medicinal or culinary use'), Herb Robert, Wood Spurge, Common Dog Violet, Bugle, Sweet Woodruff (smelling of newly mown hay), Wood Avens, Bush Vetch, Pignut, Spurge Laurel, White Deadnettle and Ground Ivy.

As we approached the motte, Dick explained that, according to the Domesday Book, Theodoric the Goldsmith owned the motte. The (bronze-age) field bank was still visible with the barrow (2000-2500 BC) located in the corner (to avoid using too much valuable land). Dick suggested that the Yew we were admiring could be similar age to the bank i.e. 2000 years old.

Further on, he drew our attention to Hazel coppice with Sessile Oak standards, the Hazel forcing the oak to grow straight up. Pedunculate Oak was grown in hedges. We found an Ash stool, estimated to be 400 years old, in one of the banks.

Dick showed us a potash pit (see - http://en.wikipedia.org/wiki/Potash_pit for an explanation). The production of potash in the UK was discontinued once Swedish potash became readily available as it was of a much higher quality. A similarly old woodland artefact was the lime kiln used by farmers up to 1800, in areas with readily accessible chalk. This kiln was fired to a very high temperature which resulted in the creation of quick lime around the edge of kiln which was used to make mortar.

The route back to the car park offered up Bush Vetch, Pignut, Spurge Laurel, Three-nerved Sandwort and Ground Ivy.

The group offered their thanks to Dick Greenaway for a fascinating walk and talk.

Saturday 30 May

On a sunny, warm day, Sarah and Ken White led a group of 16 members around the National Nature Reserve at Ashford Hill. Walking from the car park in the village to the reserve we found Green Alkanet, Greater Celandine, Tall Fescue and False Fox-sedge. In the reserve itself, we then explored several of the wildflower meadows before heading into the SSSI woodland (Redlands Copse) to the east of the reserve, where we saw Pale Sedge, Wood Melick and Common Cow-wheat. After a picnic lunch, we re-entered the NNR from the south-eastern end accompanied by Bob Winfield, a volunteer warden with twenty years' experience of the site. Bob described the geology of the area and explained the history and management of the reserve which together have led to the development of the rich and diverse habitats and a wide range of flora and fauna, several of which are locally rare.

The first meadow (Pipers Piece) was a typical unimproved meadow on London Clay and Lower Bagshot Beds. In this area we saw Kites, Buzzards and Treecreepers and heard Goldfinches, Blackbirds and Chiffchaffs. A wet boggy area here contained Greater Tussock-sedge, Great Yellow Cress, Common Valerian, Ragged Robin, Bladder Sedge, Remote Sedge and Water Plantain.

The next meadow was very different: it was drier with a sandy, acidic soil and a large number of anthills made by the Meadow Ant. Here were large areas of Pignut in flower, Oval sedge, Sweet Vernal Grass, Hairy Sedge, Glaucous Sedge, Tormentil, Cat's-ear, Heath Spotted Orchids, Heath and Germander Speedwell, Marsh Thistle and Bitter Vetch. The plant species growing on top of the anthills were noticeably different from those growing in the rest of the sward. For example, Mouse-ear Hawkweed, Spring Sedge, Large Thyme and Dyer's Greenweed grew only on the anthill tops. We saw a Kingfisher and heard a Chiffchaff, Garden Warbler, Green Woodpecker and Blackcap. We saw a Common Blue, an Orange Tip, a Scorpion Fly, a Straw Dot Moth, a Burnet Companion, a Small Yellow Underwing and a Narrow-bordered Bee Hawkmoth. The latter was a particularly good find, being only the third record in Hampshire for the last 3 years and a new 10km square record. The unmistakable sound of noisy young Great Spotted Woodpeckers led us to their nest-hole at the edge of the wood.

In the particularly species-rich, marshy area at the south-eastern end of the reserve we saw Square-stemmed St. John's Wort, Marsh Valerian, Marsh Lousewort, Marsh Pennywort, Star Sedge, Common Cottongrass, Bog Pimpernel, Wood Club-rush, Water Figwort and Gypsywort.

Walking back through the reserve along the boardwalk, we heard Bullfinch, Reed Bunting, Turtle Dove and Water Rail. Lastly, Bob showed us one of the specialities of the reserve: Greater Broomrape, nestled under a flowering Broom.

Saturday 6 June

Alan Parfitt led a walk at the RSPB's Otmoor reserve on the morning of Saturday 6th June. The reserve is designed to provide wet grassland and reedbed mainly for breeding wading birds, such as Lapwing, Snipe and Redshank and reedbed species such as Bearded Tit, Marsh Harrier and Bittern. A variety of orchids and less common wet grassland plants are now present across the site and it is very good for dragonflies. Several Turtle Doves were calling from nearby while the group were assembling in the car park. The walk started in The Closes, a restricted area of meadow which had been restored from arable farm land. Within an area protected by an electric fence were about 6 clumps of Fen Violet, known from only 2 other sites in the UK. The flowers are a very pale

blue, with darker blue veins. The plants had originally been grown from seeds gathered at the adjoining Otmoor SSSI for the Millennium Seed Bank. A certain proportion of the seeds are tested for viability and the RSPB had been given the resulting plants. They were planted out in a strip of varying wetness to try and assess what was the best hydrology for the plants. Only the specimens in a small part of the test area were thriving – they apparently needed suitably wet conditions in winter, with drier conditions in spring and summer. A number of flowers of Grass Vetchling were found nearby. Across the field, Lapwings and a Redshank flew up in alarm, disturbed by a female Marsh Harrier, which was brown with a cream-coloured crown.

The route led back to the field gate, then along the main entrance track. Below a large willow stump in the hedge across the ditch from the path, a Grass Snake which was at least 18 inches long slithered out of the water and up the bank. Then a grey and black stripey band wrapped round part of the stump started to move and proved to be a much larger Grass Snake, at least twice as long as the first specimen. Continuing along the track next to the large Greenaways field, there were excellent views of a Turtle Dove which was calling from a nearby Oak tree. Reed Warblers and Lesser Whitethroats were singing nearby and there were distant views of Hobbies and Marsh Harriers. The pale pink flowers of Water-violet were growing in the ditch next to the track. The route continued to a viewing screen which looked out over a lagoon. A Tufted Duck escorted a family of ducklings and a Common Tern perched on a branch which emerged from the water. Two Hobbies were watched as they flew over the nearby fields. After a brief visit to the Wetlands Watch lookout point, the return route followed a bridleway along the southern boundary of the reserve and back to the car park.

Saturday 27 June

The annual coach trip was to the RSPB reserve at Arne in Dorset. The reserve opened in 1966 and is chiefly lowland heath, noted for the rare heather known as Dorset Heath (*Erica ciliaris*), and for its breeding colony of Dartford Warblers. It also has acid grassland, salt marsh and woodland, with reedbeds adjoining the mudflats of the harbour. Other important species include Nightjar, Woodlark and, on the mudflats, Spoonbill. It extends over 563.4 hectares (1,392 acres) and was notified as an SSSI in 1986. The reserve has a substantial herd of Sika Deer. Originating in East Asia, these animals escaped from deer parks during the 1860s and have now become naturalised, living on the heath and oak woodland of the site.

On arrival (at around midday) we split into two groups, with one group following the Coombe Heath trail to the south and the other group following the Shipstal trails to the north.

The Coombe Heath walk initially took us past a pond and marshy area where we saw Lesser Skullcap, Oblong-leaved Sundew (all three UK species are present), Marsh Pennywort and Tormentil. Proceeding out onto the heath we saw Cross-leaved Heath, Centaury, Vervain, Selfheal, Ragwort, Great Mullein, Dwarf Gorse and Common Dodder: indicating a mixture of soil types. Tree Pipits were collecting caterpillars and feeding their young hidden in the Heather. At the bird hides we could see distant Spoonbills, Shelduck (one pair with 15 chicks), Curlew, Black-headed Gulls, Swifts and a Black-tailed Godwit. We later saw a Hobby and Silver-studded Blue butterflies.

The Shipstal trails led to the beach where there were hundreds of Barrel Jellyfish (30cm diameter and 1.2m long with a mild sting) washed up and dying. After a picnic lunch on the beach, a wander across the salt marsh revealed the small pink flowers of Greater Sea-spurrey, drifts of Common Sea-lavender, fleshy green and red spikes of Glasswort and white-flowered Common Scurvy-grass, Sea Sandwort, Arrow Grass and Sea Couch Grass. On the beach were mats of Sea Campion. There was a small group of Sika Deer grazing in the marsh close to Black-headed Gulls, Oystercatchers and a Little Egret. After a steep climb up to the viewpoint above the beach, the group were rewarded with wide-ranging views over Poole Harbour and across to the Purbeck Hills. The path descended through heathland to a sheltered area of low Bell Heather, where blue male and brown female Silver-studded Blue butterflies were flying. The path continued between heathland pools with patrolling dragonflies, across bracken-covered heathland and on through oak

woodland with cushions of moss. Butterflies added to the tally included Small Heath, Large Skipper, Speckled Wood, Red Admiral and Meadow Brown. Two Treecreepers were watched for some time as they worked their way up a tall Birch tree.

Saturday 18 July

On a clear sunny day Julia Cooper led a group of 26 at Shear Down Farm near Basingstoke. The farm is 3000 acres of which 2000 is mixed arable (Wheat, Barley and Oats) and 500 acres of woodland for firewood. It is unique in the UK in the fact that they grow Mint and Lavender which they process on the site to extract essential oils and then make their own food and cosmetic products. Our main interest was in the areas of set-aside which bordered and intersected the fields and the species rich hedgerows which lined the roads. The farm does not have access to water and is in a rain shadow so this year has been particularly difficult for the Mint.

The first field margin we visited (a Barley field used to supply local brewers) was deliberately seeded with grasses and wild flowers (Clover, Bird's-foot Trefoil, Lucerne, Melilot, pineappleweed) which gave a succession of flowering times to sustain the insect life through the season.

The second field was part Barley and part seeded with wild flowers and grasses and divided by a wide boundary of Chicory, a good bird seed plant. The seeded area contained species such as: Sunflowers, Field Madder, Field Pansy, Buckwheat, Dwarf Toadflax, Rye Brome, Sorghum, Goat's Rue and Phacelia.

The Mint was Black Mitcham Mint which is a very dark leaved and extremely strong smelling variety. Because of the poor rainfall this year the mint was fairly small and this had left plenty of space for wild species such as Small Toadflax, Fat-hen, Creeping Thistle, Spear Thistle, Field Bindweed, Dwarf Spurge, Sun Spurge, Black-bindweed, Nipplewort, Field-forget-me-not, Wild Parsnip, Creeping Buttercup, Common Ragwort, Groundsel, White Champion, Perennial Sow-thistle, Prickly Sow-thistle, Wall Speedwell, Common Field-speedwell and Green Pigweed.

The final margin was rich in arable weeds and was ploughed each year to encourage the growth of Greater Venus's-looking-glass, Fool's Parsley, Scarlet Pimpernel, Shepherd's-purse, Common Fumitory, Cleavers, Cut-leaved Crane's-bill, Dove's-foot Crane's-bill, Sharp-leaved Fluellen, Round-leaved Fluellen, Sainfoin, Prickly Poppy, Common Poppy, Field Madder, Scentless Mayweed, Narrow-fruited Cornsalad, Field Pansy, Restharrow and Common Cudweed

In the hedgerows we found Agrimony, Musk thistle, Common Knapweed, Greater Knapweed, Wild Basil, Hairy St John's Wort, Field Scabious, Common Toadflax, Common Broomrape, Wild Mignonette, Bladder Champion, Black Bryony, Hedge Bedstraw, Goat's-beard, Coltsfoot (leaves only) and Germander Speedwell.

Not many insects and birds were evident; we only recorded the Little Metallic Longhorn moth on Field Scabious and Cinnabar Moth caterpillars on Ragwort.

Sunday 26 July

Following months of drought, the walk led by Ian Esland at the northern section of Aston Rowant National Nature Reserve on Sunday 26th July (attended by 11) took place in continuous rain with a strong wind from the south. It had been advertised as a butterfly walk but had to be reclassified as a botanical field trip. Ian explained that a few days before, in more suitable weather conditions, he had seen 18 species of butterfly, including an early Silver-spotted Skipper. The walk started out along the upper slopes of Beacon Hill, where there was a superb display of chalk grassland flowers, including Small Scabious, Clustered Bellflower, Common Rock-rose, Harebell, Dwarf and Carlina Thistles, Pyramidal Orchid, Marjoram and Yellow-wort. The only butterfly of the afternoon,

a single Meadow Brown, was spotted here. Wild Candytuft and Basil Thyme were found on bare soil patches at the top of the slope. Growing amongst the short turf at the top of the next field were good numbers of Frog Orchids. Initially these were hard to find, but once a few had been spotted, a surprising number of further specimens turned up.

The walk continued into the shelter of Little London Wood. Woodruff, Enchanter's Nightshade and Wood Barley were amongst the sightings here. On bare ground next to the path were about 10 spikes of Violet Helleborine, just about to come into flower. The group then retraced their steps. A Privet Hawkmoth was a surprise find on a fence post just outside the wood. The walk continued back along the lower slopes of Beacon Hill. A female Bullfinch flew across the path and Juniper bushes could be seen higher up the slope. Greater Knapweed and Common Restharrow were added to the species list and there were a number of spikes of Fragrant Orchids, now gone to seed. The route dipped down into one of the sunken trackways which cross the reserve, before climbing back up a steep set of steps. At the side of the path, several Buckthorn bushes had heavy crops of still green berries.

Sunday 9 August

On a hot sunny day Renée Grayer led a group of 22 on a walk to Fobney Island Meadows. We walked from Circuit Lane in Southcote, under the railway and over Holy Brook, where we saw Arrowhead, and then through the water meadows, where on our return we saw Bifid Hemp-nettle, to the River Kennet to access the Fobney Island western meadows from which the public is normally excluded.

"In November 2012, work on the Fobney Island Wetland Nature Reserve Project was completed alongside the River Kennet on the edge of Reading in Berkshire. An area of low value rough grassland is now a new 5 hectare wetland nature reserve with riverine and floodplain habitats, pathways for public access and wildlife viewing hides. The land has been lowered to create wetland ponds and meadows that, at times of high river flow, will be in connection with the River Kennet to the south of the island. This has improved the site for birds, bats, fish, reptiles and amphibians; as well as creating a natural flood storage area. During the spring of 2012, new scrub planting, grass and wildflower seeding was completed."

This year the meadows were much drier than normal so although the flora was rich and lush there did not seem to be much evidence of fauna. We were joined at Fobney Island by Renton Righelato who guided us around the wildlife sensitive areas. Rarer plants seen at Fobney Island were Sneezewort, Nodding Bur-marigold, Trifid Bur-marigold, Flowering-rush, Great Burnet, Pink Water-speedwell and Hybrid Water-speedwell. With a large web, nestling in some grass stems, was a Wasp Spider.

Saturday/ Sunday 15/16 August

Norman Hall organised the annual moth-trapping night at Snelmore Common on Saturday 15th August (attended by 13). It was a joint event with the Berkshire Moth Group. The skies were clear, but despite the rapidly falling temperature, a respectably long list of moths was accumulated. Norman set up his lights in the field next to the car park and the adjacent woodland. Paul Black, Jan and Laurie Haseler and Roy Dobson set up their lights out on the heathland. The dedicated trappers stayed on site over-night, while the Haselers left at 2am and went home to bed. Next morning, 3 members turned up to view the night's catch.

A few of the moths, such as Ling Pug, Narrow-winged Pug, True Lover's Knot and *Pempelia genistella*, were heathland specialists, with larvae which feed on heather or gorse. Others were associated with trees, particularly oak, birch, pine and willow. The commonest moth, with 66

individuals, was the Lesser Broad-bordered Yellow Underwing. The largest moths were 2 Pine Hawkmoths. The Prominents are furry, thick-bodied moths which rest in a characteristic tent-like position and some of them have prominent crests on their backs. Seven different species were taken – Iron, Pebble, Lesser Swallow, Swallow, Coxcomb, Maple and Pale Prominent. The most abundant of these, with 34 individuals, was the Lesser Swallow Prominent, a birch feeder. Some of the moths, such as the Black Arches, the Clouded Border and the Purple Bar, were boldly patterned. Others, such as the Canary-shouldered Thorn, the Chevron and the Rosy Footman, were coloured in tones of yellow or pink. Other species seen included an Oak Bush-cricketer and a number of Hornets, one of which stung Norman when he inadvertently kneeled on it. Fortunately, its sting was unexpectedly mild.

Saturday 5 September

Following on from her fascinating talk to the Society in February, Helen Read led a walk at Burnham Beeches on Saturday 5th September (attended by 18). The reserve contains a large number of ancient pollard trees, mostly Beech but also some oaks. Active pollarding ceased about 200 years ago and Helen and her team have had to teach themselves how to look after the ancient trees in order to extend their lives. The walk started out in an enclosure which is being grazed by cattle and Exmoor ponies. An old hollow Beech pollard with aerial roots was inspected. The branches which had grown above the old pollarding point had sent new roots down into the heartwood of the tree. As this decayed and rotted away, the roots were left exposed inside the tree. Further on, Hornets were flying in and out of a hole in an old oak pollard and Common Cow-wheat was in flower beside the path. Nearby, it was surprising to see an acid-loving Rowan and a lime-loving Whitebeam growing close together. Perhaps dry conditions were more important than the acidity of the soil. Another old Beech pollard had been a victim of the previous bank holiday weekend's wet weather. A big limb had fallen off on one side and then the rest of the tree had split in two and fallen in the opposite direction. Its heartwood was rotten and the sparse foliage on the fallen branches indicated that it had been in poor health. Helen found a big specimen of the Artists's Palette fungus *Ganoderma applanatum* on it. A little further on, the ground sloped steeply away below the path and it was possible to look down on two pollards and see how they are being managed. The main branches had been reduced in height and there was plenty of new growth below. Surrounding trees had been cut back or cut down to let in more light. The bare trunk of a neighbouring tree had been left as standing dead wood. The trees are re-cut after 15 – 25 years. As the height is further reduced, the cleared halo is extended and more neighbouring trees need to be cut back to reduce shading. New pollards are also being created for the future. Helen showed the group a young Beech which had recently had its second cut, taking out a few of the biggest branches but leaving a reasonable proportion of the smaller branches.

The walk continued into an open area of wood pasture which closely resembled the New Forest, with scattered trees and clumps of brambles surrounded by lawn-like turf. The next section of the route was an area of heathland where there were a large number of very healthy Juniper bushes. When the area had first been cleared, new plants had been propagated at the Cambridge Botanical Garden, but now the Juniper is regenerating naturally. The route then led down into a wet area, where Marsh and Trailing St John's-wort and Lesser Skullcap were growing amongst a carpet of Bog Pimpernel and Marsh Pennywort. The final section of the walk was along a boardwalk through a section of mire, where a number of different Sphagnum mosses, rushes and sedges were inspected.

Sunday 27 September

Michael Keith-Lucas led a field trip, attended by 23, at Greenham Common on the sunny afternoon of Sunday 27th September, starting from the Control Centre car park. Flowers seen on the grassy former runway area included both pink and white specimens of Common Centaury, Kidney Vetch,

Fairy Flax, Devil's-bit Scabious and Dwarf Thistle. Out on the heathland, Dwarf Gorse, purple Bell Heather and pink Ling were all in flower. Michael pointed out a lime-loving Buckthorn bush growing up through the Gorse. One of the target species was Autumn Lady's-tresses. Large numbers of the spiral grey-green spikes were found, but only a few still showed white flowers. Gypsywort beside one of the small ponds on the gravel had unusual purple leaves. A big patch of Autumn Gentians was an interesting find. Further sightings included Viper's Bugloss, Musk Mallow and the red fruits of Wild Strawberry. A number of different species of fungi were seen. There were quite a few mushrooms, thought to be Horse Mushrooms, several varieties of wax cap, various puffballs and a number of ink-cap species. A Stonechat perched on a Hawthorn bush and several flocks of Linnets were seen.

The walk continued across the Common and steeply down a path through the woods to a good-sized pond. Around the marshy edges of the pond were Marsh Pennywort, Bog Pimpernel and Brooklime. The surface of the pond was covered in the three-leaved spikes of Bogbean and a single plant, out in deeper water, had pink fringed flowers. Leaves of Marsh Cinquefoil were a surprising and unusual discovery. On the bank of the pond were the purple flowers of a Calamint, thought to be perhaps a garden escape. There were large numbers of pond snails in the water. Jerry Welsh headed off further down the hillside, to find Royal Fern and Wood Horsetail. The return walk to the start went past a herd of cows with a number of young calves and a rather aggressive young male.

Sunday 25 October

On Sunday 25th October, Graham Saunders led a circular walk (for 24 people) which started from Ufton Nervet. The first footpath led westwards across the fields to the site of a medieval moated manor house with several fish ponds. The moat was lined with Bulrushes and there was a large patch of Gypsywort on the northern bank. The footpath continued to Ufton Court. Graham recounted how when he had a bat licence, he recorded Pipistrelle, Serotine and Brown Long-eared Bats in the house, while the ice houses in the grounds were hibernation sites for Brown Long-eared, Natterer's and Daubenton's Bats. Not far from the front of the house is an enormous old oak pollard, which was measured to be 7.82 metres in girth. It appeared to be in good health. The track continued along the northern boundary of the Ufton Court grounds, past a fish pond which was full of the alien Skunk Cabbage. Growing in a gateway was a Fragrant Agrimony plant. It had pointed lemon-scented leaves, the seed cups were smooth and ungrooved and the lowest spines were reflexed. Small yellow apples on the ground came from a nearby Crab Apple tree, the first of several seen on the walk. Black Nightshade, with white flowers and yellow anthers, was growing in another gateway. The track climbed, first up a damp clay band, then up a drier sandy stretch where there were many animal holes in the bank at the side.

The walk continued through the farmyard of Old Farm, across a grassy field and along a track below a row of copses. Blackthorn bushes in the hedge were covered with sloes. A small flock of Redwings flew overhead calling. Most of the trees still had green leaves, but the Field Maples were gloriously golden. Tall seed heads of Small Teasel were showing above a patch of disturbed ground next to the track. A lone Peacock butterfly flew across the path. There were fine views in the late afternoon sunshine across the valley of the Kennet, with distant glimpses of Englefield House and Pangbourne College. The route then turned southwards up a quiet lane. Bush Vetch and the pink hybrid between Red and White Campion were in flower on the bank and big Holly bushes at the side of the lane were covered in red berries. The next footpath led back eastwards towards Ufton Nervet. A distant Roe Deer was spotted, grazing in the bottom of the field. Suckering elms were growing along the edge of the next copse, but just inside the wood, a much larger elm was growing up through an oak tree. Finally, back at the start, 6 more Roe Deer were spotted in the next field.

Sunday 29 November

Alan Parfitt led a late afternoon walk to look at the Starling murmuration at the RSPB's Otmoor reserve on Sunday 29th November. Members were buffeted by a force 6 south-westerly gale as they gathered in the car park, but the temperature was mild and the rain was holding off. The hedges around the reserve were laden with berries – sloes, rosehips and hawthorn berries. They provided a welcome shelter from the wind, and the group had a good view of a Goldfinch that was sheltering in a hedge beside the path. Small groups of Starlings and a single flock of Lapwings were flying over the fields and several distant Marsh Harriers were spotted flying across the marsh. The RSPB had set up a Starling viewing point next to a screen overlooking pools and an expanse of reed-bed. As the light faded, more and more ribbons of Starlings flew in, twisting together before dropping down into the reed bed. An exposed area of reed next to the open water appeared to be particularly favoured and slowly turned black under the weight of Starlings. More and more birds continued to fly in. From time to time, great flocks of birds rose up together from the reeds and flew round, before dropping back down again. Because of the strength of the wind, the birds stayed fairly low, but still managed to put on a splendid aerial display. As the numbers of birds built up, the chattering calls of the birds increased, despite being partly blown away by the wind. An RSPB sign claimed that there were 75,000 Starlings. Alan explained that the Starlings were at their highest count for the year and that numbers would drop off as the winter progressed. The Starling murmuration is a relatively recent phenomenon. The RSPB bought the first block of former arable land at Otmoor in 1997. After massive earth banks had been constructed to retain water, the reed beds were planted from scratch. The gatherings of Starlings began to build up from about 2008. As the light faded, the rain set in and the group headed quickly back to the cars.

Saturday 19 December

Sue White led 14 members on a walk round the Roman walls at Silchester on the morning of Saturday 19 December. Following a mild November and an exceptionally mild December, more than 30 species of plants were seen in flower, many totally out of season. A Mistle Thrush was calling loudly from an oak tree across the road from the church car park, the starting point for the walk. A Western Polypody fern, with bright yellow sporangia on the undersides of the leaves, was growing out of the wall nearby. Sue talked about the Bath stone and the flints in the wall. Apparently freshly-mined flints have a narrow white outer layer which has typically been rubbed off from specimens which have been gathered in the fields. Examples of both types could be seen in the wall. There were also a number of pudding-stones – flat brown slabs of aggregate with embedded pebbles. A wet section of wall had stalactites dripping onto a limestone crust below. Commonest plant on the sunny south-facing section of the wall was Pellitory-of-the-wall. Also found here were Black Spleenwort, Wall-rue, Great Lettuce (a plant which is currently spreading in Hampshire) and the infrequently recorded Narrow-leaved Meadow-grass *Poa angustifolia*. Tiny seedlings of Rue-leaved Saxifrage were found on top of the wall in one of the gateways and Mouse-ear Hawkweed was found in flower.

The west-facing wall is in damp, shady woodland. Small Teasel is one of the local specialities and a number of plants with tall seed-heads were found here. One plant amazingly also had flowers in bud. On the wooded slope below the path were large clumps of Soft Shield-fern and leaves of the uncommon Thin-spiked Wood-sedge *Carex strigosa*. Celandines and Dog's-mercury were in flower here. On a wet shady section of wall were a large number of plants of Navelwort *Umbilicis rupestris*. On the shady north-east facing wall were a number of moss and liverwort species, including bright green clumps of Rambling Tail-moss *Anomodon viticulosus*, the duller green *Neckera complanata*, curly Silky Wall Feather-moss *Homalothecium sericeum*, Tender Feather-moss *Rhynchostegiella tenella* and the liverwort *Lophocolea bidentata*. Leaving the walls behind, Three-cornered Garlic *Allium triquetum* was discovered growing densely on the far bank of the Roman amphitheatre. Finally, Cyperus Sedge was found at the edge of the pond near the church.

MID-WEEK WALKS 2015

Sheelagh Hill, Jan Haseler, Chris Ash

Wednesday 21 January

Sue White led a walk at Silchester Common and Pamber Forest on Wednesday 21st January. It was a cool, damp, grey morning following several days of hard frost. The walk started from the car park of the Calleva Arms. First stop was a garden wall whose top surface was dotted with the neat round cushions of the grey-green moss *Grimmia pulvinata*. Closer inspection revealed a different bright green moss on the mortar plus clumps of another moss, *Tortula muralis*. The route led out onto Silchester Common, where the gorse was in flower. A Jay flew up from beside the path. A fallen gorse branch had golden yellow clusters of the Yellow Brain Fungus *Tremella mesenterica*. The path crossed a number of small streams and mire areas. A large area had recently been cleared at the top of the Common and there were big still-warm bonfires. A Great Spotted Woodpecker called from the top of a tree by the edge of the woods. A fallen twig had a tuft of the foliose lichen *Evernia prunasti* or Oakmoss, which was grey-green above and white below. Sue said that, after drying and pulverising, it had once been used for powdering wigs.

The walk continued into Pamber Forest. Common Tamarisk-moss was growing at the base of trees beside the path. Hard Fern and Common Polypody were identified, the latter on the bank of a stream with a gravelly bed. Bilberry was abundant in places. A small Holly bush was covered in bright red berries. Red-tipped Cladonia lichens were found on a tree stump. The route led on through the Forest and then back out onto the Common. A puddle near the top of the hill had intriguing ice formations, with irregular sections marked out and strap-like lengths of ice curled round the edges. It appeared to have started to freeze when the puddle was full to the brim, then refrozen on subsequent nights when some of the water had drained away. Towards the end of the walk, a Green Woodpecker flew up from the open heathland into the trees at the edge of the Common. Lunch was then enjoyed at the Calleva Arms.

Wednesday 18 February

Jan and Laurie Haseler led a circular walk in pleasant sunshine at Streatley Warren on Wednesday 18th February. The walk started out westwards along the Ridgeway from the end of Rectory Road. A flock of Fieldfares flew up from the trees at the side of the track. A gap in the hedge tempted the group out onto the adjacent sunny field margin. A flock of Lapwings could be seen below in the valley bottom. A pair of Bullfinches slipped along the hedge line and further along, there was a solitary Juniper bush in the hedge. One of the objectives of the walk was to inspect the open access land at Streatley Warren, where access is only permitted between November and February. Dick Greenaway's recent interesting talk to the Society on 'The history of woodlands in Southern England' had included an aerial photograph of Streatley Warren, showing the outlines of an Iron Age field system which also continued north into Unhill Wood. The two modern-day grassy fields had a series of clearly-visible banks and terraces, showing evidence of earlier farming activity. A Hare raced up across the first field, crossed the boundary fence and disappeared from sight.

The walk continued along tracks towards Westridge Green. A White Dead-nettle plant was in flower at the base of a hedge, a Red Kite was watched as it flew low and landed on the ground and the call of a distant Raven was heard. At the big arable field next to Westridge Copse, a second Hare ran up to the middle of the field, then settled down and became very difficult to spot. The north-facing slope of Westridge Copse was still frosty. The footpath led back to Rectory Road, where Snowdrops and a single Stinking Hellebore plant were seen and a Mistle Thrush sang from the trees above the road. Lunch was then enjoyed at the Four Points at Aldworth.

Wednesday 18 March

On a warm sunny day Chris Ash led 15 members on a circular walk starting at the Bird-in-Hand (Sonning Common). From the car park we could hear a Chiffchaff calling and a Great Spotted Woodpecker drumming. As we approached Crowsley village a long hedgerow of Blackthorn was flowering on one side of the fields where the polo ponies were grazing and overwintering. On a roadside verge beyond the village we found a patch of Leopard's-bane just showing leaf growth, alongside Lesser Celandine, Barren Strawberry and close to a Cherry Plum in blossom. After crossing the road and entering Crowsley Park we saw patches of Primroses and numerous veteran Lime trees bedecked in Mistletoe. A Green Woodpecker was seen flying fast and low into the trees. The acres of open fields were full of Polo ponies and the ground was covered in unrotted dung. Red Kites were gliding all around. A large and very old Field Maple, virtually hollow at the base seemed to be thriving in the open. The route circled back round the margins of arable fields and below Crowsley village we saw Field Pansy, Germander Speedwell and Stork's-bill. On the slope up to the car park two (unidentified) butterflies were seen.

Wednesday 15 April

On the first hot (over 20 degrees) day of 2015, Rob Stallard led 15 members on a 4 mile walk around Ashampstead, through undulating countryside which included a few acres of ancient farmland between wooded areas which contrasted strongly with vast modern agricultural fields; through well established, multi-species woodland within the Yattendon Estate then on into vintage woodland. Although it had been a late spring, the Bluebells were just beginning to show but the visual charm of the walk was the banks of shiny yellow Lesser Celandine and the gently nodding spreads of Wood Anemones. Cowslips, Hemlock, Pignut, Wood-sorrel, Three-nerved Sandwort, Brooklime, and Yellow Archangel were seen. The Woodruff was just emerging. Sadly, a perfectly formed Thrush nest with an accompanying blue egg was found, presumably a casualty of recent high winds or a Corvid attack. Butterflies species seen included Brimstones (male and female), Small Tortoiseshell, Peacock and Speckled Wood. A pair of Ravens was seen on the wing, possibly nesting nearby.

Wednesday 20 May

On a windy but warm and dry day a group of 11 explored Hartslock Reserve to see the orchids and chalk grassland flowers. With a late spring and recent cold wet weather most of the plants have been late to flower. We were treated to a large display of Monkey Orchids and hybrid Lady-Monkey Orchids scattered on various slopes both in and outside the fenced reserve. In addition there were two Lady Orchids. The Twayblades were showing large closed flower spikes with one on the north-west facing slope outside the reserve actually starting to open its flowers.

Common wild flowers on and around the reserve were: Cowslips, Buttercups, Black Bryony, White Bryony (in flower), Chalk Milkwort (both blue and pink flowered variants), Salad Burnet, Bird's-foot Trefoil, Meadowsweet, Yellow Rattle, Herb Robert and Common Rock-rose. A single plant of Common Gromwell was found adjacent to the steps up to the orchids.

In the woods at the top of the reserve there were numerous White Helleborines just coming into bloom and near the top there was a single Clustered Bellflower in bloom. A rat was seen running across the path and into the woods. On the south facing slope there was Horseshoe Vetch, Common Rock-rose, Fairy Flax and a few small Monkey Orchids.

There were very few birds evident (apart from Corvids), but we did see a Mint Moth, Dingy Skipper, Small Heath, a Burnet Companion and a Swollen-thighed Beetle.

On the walk back to Goring via the Thames Path we found Ragged-Robin in Little Meadow Nature Reserve (managed by Withymead Nature Reserve) and small areas of Cuckooflower adjacent to the path. The walk was followed by lunch at the Catherine Wheel.

Wednesday 17 June

On Wednesday 17th June, Rob Stallard led 14 members on a circular walk which began at the car park of The Fox at Peasemore. The route started out along the track towards the centre of the village. Several tall flower heads of Goat's-beard were growing at the side of the path, most characteristically closed, but one had an open yellow flower. House Martins were flying in and out of nests under the eaves of a house opposite the church. The route continued through an attractive garden and out into a field of Broad Beans. Flowers growing beneath the crop included Scarlet Pimpernel in profusion, Common Poppy, Field Pansy, Cut-leaved Crane's-bill, Sun-spurge and Field Bindweed. Yellowhammers and a Whitethroat were calling from the hedge at the far end of the second bean field. The next lane led to an open area of flowery grassland. Despite the cloudy conditions, freshly emerged Marbled White and Large Skipper butterflies were spotted, together with *Anania fuscalis*, a small brown moth which feeds on Yellow-rattle. Flowers here included Hairy Tare, Lady's Bedstraw, Common Bird's-foot-trefoil and Common Spotted-orchid. The walk continued along a shady former drove road. Big old multi-stemmed Field Maples and Hazels were growing on the bank beside the track. Little long-horn moths, *Nemophora degeerella*, with ridiculously long antennae, were bouncing up and down beneath the trees. The leaves of a number of ancient woodland indicator species, including Moschatel and Three-nerved Sandwort, were found here. The track then continued between open fields. One of these had a wide margin which had been sown with a wild-flower mix. A number of plants of the parasitic Common Broomrape were found and Pyramidal Orchids were just coming into flower. Butterflies found here included Common Blue, Small Heath and Meadow Brown, while further on down the track an Orange-tip was seen.

The walk continued into Leckhampstead. Narrow-leaved Ash *Fraxinus angustifolia*, planted in the playing field, was thought to be a first record for West Berkshire. The group then followed the track through Grove Pit, a nature reserve where local volunteers and the West Berkshire Countryside Society have been clearing scrub, coppicing and planting native trees. One of the tree specimens which have been planted is an English Elm of a variety which is being tested for resistance to Dutch Elm disease. Butterflies seen here included Green-veined White, Large Skipper and Speckled Wood and there was a Brown Silver-line moth. After crossing a road, another footpath led up the hillside back towards Peasemore. At a sheltered bend there were about 8 Small Blue butterflies, together with a Large White and a Small White. The next big field had been planted with a wildflower mix, including plentiful Kidney Vetch, the caterpillar food-plant of the Small Blue. More Pyramidal Orchids and a Small Tortoiseshell butterfly were seen here. Garden Warblers and Yellowhammers were heard on the walk back to Peasemore. The walk was followed by an enjoyable lunch at The Fox.

Wednesday 15 July

On a warm cloudy day Julia Cooper led a group of 12 on a walk around Hazeley Heath. The Heath is one of the largest surviving remnants of endangered lowland heathland in the north of Hampshire. The site is designated by Natural England as a Site of Special Scientific Interest (SSSI) and is part of the Thames Basin Heaths Special Protection Area (SPA) because of its breeding population of the internationally protected Dartford Warbler, Woodlark and Nightjar.

We entered the Heath from Springfield Avenue and headed north east to follow a small stream. Here we found Valerian, Common Cow-wheat, Alder Buckthorn, Apple, Yellow Loosestrife, Himalayan Balsam, Hemlock Water-dropwort and Water Figwort. On an Alder by the stream there were numerous caterpillars eating the leaves. We crossed the stream into an open field where the butterflies were just starting to fly. Here we saw Musk Mallow, Lesser Stitchwort, Greater Bird's-foot-trefoil, Marbled White butterflies, Small Skippers and Gatekeepers. Walking back into the drier heathland we saw Dwarf Gorse, Cross-leaved Heath, Bell Heather and Ling, both Downy and Silver Birch trees. Although most areas were very dry due to the lack of rain this year there were some small marshy areas where we saw Bog Pimpernel, Lousewort, Heath Milkwort, Dwarf Willow, Bog Asphodel, Meadow Thistle and Heath Spotted Orchids. We saw a Stonechat and Tree Pipits, Silver-studded Blues, a female Adder and a Four-dotted Footman Moth. Under a corrugated iron sheet was the skin of a dead Adder being dragged down a hole by Sexton Beetles. We walked

through the woodland, then back out through the old landfill area onto heath again where we saw Green Woodpeckers feeding on dead wood, Heath Groundsel, Cudweed, Essex and Large Skippers, several Graylings, a Silver-washed Fritillary, Goat's-rue and by a woodland path a Broad-leaved Helleborine. The walk was followed by lunch at the Shoulder of Mutton, Hazeley.

Wednesday 19 August

On a grey morning, Sheelagh Hill led a group of 21 walkers around the fields surrounding the ancient village of Ewelme in Oxfordshire. They started from the Recreation Ground car park and headed into the village to admire the school, alms-houses (Brown Argus on the lavender) and the church before taking the Chiltern Way eastwards into the countryside. The footpath followed a field edge, the fringe of which offered a number of arable weeds including Fumitory, Wall Lettuce, Alsike Clover, Red Bartsia and Bristly Oxtongue.

The route descended to a country lane (leading to Cookley Green), off which a small group headed along Swan's Way and Potters Lane back to Ewelme.

The rest of the group set off up the path which climbed very steeply through the woods to the top of Sliding Hill. Dewberries, with a dull blue sheen, were seen beside the path. Plants growing on the short turf on the open chalk hillside included Squinancywort, Common Rock-rose, Dwarf Thistle, Viper's-bugloss and abundant Wild Candytuft. Butterflies included about 6 Silver-spotted Skippers, a Brown Argus and a few Common Blues. While walking back towards Ewelme along a footpath through cornfields, a Magpie moth was a good sighting.

After a pub lunch, the group reconvened at the Watercress Beds for a film of the history of the beds (started in 1890) followed by a guided tour, in the rain, by two conservation volunteers. Although already gone over, this year there were Bee, Common Spotted, Southern Marsh and Pyramidal Orchids. Ox-eye Daisies and knapweed have been attracting Small Tortoiseshell Butterflies, but because of the weather we did not see these although earlier in the walk we had seen Small Tortoiseshell, Painted Lady and Common Blue.

Wednesday 16 September

The forecast heavy rain held off until almost the end of the walk which Jan and Laurie Haseler led at Finchampstead and the Blackwater Valley on Wednesday 16th September. The walk started from the National Trust car park at Simon's Wood, off Wellingtonia Avenue. A rotten pine stump nearby was partly covered by cushions of the bright green moss *Leucobryum glaucum*. Down on the path, there were 3 spherical pale yellow galls on a fallen oak leaf. Crossing over to the open heathland at the top of Finchampstead Ridges, a green Bog Bush-cricket was spotted, perched on a clump of flowering heather. Fungi seen here included the turquoise Aniseed Funnel, yellow and red Russulas and a Tawny Grisette. A large Blusher fungus had been marked by the droppings of what was thought to be a Badger. The group paused at the view point to look across the Blackwater Valley to the distant hills of Hampshire and Surrey. The path then dropped steeply down through the woods, where golden yellow Chanterelles were an interesting find. At the bottom of the hill was a pond, with sphagnum moss growing around it. Continuing along a track through the woods, a brown *Amanita* with white speckles on its top was thought to be the poisonous Panther Cap.

The next section of the walk led through the Moor Green Lakes reserve. Swallows, House Martins and Sand Martins were flying over the water. A herd of Belted Galloway cattle was grazing round the edge of the lakes. Meadow Cranesbill and Agrimony were in flower on the bank. There were close views from the first hide of a young Great Crested Grebe with a stripey black and white head. Continuing along the track which runs beside the River Blackwater, it was noted that there was an abundance of Himalayan Balsam in flower. A Grey Heron and a mixed flock of tits were amongst the sightings along this section. Flowering Sneezewort was found beside the path which runs round Horseshoe Lake. The walk continued across several fields, along a lane and then along a

footpath which went through a wood and then climbed steadily back up to the woods of Finchampstead Ridges. The rain set in in earnest as the group returned to the car park. Lunch was enjoyed at the Queen's Oak next to Finchampstead Church.

Wednesday 21 October

On Wednesday 21 October, Sally Rankin led 8 members on a walk round the western side of Henley, visiting some of the sites which are managed by the Henley Wildlife Group. Heavy overnight rain had been followed by light drizzle, which gradually petered out as the morning progressed. The walk started from the junction of Greys Road and King James Way, with the first destination being the very steep Valley Road Chalk Bank. This was cleared in the 1960s and is slowly developing an interesting chalk flora, with species such as Quaking-grass, Dwarf Thistle, Wild Mignonette and Fairy Flax. Yellow Rough Hawkbit was in flower here. The walk continued along a footpath towards the Sue Ryder woodland, with the sports fields of Henley College on the right. Pink Spindle fruits and flowering Field Scabious were seen here. The footpath joined the old Pack and Prime trackway, then a little further up the hill, there was a low marker metal post with the inscription 'Henley Borough Boundary 1908'.

The route then followed a permissive path through a strip of woodland which stretched along the parish boundary. There were rings of fungi below the trees and a number of Clouded Agaric fungi were identified. A Red Kite perched on a dead tree and a Hornet flew along the hedge. The route continued through residential streets. Lady's Bedstraw and Fool's Parsley were growing against a fence and a stump on a front lawn had impressive layers of fungi. Another mossy lawn had an interesting collection of plants, including Hoary Plantain, Common Bird's-foot-trefoil and Ox-eye Daisy. Next stop was Gillott's Field. Native trees had been planted along the western boundary and the Wild Service-tree had particularly attractive autumn colours. Wild Pear was a rare specimen. Sally was able to identify the green leaves of a number of Hound's-tongue plants. Common Toadflax and Musk Mallow were in flower here and in a corner, there were the dried seed heads of 2 Pyramidal Orchids. The walk was followed by lunch at the excellent Maltsters Arms at Rotherfield Greys.

Wednesday 18 November

On Wednesday 18 November, Ken and Sarah White led a walk round the lake at Hosehill Local Nature Reserve, Theale. It was a mild and sunny but very windy morning, following gales the previous evening. With telescopes set up, it was possible to see from their grey crowns that the Grey Herons on the opposite bank were juveniles. Many Wigeon were feeding on floating vegetation and one of the males still had some of the rusty red eclipse plumage. Gadwalls were quite numerous and Ken pointed out the yellow stripe on the side of a relatively small bill which helped in the identification of the females. A number of Teal were roosting on the opposite bank. The wind had piled some of the water weed into dense floating mats and a few Shovelers were swimming to and fro with heads down, feeding in the weed. Sarah pulled several different kinds of weed from the water's edge, which she identified as *Elodea canadensis* and *E. nuttallii*. A tall and slender umbellifer at the edge of the path was identified as Stone Parsley. A party of 13 Long-tailed Tits flew through the bankside Willows.

Continuing through the woods, a wasps' nest was spotted in a bird box. Further round the lake, there was a good viewing point for closer inspection of the Cormorants. The adults had black bellies, while the younger birds had paler bellies. Through the telescope, it was possible to pick out their green eyes. Two male Pochards were spotted towards the western end of the lake. Ken told the group about an ongoing ringing study of Black-headed Gulls. The birds present were inspected carefully, but none with colour rings were seen. He reported that the CR-birding website <http://www.cr-birding.org/> is a good place to report colour-ringed birds and find their life history. Other birds seen or heard during the walk included Buzzard, Red Kite, Mute Swan, Canada Goose, Greylag Goose, Coot, Moorhen, Great Crested Grebe, Mallard, Bullfinch, Kingfisher and Grey Wagtail. The dry seed heads of Water-plantain were growing out of the water in a pond which

had been cleared at the western end of the reserve. The walk was followed by lunch at the Fox and Hounds, where the party were pleased to be offered a 15% reduction on the price of the food on presentation of a membership card from the RSPB or the local Wildlife Trust.

Wednesday 16 December

On a warm dry day with sunny intervals, Sheelagh Hill lead a group of 10 people for a walk around Kingwood Common. The walk started at The Red Lion on Peppard Common and headed across the common, down into Littlebottom Wood, through to Greatbottom Wood, Overs Wood and up past Greyhorne Wood to Kingwood Common. From there we worked our way across Kingwood Common eventually emerging by The Unicorn pub and back up to Peppard Common and the Red Lion for a delicious lunch. The previous weeks of rain had made the going muddy and slippery, compounded by the weekend cross country run of about 30 people along the Kingwood footpaths! Although it was December we found many flowering plants along the way including: Yarrow, Daisy, Sedge, Spurge Laurel, Teasel, Petty Spurge, Hawkweed, Holly, Prickly Lettuce, White Dead-nettle, Red Dead-nettle, Honeysuckle, Mouse-ear Hawkweed, Annual Meadow-grass, Bramble, Groundsel, Dandelion and Gorse; Ferns seen were: Broad Buckler-fern, Male Fern, Hart's-tongue and Polypody.

INDOOR MEETINGS 2015

Renée Grayer, Rob Stallard

6 January 2015

Where did our woods come from?

A short history of woodland in southern England

Dick Greenaway (Chairman West Berkshire Countryside Society)

Dick Greenaway is well known to members through his conservation and educational work in the area, in particular the West Berkshire Countryside Society.

Dick started by making us question how long our woodlands have been around as most people seem to think they have been there forever. In actual fact in the last Ice Age 14,000BP the area was covered with tundra with not a tree to be seen and it looked rather like areas of Norway with reindeer. However, the ice sheet did not reach here, it covered Wales and England as far south as Shropshire. The Ice Age resulted in a retreat of the sea to the edge of the continental shelf so there was dry land connecting to France and Spain with a channel between Ireland and Britain. In the intervening time at about 10,000BP the English Channel was created cutting off land access. Our current wildlife clung on by living in 'refuges' in Spain, SW France and the northern Mediterranean area. In these refuges were people, aurochs, wild boar and deer. The trees included birch, oak, hazel and elm. Irrefutable evidence for this comes from ancient cave paintings made there. As the ice retreated, trees moved north and further up the mountains, they are able to regenerate remarkably quickly. Mammoths have been found that date from 31,000BP, bison 13,000BP and deer 11,000BP. Whole ecosystems, including plants trees and animals, moved north, not just the mammals and trees and the whole eco-system needs to migrate for them to survive. The trees seem to have travelled north along the then dry continental shelf from SW France to Britain and from Spain to Ireland rather than the direct route through France. Evidence comes from pollen in cores and, more recently, DNA analysis that traces the lineage of trees. This shows ash trees came from the West, originally from Spain while Holland's ash trees come from the Adriatic area. The Irish Kerry slug can be traced back to its cousins in northern Spain.

The mechanism of spread requires colonizers, juniper is one of the first; its berries are carried long distances by migrating buntings. Over centuries the soil is built-up by Scots Pine, birch and willow trees that manage to trap the silt. Once soil has built up, nuthatches carry in hazel and jays bring in acorns. Evidence of the native flora comes from water logged soils in this area. At Woolhampton the sequence from 20,000 to 10,000BP can be traced while Sidlings Copse near Oxford gives the sequence for 11,000BP to the present day. These show that by 11,000BP the Kennet area had hazel with some oak and elm with beavers and herbivores, flint flakes show that early man was here too. By 6,000BP small leaved lime and alder had moved in. By the Bronze Age 4,000BP clearance of woodland by man had begun and by the time of the Romans very little was left.

Dick dismissed the myth that British woods were originally continuous with a squirrel able to hop from Lands End to John O'Groats without touching the ground, woods were always fairly sparse because of the activities of herbivores (aurochs, deer, wild boar, horses) so only very few seedlings survive to become trees. When about 6,000BP farming began, the chalk downs was one of the few good areas for agriculture because the ancient cereals require a neutral or alkaline pH soil. The Neolithic stone and later bronze axes were quite capable of clearing the woodland, steel tools are only something like 150% faster. The field boundaries from these times can still be traced at nearby Streatley Warren. Many of our woods were cleared at this time as evidenced by the field boundaries that go, without a break, into the woods and the Bronze and Iron Age burial mounds that are found in the middle of woods. The evidence for less woodland in Roman times is confirmed from pollen cores. In the Domesday Book no woodland is recorded for the manors of Purley, Sulham or Pangbourne, only Bradfield is recorded to have a woodland area for 100 pigs which is not very large. This is a bit of a puzzle as wood is needed for building, tools, furniture and fuel (as wood and charcoal). Wood ash is needed to make soap, tan hides and make glass. The shallow dips used for burning woods and making potash can still be discovered in the woods.

Dick emphasised the relevance of Woodland Archaeology because open areas as at Stonehenge and Avebury are easy to study, features buried in, often private, woodland are much more difficult to survey. An example is near Bucklebury where a circular pond which must have been used for stock is now deep in the woods, indicating that the land was clear for some time. Estates have kept poachers out of woods for hundreds of years often with vicious traps. At Ashampstead, when the Beche Deer Park was made, the old road was redirected and the diversion can be clearly seen within the wood. Other archaeological features can be discovered in the woods: saw pits, chalk pits, plough headlands, kilns and buildings associated with the extensive world war activities.

Dick showed an exciting new Lidar image (Light Detection And Ranging) of the woods near Ashampstead that can see the ground surface without the trees and so reveal a great many features of historical interest.

20 January 2015

Microscopes and Natural History

Alan Potter (Brunel microscopes)

Alan Potter works for Brunel microscopes and they have been his passion for many years.

Alan explained that it was only as late as 1881 that microscopes entered their Golden Age and from then until the modern Internet era exploring the microscopic world was only possible with your own instrument.

As long ago as the Roman Era (1st century CE) glass lenses had been used. The word 'lens' comes from 'lentil' because a lens has the shape of a lentil (Latin name *Lens culinaris*). In this early period roughly made lenses were only used for such things as lighting fires rather than for magnifying images.

It was not until about 1590 that Zacharias Janssen worked with improved, clear lenses to create the first telescopes and microscopes. At this time there was limited demand for lenses for eye

correction as few people lived beyond 40. Anton van Leeuwenhoek (1632 - 1723) is considered the father of microscopic study using a single lens microscope. His spherical lenses could achieve a 200x magnification which was better than the 20x magnification of other systems. The Englishman Robert Hooke (1635-1703) used a two lens microscope mounted either end of a solid tube, this basic design with an objective lens and moveable eye piece has remained unchanged to the present day.

The Gould designed microscopes started to become more widely available in the 1760s. At this stage it was clergymen who were the main customers. The church disapproved of the use of microscope as it offered views of the unseen microscopic world. With only candlelight available study was mostly done outdoors in sunlight and so the instruments were made to be collapsible and easily carried in a pouch when on horseback.

By the early 1800s Gould microscopes were produced in a sturdy box where the box itself served as the stand for the microscope. The object was usually mounted on bone or ivory with quartz as a cover slip – glass technology was not sufficiently advanced at this time. The poor quality of materials and lack of knowledge led to many misidentifications. Common objects to view at this time were plant stems, fleas, bed bugs and other small insects.

Charles Darwin took a microscope on his voyage on the Beagle in 1831; by the 1840s microscope technology had improved and study was more widespread.

Standardisation by the Royal Microscopical Society (RMS) devised long-lived standards such as thread diameters and the size of wooden slides (3" x 1") - at this time the slides were still wooden. Only the surface of specimens was viewed but stains began to be used to highlight structures of the specimens (such as skin). Most amateur observers were happy to marvel at the intricate patterns revealed rather than understanding what they saw.

Rapidly developing interest in the 1870s led to the manufacture of larger sets of kit for the budding amateur microscopist. These included alcohol and stains for preparing specimens and boxes with sliding drawers made to store the slides. Companies started to mass produce slides for viewing. John Thomas Norman was a pioneer with thousands of slides in his catalogue including pieces of toe, ladybird larvae, fleas and lice. The range of specimens soon grew more artistic. The intricate shapes of tiny diatoms were arranged in a sort of mosaic to create intricate designs at a miniature level. French artists arranged the iridescent scales from butterfly wings to create the illusion of microscopic floral arrangements. Such tiny masterpieces can fetch £5,000 at auction today. Another dimension came with John Dancer who developed a technique of photo-reducing images onto a microscope slide. The subjects included scenery, pets, people as well as pornography to entertain the Edwardian gentleman. Dust from Krakatoa and Australian gold were among the astounding slides that could be purchased to impress visiting guests.

The use of cross polarising filters added extra interest to such things as fragments of opal. Exotic material was brought back by the voyages of HMS Challenger (1872-76). It took samples from the seabed at a depth of 3.3 miles and collected the intricate, delicate structures of foraminifera which are divided into over 10,000 species. At extreme depths the calcium carbonate casing (test) cannot be produced by the micro-organisms and an organic test is produced instead.

A major breakthrough came with the viewing of cross sections of specimens rather than the surface. This was made possible by the microtome that produces 10micrometre slices through the specimen. Horace Darwin and Michael Keith-Lucas's grandfather at Cambridge Scientific Instruments were the pioneers of this work. The specimen is soaked in alcohol to replace the water, the alcohol replaced with toluene and then the toluene is replaced with wax. It is a delicate and lengthy process. This makes the specimen firm enough to be sliced. The use of haematoxylin as a stain in histology is crucial to making cell structures visible. The valuable dye comes from the Logwood tree of Central America.

In modern times a digital camera is often added to a microscope by splitting the image. More detailed pictures can be taken directly using a built-in CCD sensor.

One of the main limitations of viewing with a microscope is the continual adjustment of focus so

that features at different levels are brought into sharp definition. Modern software makes it possible to stitch together images at different levels enabling a composite '3-D' image of the object to be built-up. This creates very impressive images for such things as small insects.

Alan brought with him a wide range of antique and modern microscopes that members were able to inspect after the talk.

3 February 2015

Pollards and pollarding, with particular emphasis on Burnham Beeches

Helen Read (Conservation Officer, Burnham Beeches NNR)

Helen Read started by defining what is a pollard. It is a tree cut above head height with the purpose of generating leaves for fodder or timber. It has to be cut regularly and trees are chosen selectively from suitable trees in a wood.

Coppicing is easier to do but unlike pollarding does not allow for grazing beneath the trees as the new shoots would be eaten. Pollards can be very long lived with ages 300-500 years and active pollard management gradually creates all sorts of niches for insects, fungi, epiphytes and birds.

The pollards grown to produce fodder for livestock are managed in a distinct way. Fodder pollards can still be found in Sweden, Spain, Romania and Norway where high altitude or latitude makes the hay crop unpredictable and so leaf fodder is a valuable fallback. To achieve a high proportion of leaves compared to woody material these pollards need to be cut regularly and often all branches are removed with a bladed tool. Sometimes the side branches are removed as well, a process termed 'shredding'. Elm and ash are the most valued pollards for winter fodder production. The hard worked pollards are not long lived and are replaced when they lose vigour. The regime in Scandinavia is to spread manure in winter, and in mid-summer cut the hay as well as the pollards above them. The foliage is taken away and dried and then livestock are brought into the meadows. A study has shown that higher land productivity is obtained compared to bare pasture, although the pollards create shade, the grass grows well on the drip line around the trees. Hay may be more nutritious in carbohydrate value but leaf fodder has been shown to yield healthier sheep.

Pollards grown to produce wood follow a different scheme. Wood pollards are still actively managed in a few places in Spain, France, Hungary, Romania and Norway, but with a smaller total area than fodder pollards. Some countries use different techniques, in France, for example, a single sap riser is often left towering above a mass of pollards. They are traditionally managed by cutting by axe in winter on an 8-15 year rotation. Oak trees are preferred to beech and in this case the woodland is dense with little grass underneath. The Basque region of Spain uses two types of pollard, one to produce charcoal and one for wood. For timber production the tree is shaped with many bent branches (candelabra-like) to produce curved timbers for shipbuilding; in this case the whole tree is felled. The declining economics of the process has led to a need to conserve the existing pollarded trees.

In Southern England oak, beech and hornbeam were used for wood pollarding, often on Commons. There is a high concentration around London, where it was mainly used for firewood and timber. The City of London Authority bought up old Common land including Epping Forest, Burnham Beeches and Ashstead Common. The 220 hectare Burnham Beeches was bought in 1880 after a public campaign to save it from building development. It is sited on acidic well drained soil and has open areas of heath and acid grasses. It soon became a popular area for recreation with many artists making sketches of old pollards in the 1860s. Nowadays the woods receive 500,000 visitors a year putting pressure on busy areas. The majority of trees over a hundred years old have all been pollarded. The wood was used by local for fuel and domestic use; it was not used by the furniture making industry. The tree rings can be used to measure how often they were cut and this was typically every 15-20 years. It is estimated that pollarding extends the life of a tree from 250-300 to 400-500 years. The increase in longevity is due to the more squat and stable form of pollarded trees; trees are naturally limited in height by the hydraulic pressure of water exerted

by the roots, so outwards is the only long-term direction for them to continue to grow.

Burnham Beeches is a SAC (Special Area for Conservation); NNR (National Nature Reserve) as well as a SSSI. There are a number of rare red book species in the forms of mosses, flies and beetles that require old and decaying wood. Open areas produce wild flowers with nectar for adult insects. Regularly kept records of the number of pollards show a steady decline from 3,000 in the 17th century to 421 in 2007. This is because many have not been pollarded for 200 years and also the woods have not been grazed allowing for scrub and small trees to grow up competing for light and moisture. In 1990 an action plan was drawn up to prevent the decline because if nothing was done they would all have died out before 2030. There was no clear guide on how to pollard such old trees so the group experimented with young beech trees. It was discovered light was a key requirement and also they can not recover if all top foliage is cut back. The approach taken is in the first phase to clear a halo around the tree removing competition but not drastically, as too sudden an exposure to bright sun can lead to death by desiccation. Some years later a wider area is cleared around the tree. As the pollards are so old the branches are assessed individually to see which ones would encourage new growth lower down. Each tree has its own long term care plan. Many trees have been neglected for too long to ever get back to the original pollard shape – multiple branches from a common pollard point or ‘bolling’. In areas of high footfall deep mulching has been spread out a wide distance from the trunk to encourage root re-growth in compacted soil. There is now a rolling annual programme in place: in June-July a bat survey establishes if the tree has roosts, Nov-Dec is when halo clearance is conducted, Jan-Feb is when old trees are crown reduced and July-Aug is when young pollard is cut. As well as conserving the old trees new pollards are being created, a thousand so far. To ensure habitat improvement, livestock have been re-introduced. These measures taken together have helped reduce the annual number of ancient pollard deaths to 6.4 per year.

Helen and her team have visited the Basque country to see traditional pollarding in operation. Here some people can still remember pollard management for charcoal. They used axes and a study has shown that axe cut trees give better results than chain saws. It was also found to be better to leave a reasonable length of stub (0.5 meter) rather than attempting to cut the limb off completely.

Helen ended by pointing to source of further information: the Ancient Tree Forum (<http://www.ancient-tree-forum.org.uk>); the European VETree project (<http://www.vetree.eu>) and Natural England (<https://www.gov.uk/government/organisations/natural-england>).

17 February 2015

Flowers of Greece in Spring and Autumn

David Cliffe

In the autumn of 2007 and spring of 2008, David went to two different parts of Greece on botanical trips organised by Greentours and led by Ian Green. In November 2007 they visited the Peloponnese, the southern tip of Greece, based on Gythio, a fishing village and tourist resort between the second and third of the three peninsulas. The summer of 2007 in Greece had been hot and dry; it was thought that farmers had set fire to their own farms to get compensation from the government. The fires were beneficial for the botanists, as the scrub had been burnt and the wild flowers were more visible. Greentours had sent a leaflet warning that the bulbs would only flower if it rained, but fortunately the rains had come and the group saw many flowers, especially those of bulbs. The group flew to Athens and stayed by the Corinth Canal overnight, then made their way south, via Mycenae. In Mantheria, they saw *Crocus hadriaticus*, *Sterbergia sicula* (the closely related *S. lutea* has narrower leaves and smaller flowers than *S. sicula*, but in some floras *S. sicula* is treated as a subspecies of *S. lutea*) and a Swallowtail butterfly caterpillar. In the Black Pine forests of the Taygetos Mountains (near Sparta), they saw *Colchicum boissieri* and the rarer *Colchicum bivonae* with chequered flowers but past its best.

The next part of the tour was around the Mani Peninsula (the eastern most of the three peninsulas at the south of Greece). At the village of Areopoli, they saw *Colchicum psaridis*, *Crocus boryi* and

C. laevigatus, *Arisarum vulgare* (Friar's Cowl) and the larva of a Spurge Hawk Moth. *Crocus boryi* differs from *C. laevigatus* by many-branched styles. The anthers are white in both species, but the filaments are yellow in *C. laevigatus* and the flower opens more to a star shape than that of *C. boryi*. In the rough grazing land near Haruda, they saw lots of grasshoppers, mantises, and Painted Lady butterflies, plus *Crocus niveus*, *Sternbergia sicula* (in an olive grove) and *Scilla autumnalis*. Along the coastal road, *Campanula versicolor* and *Erica manipuliflora* were growing among rocks. Near Sikea, they saw *Biarum tenuifolium*. They found *Cyclamen graecum* in the hills above the village of Foutia, but the scent of the flowers was rather overpowered by someone doing some vehicle spraying at a garage below. The ruins of the old city of Monemvasia, in the past Byzantine, Turkish and Venetian, looked too good to be true, like a stage set. The flowers here included *Colchicum cupanii*, *Withania somnifera* (a medicinal plant, the Winter Cherry, Fam.Solanaceae, cultivated) and *Sternbergia lutea* (which differed very little from *Sternbergia sicula* seen above). Near the beach beyond Vathi, they saw the white-flowered *Narcissus serotinus*, *Colchicum parlatoris* and the Caster Oil Plant, *Ricinus communis*. Near Langada, they saw dung-beetles rolling balls of dung. Growing nearby was *Cyclamen graecum*, but only the leaves, and *Cheilanthes fragrans*, the Scented Fern. In dry grassland near Kelefa Castle, a ruined 16th-century Turkish fort, they saw locusts and *Spiranthes spiralis* (Autumn Lady's-tresses). In the hills, by a shepherd's hut above the village of Aghios Demetrios, they saw *Crocus cancellatus*, *Euphorbia rigida*, *Arbutus unedo* (Strawberry Tree), *Arbutus andrachne* (Eastern Strawberry Tree) and *Cotinus coggyria*, the Smoke Tree. Higher up, above Kenemasti, they found the beautiful *Crocus biflorus melantherus* with exquisite feathering on the flowers. At Lembokambas, they saw masses of *Crocus goulimyi* growing on a threshing floor and the first plants of *Cyclamen hederifolium*. On a hillside near Monemvasia, they found a very rare *Colchicum*, only recently discovered, *C. sfikasianum*, named after the Greek botanist George Sfikas.

The next stop was Mystras, a ruined Byzantine hilltop city towards Sparta, with much restoration work and the Church of Aghia Sophia and frescoes. At Langada Pass on the way back to Corinth, the streams and rivers were all lined with Eastern Plane Trees, *Platanus orientalis*, and the strongly scented *Galanthus reginae-olgae*. On the last day of this tour, they visited Sounion, south-east of Athens, with a ruined Temple of Poseidon. The group saw *Crocus cartwrightianus* (Wild Saffron Crocus) here and a baby Marginated Tortoise. So in total 8 *Crocus* species were found during this autumn trip: *biflorus*, *boryi*, *cancellatus*, *cartwrightianus*, *goulimyi*, *hadriaticus*, *laevigatus*, *niveus* and 6 *Colchicum* species: *bivonae*, *boissieri*, *cupanii*, *parlatoris*, *psaridis*, *sfikasianum*.

In late April to early May 2008, they went to north-western Greece. The Pindhos mountains rise to over 8,000 feet, and are mostly of limestone, though the highest of them, Smolikas, is of serpentine. There are a number of spectacular limestone gorges, the longest and deepest being the Vikos Gorge on the Voldomatis River. There was still quite a lot of rain and snow in the mountains. David had showed photographs of most of the plants that he saw in autumn, but there were so many in spring, that he could only show a fraction of them! The group flew to Thessaloniki and on the first day, before breakfast, went to some nearby salt pans looking for birds – black-winged stilt, a hoopoe, avocets, marsh harrier, spotted redshank, shelduck, etc. After breakfast, they drove south west to the next hotel, at Grevena, high in the Pindhos and spent time on Mount Skopos, an area of dry steppe. The flowers here included *Saxifraga porophylla*, *Scutellaria orientalis*, *Iris reichenbachiana* (some plants with purple flowers, others with yellow ones), *Ophrys sphegodes* ssp. *mammosa* and ssp. *epirotica*.

On the way to the Meteora, they saw *Pinguicula crystallina* by a bridge over a river and spur-thighed tortoises living on the rocks. *Anemone pavonina* was on a hillside near Meteora. In the snow on the Katara Pass, they saw *Daphne blagayana*, while below the Pass were *Dactylorhiza sambucina* (Elder-scented Orchid) with red and yellow flowers, *Fritillaria graeca* var. *thessala* and *Tulipa sylvestris*. Near the top of the Aioos River, they found *Muscari botryoides*, *Crocus sieberi*, *Narcissus poeticus* (Pheasant's-eye Narcissus), *Fritillaria montana* and Stream Frog, Alpine Newts and Yellow-bellied Toad in the ditches. By the roadside towards the Monivotsas monastery was an unidentified Morel Fungus and in a neglected olive grove were *Ophrys helenae*, *Orchis purpurea* (Lady Orchid) and *Orchis provincialis*. A pair of American bullfrogs were seen in a lake at Ioannina, the main town of Epirus.

Heading south, they tried to visit the ancient site of Dodoni, but it was closed. Instead, they

picnicked in glorious sunshine in an area of walnut and olive groves, with distant views of snow-capped mountains. Nearby, they saw *Orchis morio* (Green-winged Orchid), *Orchis papilionacea* (Pink Butterfly Orchid), *Orchis morio x papilionacea*, *Ophrys spruneri* and *Anthyllis vulneraria* with pink flowers! They continued down to the coast, to a hotel on the Amvrakikos Gulf, near Preveza, where they were able to watch fireflies outside after dinner. In the coastal Roda Marshes, they saw Marsh plants, squacco herons, egrets, spoonbills, glossy ibises, pelicans, greater reed-warblers, etc, with a great deal of noise from birds and frogs. Further inland at the village of Stroggili there were bee-eaters flying around. At the chapel nearby, they saw *Bellardia trixago* (*Scrophulariaceae*, looking like a lot of snapdragons in a spike up the stem), *Nigella arvensis*, mason bees at work, glass lizard (looking like a giant slow-worm) and swallowtail butterflies. At the chapel near the village of Vitsa they saw *Delphinium staphisagria*, *Urtica pilulifera* (Roman Nettle) and a tree being systematically stripped of all its leaves by an army of processionary moth caterpillars.

On the terraces of old olive groves on the mountainous island of Lefkada, they saw *Ophrys fragani*, *Ophrys apifera* (Bee Orchid), *Ophrys cornuta*, *Serapias cordigera*, *Serapias vomeracea*, *Orchis coriophora* ssp. *fragrans* (Bug orchid), *Orchis italica*, *Anacamptis pyramidalis* (Pyramidal Orchid), *Aceras anthropophorum* (Man Orchid), *Gladiolus italicus*, *Linum pubescens*, *Aristolochia rotunda*, *Scilla hyacinthoides*, *Barlia robertianum* (Giant Orchid, in fruit). Back in the Pindhos Mountains, on a pasture above a stream which was lined with Oriental Plane trees, with shepherds driving their flock, they saw Praying mantis, Glanville Fritillary and Southern Festoon butterflies and Herman's Tortoises. At the ancient site of Dodoni (once the site of an oracle), are ruins of temples and a vast amphitheatre. Here they saw a Dalmatian algyroides lizard. At the small town of Konitsa, halfway up the mountains, they found *Lysimachia atropurpurea*.

On the slopes of Mount Smolikas, which at 2,637m or 8,654 feet, is the second-highest mountain in Greece, the forests of Black Pine were replaced by Beech. In snow patches were *Crocus veluchensis*, *Scilla bifolia*, *Orchis pallens*, *Corydalis bulbosus* and *Anemone apennina*. The villages of Makro Papingo, followed by Mikro Papingo give access to the Vikos Gorge. Signs claim that the gorge, at over 3,000 feet, is the deepest in the world and deeper than the Grand Canyon, but it was full of swirling mist. Plants by the path of Vikos Gorge included *Aubrietia deltoidea*, *Geranium tuberosum* and *Geranium macrorrhizum*. At Monodendri, by the Voidomaris Gorge, they saw *Aesculus hippocastanum* (Horse Chestnut tree, "at home" here!). At Kipi Bridge, they saw *Isatis tinctoria* (Woad), and laughing frogs, and crested newts at a pond. At the Aioos Gorge, they found *Ramonda serbica* (growing in shady and inaccessible places).

The Tassos family owned the Bourazani hotel, where the group stayed, and much of the land in the area. They were expecting a new road to be built from Trieste, down through the former Yugoslavia and Albania southwards across Greece to Ionannina. There was to be a new bridge at Bourazani, which would increase the number of tourists. So they had built a sizeable modern museum, which was empty, and a lecture theatre. They had also restored a water-mill, and a traditional place for washing clothes and bedding where the water of a local stream goes through a wooden tub. Their woods had been degraded because of high numbers of deer and wild boar, so they had fenced some areas, herded the wild animals in there and fed them, then they shot them, and they were served in the hotel. And very good they tasted! The hotel was extremely well-furnished and comfortable, but a bit odd, because it was decorated with animal skulls, and the coat-hooks and light fittings were made from the antlers of deer. It doesn't look as though the new road has been built, but there is a colourful website advertising the Bourazani Environmental Educational Park, with Museum of Natural History and Convention Centre.

The next day was the last full day in Greece, and they spent much of it exploring a hillside from which deer and wild boar had been removed. They called it George's Wood, after George Tassos, who showed them round. It was advertised as "a surprise" in the holiday brochure. Not quite heaven, but fairly close to it! At George's Wood, they saw *Platanthera chlorantha* (Greater Butterfly Orchid, green here, angled pollinia), *Cephalanthera longifolia* (Sword-leaved Helleborine), *Ophrys epirotica*, *Orchis simia* (Monkey Orchid), *Orchis tridentata*, *Orchis quadripunctata*, *Orchis ustulata* (Burnt-tip Orchid), *Orchis laxiflora* (Jersey Orchid), *Orchis purpurea* (Lady Orchid), *Dictamnus albus* (Burning Bush), and *Paeonia peregrina*. David hoped the presentation had given us some idea of the abundance of species in Greece if we had not been there, and brought back some happy memories, if we had. And if we had not been there yet, we have to remember . . . they need

our money!

3 March 2015

The Island of Crabs

John Tyler

John told us there are two Christmas Islands, one in the Pacific Ocean and one in the Indian Ocean. He went to the latter, a remote speck in the Indian Ocean, about 20 years ago. The island is situated about 2000 miles south of Java in Indonesia, surrounded by an up to 4 miles of deep sea. It now belongs to Australia. Christmas Island is only 14 miles across and started as a volcano on the sea bed. Because of eruptions it grew and grew, and about 60 million years ago it came above the sea level as a bare sandy atoll. The surface now consists of limestone, derived from the coral reefs that surrounded the island. As it was never connected to any land mass, both the vegetation and animals had to arrive by sea. Sea birds flew in and seeds washed onto the shores. There are now about ten species or subspecies of endemic birds and another ten species that use the island for breeding. Another 80 species are visitors, some of which come frequently, but others have only been recorded once. John showed us pictures of two sea birds, the Red-footed Booby and the Greater Frigate Bird, which both breed on the island. They nest side by side, but the Frigate Birds often steal the squids that the Boobies have caught. We were also shown the Christmas Island Emerald Dove, an endemic subspecies. It will have colonised the island after the forest was established. Pigeons such as this dove and another endemic, the Christmas Island Imperial Pigeon, may have arrived with plant seeds in their stomachs, which were dropped on the island and may have germinated, introducing new plant species. The call of the Imperial Pigeon sounds like the roar of a tiger, very frightening!

Plants arrived on the island not only by birds, but also from seeds washed on the shores, e.g. coconuts, which are protected from sea water by their thick seed coats. Coconut palms only grow near the coast on Christmas Island, however, because there are no big animals to take the seeds inland. The niche of tall forest trees that grow inland in Indonesia has been taken by a species that was originally a small shrubby plant, but gradually evolved into a tall tree.

There are very few mammals, only the Christmas Island Fruit Bat, which has a wing span of 20 inches, and two species of shrew. The lack of mammals has had a huge impact on the organisms of the island. For example, birds are not afraid of humans, because they did not have large predators. It provided a vacant space for organisms that would not have done so well if larger mammals would have been around. That space has been taken by crabs, no less than 20 different species. They all eat a very varied diet and are not fussy about their food. They even eat carcasses of crabs, other species or their own kind. The species include the Little Nipper Crab which eats fruits and berries. They are tied to the sea and it took a long time for them to colonise the island. Ghost crabs come onto the beaches at low tide. It is difficult to photograph them as they run very fast sideways (5 miles per hour) and constantly change direction. Hermit Crabs use shells for protection. They pick up debris as food. Their body is twisted like the shells in which they live and the left claw is bigger than the right one. They use the left claw to close the shell.

A big problem on the island is lack of water. Half of the year it is dry and when the monsoon comes, most of the water soaks into the limestone. However, there are two streams and in these the Blue Crab occurs, an endemic species. It feeds from fallen leaves. The males use their big claws for fighting, and therefore they frequently lose a claw. However, they are able to grow a new one. Blue Crabs have hairy legs. Their eggs follow the stream into the sea. The larvae look like shrimps and feed for four weeks at sea before they go back up the stream.

The Robber Crab has colonised the whole island. It is one of the world's largest invertebrates and also can get quite old, sometimes 60 years. They come in two colour forms, orange and blue. They have evolved from hermit crabs, because the left claw is bigger than the right one. They have a powerful bite, one-and-a-half times the force of a human jaw. Apparently, they have lifted a goat from a boat! They are very inquisitive and if you leave things on the beach such as a rucksack,

they will come and examine it. Coconuts are their favourite food. They tackle coconuts with their claws and take the husk off. On their 2nd pair of legs they have spikes that they stick into the end of the coconut and then rip it apart, but this process takes many hours.

The most common crabs on the island are the Red Crabs, which occur right across the island in their millions. They determine what grows on the island and that no ground-nesting birds can survive there. They are also good recyclers of dead plant and animal material. In the dry season (May till November) they stay in deep burrows for most of the day. At the start of the monsoon, triggered by the first rain, they start to migrate to the coast within two hours. The migration starts in the mountains and when those crabs come down the slopes, they are joined by the crabs of lower regions. They travel early morning and late afternoon, avoiding the midday heat. Nothing can stop them; they go over fences and through gardens and houses. They cross the roads in large numbers, so that it is almost impossible to travel at the time of the migration. The tyres of cars that do drive through them are punctured. Killed crabs will be eaten by others. Signs are placed on the roads 'Crabs cross here' and underpasses have been built under the roads to minimise the number killed.

The males arrive at the sea first, drink and wash there and then build big burrows, big enough for two crabs. They lure a female into the burrow and then mate. After mating, the males go back to where they came from, but the females go to the sea to release their eggs. This all happens on the 5th night before a new moon, early in the morning when the tide is highest. Each female releases a hundred thousand eggs, which are washed into the sea. There most of the eggs and the emerging larvae are eaten by fish and whales. The whale shark has the occasion on his calendar and comes at this time to Christmas Island to eat the young crabs. The larvae that survive take four years to become an adult.

Humans arrived on Christmas Island in 1888. The British came first and stripped the forest to mine phosphates. This had a huge impact on the crabs. When the phosphate ran out, they gave the island to Australia. The main industry now is gambling. Rich businessmen from Java (Indonesia) come down to the casinos in the weekend to spend their money; gambling is not allowed in the Muslim country of Indonesia. Fortunately, that does not have an impact on the crabs, but threats to them now include pollution, especially plastics and hunting of the species, especially the Robber Crab which can be eaten. In other more frequently visited islands, this species has become nocturnal so that it is more difficult to hunt them there. The Red Crab is not edible, so that it is not hunted. For the conservation of the wildlife, two thirds of Christmas Island is now a National Park, but the accidentally introduced Yellow Crazy Ant has recently decimated the number of crabs on the island. The ants have been on the island since about 1930, but did not start attacking the Red Crab until the 1990s.

Christmas Island has a huge number of endemic species because of its remoteness, but because the species are so specialised, they have very little resistance to changes.

Following the presentation, John answered a number of questions from the audience.

He said that there were no native rats, but there were two introduced species which did not seem to have an impact on the crabs. There is a flight from Perth in Australia, so the journey time from London is 45 hours. Several thousand people of three communities, Chinese, Malay and white, live on the island. People of the Chinese community eat the Blue Crabs and also like the fruit bats. Apart from fish and crabs, most food is imported. Fresh water is obtained from boreholes.

17 March 2015

AGM and Members' Evening

Summary of AGM

Michael Keith-Lucas thanked all members who contributed to helping run the society. He thanked those who proposed speakers and led walks at Basildon Park. Michael paid tribute to Martin Sell, who had recently died. Martin had made a huge contribution as a former president of the society and a frequent leader of walks. He had always been an active and enthusiastic participant in all our work.

Rob Stallard presented the attendance figures for the evening talks. The average shows a slight increase on the last couple of years to 50 people. Talks by eminent speakers brought in the largest audiences. The Committee had held four meetings in the year, all at the home of Jan Haseler for whose hospitality the committee is most grateful. Rob drew attention to the society's web site as an important form of outreach. He thanked Jan Haseler for efficiently adding all the walk reports and Chris Raper for website administration.

Jan Haseler reported on the society's successful programme of outdoor events for the year from April 2014 to March 2015. There had been 16 weekend excursions, 1 evening walk, 1 coach trip and 11 midweek walks. 1 field trip was held jointly with BBOWT, another was with the Henley Wildlife Group and a third was with the British Entomological and Natural History Society. Walks have been very well attended and some have almost been over-subscribed, but that's a very good problem to have. The annual coach outing was to Porton Down. The midweek walks have been well supported, and enjoyable walks have usually been followed by a relaxed lunch in a nearby pub. Reports of all the excursions are published on the Society's website, with a trip report, photographs and usually a species list.

The Treasurer Ian Duddle noted that membership had changed from 162 to 160 with 22 gains and 24 losses. There were 87 single and 66 Joint/Family memberships. The overall balance shows a loss of £20.73 in cash terms but taking into account of a stock of stamps bought ahead of a price increase there had been a profit of £95.31. Thanks were given to Brian Reed who checks and audits the accounts. Subscriptions for members are to remain at the same amount.

Michael Keith-Lucas has completed his two year term as President. New President Jan Haseler took the chair for the rest of the meeting. Jan thanked Michael for all his work for the society.

Members' Talks

Travels in Southern Africa

Dr. Chris Ash gave a talk about a trip through South Africa, Namibia, Botswana and Zimbabwe that he and Sheelagh Hill made in April/May 2014. Their journey took in the Namibian desert where quiver trees are the only large living plants. There, large Armoured Ground Crickets (*Acanthopplus discoidalis*) (3-4 inches long) were in plague proportions. They saw a 6 foot deadly Cape Cobra (*Naja nivea*) in a tree hunting for nesting birds. The desert supports herds of Oryx despite a scorching 52°C midday temperature. Chris showed some stunning photographs of the desert and the wildlife it supported. The Brandberg Mountain nature reserve in Namibia has artificial oases that bring in a wide range of birdlife including dune larks. They saw the *Welwitschia Mirabilis*, a plant which only has two leaves (up to 5m) long and can live hundreds of years. In Botswana they explored the Okavango delta, still flooded by recent rains in Angola which had attracted Hippos, Bee-eaters and other wildlife. In the Okavango Delta, they saw wildlife living on floating islands, many of which started off as termite mounds.

Dinton Pasture Beetles

John Cole gave a report on the range of beetles he found at Dinton Pastures near the River

Loddon. The study was planned to cover the period 2013-14 but the area was under water last year and so it will be prolonged into 2015. The study area covers 1.5 Ha and is grazed by cows. They have set out mainly pitfall traps and had a reasonably good haul of representatives from 110 beetle taxa. Ten of these were notably scarce. Of the Heteroptera (true bugs) there were 11 from 6 families.

Of botanic interest on the reserve was a red listed plant Tiny Mousetail (*Myosurus minimus*) which was found in an area close to a cattle track.

Mosses and Liverworts at Whiteknights

David Morris was the next to give a short talk about the wide range of mosses and liverworts to be found on the Whiteknights campus of Reading University. The main areas of interest were the woods, woodland fringes and the Harris Gardens. *Grimmia trichophylla* is quite unusual as it is normally found in upland areas and is acid loving; it may have come into Whiteknights on rocks used for landscaping. The epiphytes have benefited from lower pollution levels in southern England. The very small liverwort *Cololejeunea minutissima* has spread here from the coast. Also at Whiteknights is a moss not as widespread as *Orthotrichum pulchellum*, it is *Orthotrichum striatum* which was unknown in the county up until the last few years. *Syntrichia papillosa* seems to be increasing in range while the liverwort *Lophocolea semiteres* has come from the Southern hemisphere and is spreading widely.

Ginkgo Fungus

Fay Newbery gave the last of the member's talks. She had recently discovered a rare fungus that grows on fallen ginkgo leaves. The Ginkgo or Maidenhair tree is a plant that has survived virtually unchanged for hundreds of millions of years. It has no close relatives and its tenacity may be down to its anti-bacterial and anti-fungal properties. When the leaves fall in late autumn they are yellow and Fay found brown haloes around black dots on the leaves. It was identified as *Bartheletia paradoxa* which has only eight records in the UK. Like the Ginkgo that it feeds on, the fungus is unusual and has no other living close relatives. It was recorded in France in the early 20th century and the first British record was at Kew in 2006. Since then it has been found at Aberystwyth, Dublin and Somerset. Fay is keen for members to report locations of Ginkgo trees so that she can survey them and map out the distribution of the fungus.

6 October 2015

Presidential Address: Jan Haseler – The wildlife of the Streatley Hills

Jan Haseler's talk related to the National Trust land at Streatley which includes Lough Down, Lardon Chase and The Holies. See page 43

Photographic Competition 2015
Winning Photographs (see pages 42/43)



Overall Winner
and winner of
Overseas Photograph

Osprey
March 2015
Aransas, Texas

© **Ken White**



Bee Fly feeding on Grape Hyacinth
Winner: Small is Beautiful © - Ian Esland



Coot and Cootlets at Kew Gardens
Winner: Little and Large © - Rob Stallard



Greylag Geese, January 2014 at WWT Slimbridge
Winner: Three of a Kind © - Ken White



Arguing Terns, June 2012 at RSPB Minsmere
Winner: Nature in Action © - Ken White

Photographic Competition 2015: Winning photographs continued and photographs from outings



'Pollinator Bed', Earley -Rainbow seed mix
Winner: Colour Prejudice © - Grahame Hawker



Round Leaved Sundew - Snelsmore Common
Winner: Pattern Perfect © - Chris Ash



Tasty leaf - Hazeley Heath
Winner: Something to Make You Smile © - Chris Ash

Photographs from articles and excursions



Lichen Report - *Usnea Esperantiana* - Prospect Park
Photo courtesy aphotofungi.com



Dormouse - Moor Copse
Photo © Liz Fricker



Brent Goose - Farlington Marshes 10 Jan 2015
Photo © Ken White



Yellow Brain Fungus - Silchester 21 Jan 2015
Photo © Laurie Haseler



Kindbergia Praelonga - Swyncombe 21 Mar 2015
Photo © Laurie Haseler



Herb Paris - Warburg 26 Apr 2015
Photo © Chris Ash



Swollen-thighed Beetle - Hartslock 20 May 2015
Photo © Rob Stallard



Narrow-bordered Bee Hawkmoth - Ashford Hill 30 May 2015
Photo © Sue White



Tree Pipit - Arne 27 Jun 2015
Photo © Chris Ash



Female Adder- Hazeley Heath 15 Jul 2015
Photo © Rob Stallard



Large Venus's Looking Glass - Malshanger 18 Jul 2015
Photo © Chris Ash



Wasp Spider - Fobney Island Meadows 9 Aug 2015
Photo © Chris Ash



September Thorn - Snelsmore 15/16 Aug 2015
Photo © Rob Stallard



Magpie Moth - Ewelme 19 Aug 2015
Photo © Sue White



Black Nightshade - Ufton Nervet 25 Oct 2015
Photo © Rob Stallard

20 October 2015

A local view of Bird Ringing

Carl Hunter Roach (Runnymede Ringing Group)

Carl Hunter Roach is a bird ringing trainer with the Runnymede Ringing Group that covers Hertfordshire, Buckinghamshire, Berkshire, Middlesex and Surrey. He began the talk with a brief history of bird ringing. One hundred years ago Harry Forbes Witherby mused on whether the blackbird in his garden was the same one each year. He put a metal ring around the legs of birds to let him trace their movements.

After many years of bird ringing it is now possible to answer questions like how long birds live and how far they travel. A Goldcrest lives, on average, 18 months but can live up to 4 years. A Blackbird has been known to live to 14 years old and a Buzzard 28 to years old. Sea birds tend to be long lived and the record holder is the Manx Shearwater with an amazing 50 years. The range of birds is a revealing story too, a British Yellowhammer will migrate just 5kms between winter and summer feeding grounds. This is important to know when aiming to increase the numbers of yellowhammers. A Blackbird has a wider range of 5 to 350kms, it seems to make pragmatic choices about food supply. One Blackbird migrates from Norfolk to Devon each year. International migrations are, of course, also common. The Blackcap provides an interesting case; winter migration of Norwegian Blackcaps into the UK had led people to think that a number of British Blackcaps had become resident in the UK rather than migrating to Southern Spain or North Africa. It is only with bird ringing that the true situation, with two slightly different bird species, was uncovered.

Other questions that bird ringing is helping to answer include the stability of the population; how many offspring are produced each year and how many survive the winter.

Carl went on to describe his work in this area, the top five ringed birds are Blue Tit; Blackcap; Chiffchaff; Great Tit and Reed Warbler (captured by nets); while the top five ringed on the nest are Blue Tit; Great Tit; Black-headed Gull; Barn Owl and Nuthatch. Berkshire is particularly important for the rarer Firecrest, it has about 25% of the UK population. At Woolley Firs in 2012 there were no Yellowhammers but now flocks of 70 have been seen and this may be due to more fields being left unploughed over winter.

Birds are caught and ringed on the nest (pulli ringing) or caught in nets, often laid out along hedgerows. By regularly handling birds you find out much more about them than by viewing them. The male Reed Bunting, for example, changes its plumage to be very similar to the female in autumn and can only be told apart in the hand by careful study of the pattern of feathers especially on the head. In the case of the male Reed Bunting the distinctive head becomes black as the feather edges are worn away, which saves the adult having to go through a moult just before the breeding season.

To become a bird ringer you need to go on a BTO residential course and even then you will be permitted to ring only particular species of bird. Alternatively the skills can be learnt from a local ringer who can be found in a list on the BTO web site (see <http://www.bto.org/volunteer-surveys/ringing/ringing-scheme>). This web site also lets members of the public report the ring number or ring colour coding of birds they have seen. There is quite a skill to determining the age and gender of particular species. It is difficult to find volunteers with enough free time to go out early to set up the nets that are used to catch the birds. Costs of the rings range from 18p to £2.60 but when you multiply up by the thousands of birds, the ringing process can be quite expensive. Bird ringing is an international operation with most countries actively co-operating in the important task of monitoring birds. The Runnymede bird ringing group has a web site www.runnymede-ringing.uk.

Carl then answered many questions from a very engaged audience about all aspects of bird ringing.

3 November 2015

Monitoring the Plight of the Bumblebee

Dr Richard Comont

Richard Comont is data monitoring officer of the Bumblebee Conservation Trust. He is involved in scientific studies of the insects and also teaches people to identify bumblebees.

Of the approximately 270 species of bee in Britain only 25 are bumblebees and the remainder are solitary bees apart from the honey bee. Bumblebees are easily distinguished from bees, because they are furry, fat, round, large and make a low buzzing noise when they fly. Only the females can sting and bear pollen baskets on their legs. They smell of citronella when you make them angry. The exoskeleton of bumblebees is black, and all the colour of their bodies is in the long soft hairs attached to it. Old bumblebees can be almost bald and black!

Bumblebees belong to the order Hymenoptera, genus *Bombus*. There are about 250 species worldwide, so that a rather large proportion, 10% of them, occur in Britain. There are cryptic species that can only be distinguished by their DNA. They are cold-adapted and occur predominantly in the Northern Hemisphere. They are as it were 'warm-blooded' as they create their own heat, vibrating their bodies rather than their wings as moths do. They are therefore much less likely to be noticed by predators as they warm up, but it also means that bumblebees have high energy requirements and constantly need to visit as many flowers as possible. They are only 40 minutes away from exhaustion and running out of energy.

Bumblebee Life cycle: Queens live in a hibernaculum, which they construct for themselves, from October or November onwards until February, but sometimes until as late as May or June. As soon as they come out, the queens are looking for food. Pussy Willows are a good source of nectar and pollen for them in early spring. Then they try to find a place for a nest, for instance in a rockery, a crumbling wall, mouse nest, bird box, etc. in which they produce their eggs. The nest is not organised in hexagonal combs, but in untidily clustered cells in which the eggs and larvae develop. When a sufficient number of workers have emerged from the pupae, the queen will no longer forage herself, but will stay in the nest producing more eggs. The workers take over the foraging to feed the grubs. The first workers are smaller than the queen, but gradually during the season the new workers increase in size and become more like queens themselves. They can even produce eggs, but the queen can smell which ones are hers and which ones those of her daughters and she will destroy any eggs that are not her own.

Males appear from late May or June and develop from unfertilised eggs. They usually have hairy legs, have more facial hair, often have yellow bands and look more 'scruffy', furry and fuzzy. Thus they look different from the females. This makes it more difficult to identify bumblebees. Besides, although there are only 25 species, 91 different colour patterns can be distinguished in the British bumblebees.

Foraging takes place up to 10 km from the nest, but 400 m is a more usual maximum distance. They use their eyes to find the way back. There are usually 40-200 workers in a nest (but in extreme cases there may be 4000!), which forage from March to September. The greater the number of workers, the further away from the nest they can go (then it does not matter so much if a few cannot find their way home). There are winter-active colonies of *Bombus terrestris*. They came from Central and South Europe and are now common in the South of Britain. Mahonia flowers are a good source of food for them. However, there are no records yet of males of this species active in the winter, so queens coming out early does not give this species an advantage.

Decline of the bumblebee in Britain: In 1988 the first Atlas of Bumblebees came out and reported a widespread decline since 1900. Two species have become extinct in the last 80 years, *Bombus cullumanus*, (Culluman's Bumblebee) in 1941 and *B. subterraneus* (Short-haired Bumblebee) in 1988. There are now attempts to reintroduce the latter species. We have a reasonable idea of bumblebee distribution in Britain, but not of their abundance. Therefore a National Scheme

(BeeWalk) to monitor abundance has been established, to detect population declines over time, which can give us early warning of potential losses. Surveys are carried out by some 300 volunteers between March and October, 1-2 km transects are monitored monthly to count bees and identify the species. The resulting maps of abundance indicate that only 7 of the 25 bumblebee species are common in Britain, *B. terrestris*, *B. pratorum*, *B. lapidarius*, *B. lucorum*, *B. pascuorum*, *B. hypnorum* and *B. hortorum*. The reasons for decline could be manifold, such as predators, diseases, insecticides, changes in agricultural methods and habitat loss. Predators are only a minor reason for decline, as they have co-existed with bumblebees for perhaps millions of years. They include the Cuckoo bumblebees, which kill the queen and take over the nest, so that they get the offspring of the killed queen to feed their own grubs. The cuckoo bees hang around the nest and make preliminary incursions, thus picking up the smells from the nest itself. In the dark of the hive, the workers cannot see that the intruder is not their own queen. As she also smells the same as their previous queen, the workers have no suspicion. Cuckoo bumblebees look similar to the species they predate on, but are generally darker in appearance with sometimes very dark wings and no pollen baskets on their legs. They emerge later in the season. There are also parasitic flies that lay their eggs in the bumblebee and the larvae eat them from inside. Mice eat 25% of hibernating queens and birds eat them, but that does not cause a serious decline. Insecticides, on the other hand, caused a major decline in the 1950s; the neonicotinoids introduced in 1994, which are blamed now, probably did not make the situation much worse than before. More frequent applications of insecticides which are carried out at present, are having very deleterious effects, however. Probably the main reason for the decline of bumblebees is habitat loss. 98% of flower-rich grassland has been lost in the UK since the 1940s which provided the bumblebees with nectar and pollen. There have been many changes in agriculture since that time, which resulted in monocultures with hardly any wild flowers remaining. Although oil seed rape has flowers, they flower only for six weeks, and then the wild bees and bumblebees have no food for the remainder of the summer. Hedgerows are disappearing to provide more agricultural land.

We should be worried about the decline of bees and bumblebees because they have a huge commercial importance as pollinators. Insect pollination was worth £603 million in 2014. 75% of crop species need pollination. If that had to be done by people using paint brushes instead of bees, that would cost 14.2 billion Euros each year in Europe and 265 billion Euros worldwide. That is a good economic reason to stop common wild bees and bumblebees becoming rare. They are much better at pollinating plants than honeybees. Wild bees do that 300 times better per individual (but honey bee colonies are much larger of course, which make up for it to a certain extent). Honey bees only have a short tongue and cannot pollinate flowers with a long tube such as foxgloves. Therefore a great variety of bees is needed for pollination, covering the full range of lengths of tongue.

17 November 2015

Between the Woods and the Water: the Natural History of Romania

Owen Mountford

Owen Mountford is a plant ecologist at the Centre for Ecology and Hydrology and knows Romania very well, since retiring in 2006 he has spent half his time there.

Romania has an extremely diverse range of wildlife habitats, with some very special species, particularly plants. Romania encloses a curve of the Carpathian Mountains with the mighty Danube to the south making its way to its extensive delta. The River Siret runs to the east and River Mures in the West. This topography gives a wide variety of ecological habitats ranging from alpine grasslands to marshes; and also ranges from Central Europe to Mediterranean and from Russian steppes to Black Sea coast. Indeed Romania has a wider range of habitats than any other EU country. Owen surveyed the habitats using the Natura 2000 (N2K) list which is an E.U. initiative that defines the many different habitats that deserve protection.

Owen's talk then took us through the major divisions of habitat types with many wonderful photographs of the plants that can be found there.

Coastal and Halophytic habitats

There are eleven N2K habitats which are present in Romania: Mediterranean; sand dunes; sea cliffs; tidal areas; salt marshes; inland dunes. *Hippophaë rhamnoides* (Sea Buckthorn) covers some dunes.

Freshwater habitats

Both stagnant and running water habitats are well represented. Species include:

Trapa natans (Water chestnut), *Salvinia natans* (Water fern) with delta aquatics:- *Najas marina*; *Nymphoides peltata* (Fringed water-lily) and *Chenopodium rubric.*

Some of the rivers remain unregulated by weirs and reservoirs. There are a number of pristine mountain lakes.

Temperate Heath and Scrub habitats

There are six of the twelve N2K habitats, three of which have priority status in Romania. Species include *Pinus mugo* (mountain pine) and *Rhododendron hirsutum.*

There are many different types of scrub from Sub-Mediterranean to pre-steppe brush with species such as *Fraxinus ornus* (Manna ash) and *Sorbus graeca* (Greek whitebeam).

Natural and semi-natural Grasslands

All except one of the N2K grassland habitats are represented in Romania; including hay meadows; natural grasslands; semi-natural dry grasslands. The meadows are still farmed in the traditional way without mechanisation which has helped maintain species diversity. Flower species include *Campanula cervicaria* (Bristly bellflower); *Pilosella aurantiaca carpathicola* (Fox & cubs) and *Scorzonera purpurea rosea* (Purple Viper's-grass)

Rocky Habitats and Caves

This group includes scree, caves, glaciers and some calcareous areas. Romania has eight N2K habitats, of which one is a priority. Species include: *Rumex scutatus* (French sorrel); *Papaver corona-sancti-stephani*; *Campanula alpina* (Alpine bellflower); *Hypochaeris uniflora*; *Doronicum carpaticum*; *Pritzelago alpina* and *Gentiana acaulis* (Stemless Gentian); *Silene lerchenfeldiana*; *Dianthus glacialis gelidus*; *Chamorchis alpina* (Alpine Orchid) and *Nigritella nigra* (Black Vanilla Orchid)

Forests

In Romania there are 28 N2K forest habitats, nine of which are priority. About a quarter of Romania is still covered with native forest. There are *Luzulo-Fagetum* beech forests; Sub-Atlantic and Medio-European oak and oak-hornbeam forests of *Carpinion betulii* (Hornbeam). There are twelve species of oak tree. Forest flowers include: *Cicerbita alpina* (Alpine Sow-thistle); *Erythronium dens-canis* (Dog's tooth violet) and *Hepatica transsilvanica* (Liverwort). There are orchids in the forest including *Epipactis microphylla* (Small-leaved Helleborine) and *Cypripedium calceolus* (Lady's-slipper orchid). In the Transylvanian hot-springs there is the unique *Nymphaea lotus var. thermalis* (Hot Spring lotus).

As well as the main categories of habitat there are also some particularly special habitats: Stipa grassland; Dacian oak-hornbeam forests; Moesian silver lime forests; Eastern white oak forests and the Grass-steppe of Transylvania. The grassland steppe is rich in many flowers: *Asyneuma canescens*; *Clematis integrifolia*; *Eryngium planum* (Sea holly); *Verbascum phoeniceum* (Purple mullein); *Campanula sibirica*; *Salvia nutans* (Nodding sage); *Linum hirsutum*; *Iris pumila* (Pygmy iris); *Orchis tridentata* (Three-toothed orchid) and *Echium russicum.*

There are Mediterranean salt meadows with *Juncetalia maritimi* typical of Black Sea coast and fixed coastal dunes with herbaceous vegetation which includes: *Pulsatilla pratensis* ssp. *hungarica*; *Iris humilis* ssp. *arenaria*; *Centaurea pontica*; *Marsilea quadrifolia* (Four Leaf Clover) actually an aquatic fern and *Aldrovanda vesiculosa* (Waterwheel plant). The heathland areas are not made up of the western heathers. Instead there is the Eastern heather: *Bruckenthalia spiculifolia*.

Owen turned briefly to the fauna of Romania which is as spectacular as the flora. Romania has half of Europe's large carnivores. For example there are 1,100-1,300 lynx; 4,500-5,000 bears (largest European population) and 2000-2500 wolves.

The Danube delta is one of the most important European wetland areas with 90 bird species of special interest. There are 2,800 pairs of Glossy Ibis which is about 12% of European population; for the Pygmy Cormorant there are 8,500 pairs which is about 22% of European population. There are also many White and Dalmatian Pelicans in the delta.

Owen finished his talk by explaining the reason for the title 'Between the Woods and the Water', which was that Patrick Leigh Fermor wrote a book of that name describing his walk through the region in the 1930s. It remains a very evocative description of the natural history treasures of Romania.

1 December 2015

The Sulham Gap area from a geological perspective

Professor Peter Worsley

Peter Worsley has now chalked up 50 years of living in the area, with one six year break at Nottingham University. He was Professor of Quaternary Geology at Reading University 1989-2000 and is now an Emeritus Professor there. His areas of study have included the Kennet Valley basin but this has recently been enlarged to include the Sulham Gap which is the valley between Theale and Pangbourne.

The geological layers of the area in order of age are: Chalk, then a gap of 10 million years followed by the deposition of the Reading Formation of estuarine clays, silts and sands; then London Clay Formation made up of marine silts; then a gap of 50 million years followed by deposition of Plateau Gravels carried by rivers; this was followed by river terraces laid down in Ice Ages. The final phase was of floodplain deposits of peats; tufa; some gravel and silts.

Peter played tribute to Herbert Hawkins 1887-1968 who was RDNHS geology recorder from 1922-68 together with two terms as President of our society. Herbert Hawkins was particularly interested in the Sulham Gap and produced a report for the Geologists Association in 1926 as well as an accurate map. He emphasized the importance of studying what might seem meaningless rather than that which is easy to interpret.

The Sulham Gap contains two water courses, the River Pang that flows from Compton to Pangbourne and the Sulham Bourne to its east that flows from Englefield and meets the Thames just to the east of Pangbourne. The Sulham Gap has a thick deposit of 5 metres of sand and gravels which will be worth extracting at some time in the future. These were laid down in alternating cold and warmer periods during the Ice Age. In colder periods the braided rivers build up gravel beds with no vegetation which are cut down into during warmer periods which had lush vegetation. At this time the Thames flowed north-east along the foot of the Chilterns, it had not yet broken through the Goring Gap. The maximum extension of the Anglian ice sheet did not reach this far south (c. 450,000 years BP).

If you look at the composition of sands and gravels in the Sulham Gap, what is unusual is that it has gravels nearly entirely of flint rather than the quartz rich gravels of the Thames. This implies

that up to the end of the last Ice Age, the Kennet flowed though the Gap rather than its current course to the south of Reading. There is still debate as to why the Kennet changed its course 10-11,000 years BP. The candidates are icing; uplift due to ground ice; tectonic uplift; mega-flood; chalk dissolution or a mixture of all these effects. Originally Peter favoured 'icing' as the mechanism, which is where springs bring up water which then freezes to form large ice blocks. The process can be seen at work in Canada today. However, during winter floods, Peter saw shallow marshy basin areas of lenticular form. This suggests that they may be remnants of pingos which are formed when upwelling ground water inundates surface layers that then freeze to form a characteristic dome in the permafrost, which when it melts leaves a shallow depression. Pingos could have obstructed the River Kennet and caused it to change its course.

Peter then described the flood that hit Pangbourne on July 21st 2007. In the River Pang catchment area, two months of rain fell in one day and 106 houses were inundated. The main cause was that the Pang overbanked into the lower course of the Sulham Brook. The Sulham Brook is lower because the marshland peat has been removed and the River Pang was partially canalized to drive the water mills at Tidmarsh and Pangbourne. The Sulham Brook's flow was restricted at two culverts which led to flooding along Bourne Road and Reading Road. High waters on the Pang in December 2013 also showed how the flooding could easily be repeated and no new measures have been taken to ameliorate it.

15 December 2015

Christmas Party and Photographic Competition 2015

The Christmas party was held on 15th December. Members were served with mulled wine kindly made by Michael and José Keith-Lucas. There were then a number of quizzes to do while eating the festive food brought in by members. There was an entertaining quiz set by Lesley Hawker on the theme of anything green. Meanwhile Rob Stallard had devised a picture quiz of all the months of the year. Jan Haseler organised a 'winter twig' identification quiz.

After the food was consumed Rob Stallard gave an illustrated talk about the ivy bees that have taken up residence in his garden. The competition answers and winners were then announced.

The Photographic Competition attracted 86 entries, an increase on the previous year. The main change from 2014 was that seven of the eight categories were restricted to photographs taken in the British Isles. The standard of entries was high: over thirty of the photos got two or more votes for best in category, and nearly twenty got one or more votes for overall best picture. In three categories two or more photographs got the same number of votes, so the winner was selected by the President.

Five different photographers appeared in the overall list of category winners, while the overall best photograph was a close race between two of Ken White's photographs, with his picture of an Osprey for "Nature in Action" coming out top.

Category	Entries	Winner	Other 1	Other 2	Comment
1. Small is Beautiful: winner selected by chairman	12	Ian Esland	Chris Ash		Two equal votes
2. Little and Large:	3	Rob Stallard			
3. Three of a Kind:	12	Ken White			
4. Nature in Action.	12	Ken White			Best in show
5. Colour Prejudice:	13	Grahame Hawker			
6. Pattern Perfect: winner selected by chairman	15	Chris Ash	Ken White	Rob Stallard	Three equal votes
7. Something to Make You Smile:	10	Chris Ash	Laurie Haseler		LH received two more votes, but as organiser could not win !
8. Overseas photograph: winner selected by chairman	9	Ken White	Ian Esland		Two equal votes

Presidential Address:

The wildlife of the Streatley Hills

Jan Haseler

Some of the finest surviving chalk grassland in Berkshire is to be found on the National Trust land at Streatley and it is home to a number of rare plants and invertebrates. Streatley lies in the Goring Gap, where the River Thames cuts through between the Berkshire Downs and the Chilterns. The National Trust land is on the arc of high ground to the west of the village. The northern block of chalk grassland is split into two large fields, with Lough Down facing north and Lardon Chase facing steeply south. The southern block is called The Holies: approaching from the car park at the top of Lardon Chase, Common Wood is the first section of predominantly Beech *Fagus sylvatica* woodland. At the top of the site is an open area of acid grassland, with Checkendon Wood tucked away in the south-west corner. The eastern side of The Holies is mostly wooded and slopes steeply down towards the valley of the Thames. In the south-east section are two fields of chalk grassland, called Middle Field and Bottom Field. The bedrock is Chalk, laid down in warm shallow tropical seas about 90 million years ago. The Chalk is also found at the surface over a significant proportion of the area. Clay-with-flints covers much of the top of The Holies, beneath the woodland and the open acid grassland area. In the north-west corner of The Holies are deposits of the Westland Green Sands and Gravels, one of the highest and oldest river terrace deposits of the River Thames. The ground beneath the Beech trees on the sandy Westland Green deposits is dry and bare. At its lower edge is a sharp boundary where brambles mark the transition to the damp and slippery Clay-with-flints.

Lardon Chase and Lough Down contain evidence of cultivation dating back to the Iron Age. An archive photograph taken in 1885 shows the eastern slopes of The Holies, which nowadays are mostly wooded, as open grassland. It also shows that the lower slopes of Lardon Chase were cultivated at that time. In 1940, local people raised £756 to buy Lardon Chase from the Streatley Estate and gave it to the National Trust. A report from Bioscan UK, who do the ecological monitoring for the National Trust, states that in 1955-6, Lardon Chase was ploughed and reseeded, with the probable exception of the central steep section of slope. In December 1963, 20 acres of Lough Down were left to the National Trust in the will of Frederick Hallett. The Bioscan report states that in 1965-6, Lough Down was ploughed and reseeded, with the probable exception of the central trackway and perhaps the eastern margins. The last cultivation of the plateau part of

The Holies took place in the 1960s. In 1975, turf from the lower slopes was stripped and sold. Around 1980, part of Common Wood was clear-felled and a clay pigeon shooting range was set up. This is where the area of acid grassland is now. Then an international moto-cross complex was set up on what is now Middle Field. Prompted by strong opposition from the local community, Newbury District Council imposed such strict enforcement orders that the motorcycle scrambling was abandoned in 1987. Following the successful Goring Gap Appeal, The Holies was bought by the National Trust in 1989.

Four herds of cattle graze on the grassland areas, with one herd on Lardon Chase, one on Lough Down and two on The Holies. They are typically on site from May to the end of November, or slightly later on north-facing Lough Down. Avermectins are a class of veterinary medicines which are widely used to control intestinal worms in cattle. They are powerful insecticides which persist in the dung. It is National Trust policy that avermectins should not be used on animals which graze on their land. This is particularly important at a site such as Streatley, where there are a number of rare invertebrates, including some which are closely associated with cattle dung.

Winter is a good time to look at the structure of the woods and the trees. The tall straight Beeches in Common Wood have always been in woodland, while the spreading Beeches on the steep eastern slope of The Holies started life on an open hillside, as was shown in the photograph from 1885. Common Whitebeams *Sorbus aria* on the steep chalk slopes are marked out by a pale halo of leaves on the ground. Their trunks are a smooth dark grey, contrasting with the pale brown of the Ash *Fraxinus excelsior* and Hazel *Corylus avellana*. There are a number of Yew *Taxus baccata* trees in Holies Walk Wood, on the chalk at the south-eastern corner of The Holies. The pink berries on the female Yews provide a winter feast for the birds. Spurge-laurel *Daphne laureola* can be found in the lower section of Holies Walk Wood. The deep call of the Raven *Corvus corax* is heard with increasing frequency at The Holies. Although not common here, they are gradually spreading into the area. Stinking Hellebore *Helleborus foetidus*, which is listed in the Berkshire Rare Plants Register, flowers from January to March. There are a number of plants in the scrubby woodland which borders the back gardens at the eastern edge of Lardon Chase and Lough Down.

Moving on to early spring, the top north-eastern boundary of Middle Field at The Holies, where the chalk grassland borders on woodland, is a sheltered place to find early butterflies. Peacocks *Inachis io* have been observed basking down on the ground here in February. Primroses *Primula vulgaris* and Hairy Violets *Viola hirta* are in flower in March and April on the bank bordering the woodland edge. Hairy Violet is the caterpillar foodplant of the Dark Green Fritillary *Argynnis aglaja*. This is a big orange butterfly with a powerful flight over open chalk downland which is on the wing in July. In 18 years of butterfly transects at Lardon Chase, Dark Green Fritillary has been recorded 5 times and it has also been seen a few times at The Holies. Since 2010, the Silver-washed Fritillary *A. paphia* has also been present in high summer at The Holies, flying around the woodland edges and nectaring on bramble blossom. Hairy Violets are abundant on the chalk grassland at all 3 sites, but the Dark Green Fritillary prefers to lay its eggs on large plants growing on sheltered and warm scrub edge, rather than the small plants of open parched turf. The scrub edge habitat is important for a number of butterfly species and patches of scrub are maintained on Lardon Chase for them.

The acid grassland at the top of The Holies is divided into two fields, a larger western one and a smaller eastern one. There are a number of spreading Goat Willow *Salix caprea* bushes around the edges of the acid grassland and in the hedge between the two fields. Goat Willow is insect-pollinated and on warm early spring days, its yellow blossom is a magnet for bees and early butterflies. Its leaves are the caterpillar foodplant of the Purple Emperor *Apatura iris* and there have been a number of sightings of the adult butterfly in July. In Checkendon Wood at The Holies, Primroses and Early Dog-violets *Viola reichenbachiana* in March are followed by Wood Anemones *Anemone nemorosa*, Yellow Archangel *Lamium galeobdolon* and a superb display of Bluebells *Hyacinthoides non-scripta*. Papist Bushes is the strip of woodland between the acid grassland and the top of the chalk grassland in Middle Field. Its southern section slopes steeply downwards with damp gulleys, where Moschatel *Adoxa moschatellina* can be found. At the end of March, a cluster of about 20 Ruby Elfcup fungi were found here, growing on a branch of moss-covered dead wood.

Out on the chalk grassland, late April and early May is Cowslip time. Some of the best displays of

Cowslips *Primula veris* can be seen in Middle Field and on the lower part of Lough Down. The side dry valley in Middle Field is a good place to find Dingy Skipper *Erynnis tages* butterflies. Dingy and Grizzled Skipper *Pyrgus malvae* are two of the rarer butterflies of the spring. They are included in Section 41 of the Natural Environment and Rural Communities Act of 2006, which lists the species of principal importance for the purpose of conserving biodiversity in England. (Other species from this list which will be described later in this article will be referred to as 'Section 41 species'.) Dingy Skipper larvae feed on Common Bird's-foot-trefoil *Lotus corniculatus* or Horseshoe Vetch *Hippocrepis comosa*, while Grizzled Skipper larvae feed on various members of the Rose family, including Wild Strawberry *Fragaria vesca* and Salad Burnet *Sanguisorba minor*. They occur in low numbers at Lardon Chase – in 18 years of butterfly transect data, 35 Dingy Skippers and 26 Grizzled Skippers have been recorded, compared with, for example, 8,710 Chalkhill Blues *Lysandra coridon* and 15,866 Meadow Browns *Maniola jurtina*. Green Hairstreak *Callophrys rubi*, a small butterfly of warm open areas with sheltering scrub, is another spring butterfly which is seen occasionally.

In Mid May, Meadow Saxifrage *Saxifraga granulata* can be found flowering in clumps beside the trackway and amongst the anthills in the top western section of Lough Down. In 2012, a record 23 plants of Early Gentian *Gentianella anglica*, which is listed in the Berkshire Rare Plants Register, were found close to the former motorcycle track in Middle Field of The Holies. A single plant has been recorded from Lardon Chase and it has also been found in the short turf near the top of the steep south-facing slope in Bottom Field. It is a local and very rare annual plant of short chalk grassland, on ground that is kept short by grazing and trampling. It is scarce in Britain and has the distinction of being one of the very few English endemics. Initially Wild Candytuft *Iberis amara* was also found on the scrambling track but it has not been seen since the turf closed back over the bare chalk. It is fascinating to investigate which plants mark out the former disturbed ground and which plants are missing there. Cowslip and Common Spotted-orchid *Dactylorhiza fuchsii* both appear to be at their densest on the former scrambling area.

Small Blue *Cupido minimus*, our smallest butterfly, is on the wing in late May and June, with a small second generation in August. Its caterpillar foodplant, Kidney Vetch *Anthyllis vulneraria*, is abundant on the steep slopes of Lardon Chase. Scrub edge habitat is particularly important for the Small Blue, partly to provide shelter and partly to protect some of the flowers from grazing animals. They can also be found beside the footpath which runs from the Lardon Chase car park down through the northern section of the Goring and Streatley golf course.

Beech trees grow on the bank which marks the top of the Chalk on the boundary of the National Trust land at The Holies, with the acid grassland above and fields below. At the end of May 2015, 8 White Helleborine *Cephalanthera damasonium* plants were in flower below the Beeches, with another in the Papist Bushes woodland. White Helleborine is listed in the Berkshire Rare Plants Register. In the chalk grassland of the steep southern slope of Bottom Field and amongst the anthills on the top eastern sector of Lough Down, the navy blue and white of Chalk Milkwort *Polygala calcarea* contrasts with the bright yellow of Horseshoe Vetch and Common Rock-rose *Helianthemum nummularium*. Horseshoe Vetch is the caterpillar foodplant of two of the rare blue butterflies of the Streatley Hills, the Adonis Blue *Lysandra bellargus* and the Chalkhill Blue. The male Adonis Blue is a stunning turquoise blue with black chequering in the white wing margins. The female is brown and hard to tell in the field from the female Chalkhill Blue. The Adonis Blue is first seen in late May and early June, while the second generation is on the wing in August and September. The eggs of the first generation, with the caterpillars feeding in high summer, can be laid on any Horseshoe Vetch. But this is a butterfly at the northern limit of its range and the eggs of the second generation, with the caterpillars feeding in autumn and then the next spring, must be laid on small plants in short turf on the warmest south-facing slopes. As a result, the Adonis Blue is only found on the steepest south-facing slopes of Lardon Chase and Bottom Field of The Holies.

Hairy Rock-cress *Arabis hirsuta* has the distinction of having been declared in *The Flora of Berkshire* (Crawley 2005) to be extinct in the county. However, news of its demise was premature because it can still be found on the chalk grassland at The Holies. In June, the short turf at the top of the steep south-facing slope in Bottom Field is coloured purple and white by a dense covering of Wild Thyme *Thymus polytrichus* and Squinancywort *Asperula cynanchica*. Drifts of Dropwort

Filipendula vulgaris flower amongst the anthills on the top west side of Lough Down. Field Mouse-ear *Cerastium arvense* was recorded at the top of Lough Down in June 2015 and a single Fragrant-orchid *Gymnadenia conopsea* was found on Lardon Chase. Fragrant-orchid is listed in the Berkshire Rare Plants Register and is only recorded occasionally at Streatley. Pyramidal Orchids *Anacamptis pyramidalis* are common on all the chalk grassland sites in June and July.

In early July 2009, Bioscan surveyors visited all 3 sites to look for Glow-worms *Lampyris noctiluca* and bats. The commonest bats were the Soprano *Pipistrellus pygmaeus* and Common Pipistrelle *P. pipistrellus*. Serotines *Eptesicus serotinus* were active over the cattle-grazed grassland in Bottom Field. There were several passes of *Myotis* species, probably Natterer's *M. nattereri* and a single pass of a Noctule *Nyctalus noctula*. Most exciting was a single pass of the rare Barbastelle bat *Barbastellus barbastellus* at the eastern end of the acid grassland. In mid-June 2010, 7 more passes of Barbastelle bats were recorded, along the southern edge of Middle Field and around the edges of the acid grassland. The Barbastelle is a medium-sized bat, with a distinctive pug-shaped nose. Its low-amplitude echolocation calls enable it, unlike any other of our bat species, to catch a significant proportion of moths which have hearing organs. Glow-worms have been recorded from all the grassland sites. The male is an ordinary beetle with hard wing cases but the female is flightless. She produces a bright greenish-yellow glow from the underside of the last two sections of her body. The females glow for several hours as soon as it gets dark but switch off their glow once they have mated. The eggs hatch after a few weeks and remain as larvae for one or two further summers, feeding on small snails and slugs.

Chalk grassland flowers in July include Yellow-wort *Blackstonia perfoliata*, Dwarf Thistle *Cirsium acaule*, Small *Scabiosa columbaria* and Field Scabious *Knautia arvensis*, Common *Centaurea nigra* and Greater Knapweed *C. scabiosa* and Marjoram *Origanum vulgare*. The latter is a wonderful insect plant and a magnet for bees and butterflies. Clustered Bellflower *Campanula glomerata* appears to be commonest on the former motorcycling area. The Chalkhill Blue is the largest of the blue butterflies at Streatley and the pale blue male is unmistakable. It has a single generation, with the adult butterflies on the wing in July and August. It over-winters as an egg and the caterpillar hatches out in the spring. It is not as exacting in its requirements as the Adonis Blue and is also found on north-facing Lough Down, as well as Lardon Chase and the steep south-facing slope of The Holies. It can occur in high numbers and is the second commonest butterfly on the Lardon Chase butterfly transect. The Striped Lychnis *Cucullia lychnitis* moth is another of the Section 41 priority species for the site. The caterpillar feeds on the flowers and seeds of Dark Mullein *Verbascum nigrum*, a short-lived plant of disturbed ground on the Chalk. Initially, it was abundant on the former motorcycle tracks. Areas of scrub clearance have been colonised by Dark Mullein, with the Striped Lychnis finding it quite quickly, but after a few years, the numbers of plants and moths drop away.

Deadly Nightshade *Atropa belladonna*, Basil Thyme *Clinopodium acinos*, Bastard-toadflax *Thesium humifusum* and Pale Toadflax *Linaria repens* are all listed in the Berkshire Rare Plants register. In 2015, a Deadly Nightshade plant appeared on a recently-cleared area of scrub on Lough Down and it has also been recorded from Lardon Chase. Basil Thyme is a tiny annual plant of bare places in chalk grassland. In late July 2015, about 30 plants were found in cracks in the tarmac in the old road which zig-zags steeply up the hillside in Bottom Field. Bastard-toadflax is semi-parasitic on the roots of various plants, including Squinancywort and members of the Scabious family. It is commonest at the top of the steep south-facing hillside in Bottom Field. Carline Thistle *Carlina vulgaris* is a biennial which is found on the chalk grassland in August. It is particularly noticeable on the former motorcycle tracks. In 2015, a number of plants of Pale Toadflax were growing in an area where scrub had been cleared at the top of Bottom Field.

Migrant birds pass through the site in late summer. On 17 August 2013, a Pied Flycatcher *Ficedula hypoleuca* was spotted in a bramble patch in the acid grassland area at the top of The Holies. Family parties of Spotted Flycatchers *Muscicapa striata* are regularly seen at Lardon Chase and Northern Wheatear *Oenanthe oenanthe* and Common Redstart *Phoenicurus phoenicurus* have also been recorded there. The Hornet Robberfly *Asilus crabroniformis* is another of the Section 41 priority species which has been recorded from the chalk grassland. It is a large predatory insect of unimproved pasture which is declining throughout much of its European range. The eggs are laid in or beneath cattle dung and the larvae live for 2-3 years in the surrounding soil, feeding on dung

beetle larvae and other soil-borne invertebrates. They feed on a range of insects including grasshoppers, butterflies, bees, beetles and flies, typically those most associated with dung.

Devil's-bit Scabious *Succisa pratensis* is a magnet for late-season butterflies. Autumn Gentians *Gentianella amarella* are found on all 3 chalk grassland sites, with a good display along the eastern margin of Lough Down. In September 2015, Chiltern Gentians *G. germanica* were to be seen in a cleared scrub area in the top corner of Bottom Field. The Holies must be one of the few sites in the country with Early, Autumn and Chiltern Gentians. In autumn, the woods and hedges provide a feast of berries, attracting flocks of winter thrushes. Checkendon Wood is a good site for woodland fungi, while Lardon Chase has a colourful collection of waxcaps. Throughout the year, the National Trust land at Streatley has a rich variety of wildlife, including a significant number of rare or uncommon species. We should be grateful to the National Trust for looking after such a special place.

Acknowledgments

I would like to thank the many people who have contributed to this report, with a special thank you to the National Trust and to site manager Granville Nicholls; to Geoff Moxon of Bioscan UK; to the experts who have provided me with identifications and information, and to the photographers.

References: Crawley, M.J. (2005) *The Flora of Berkshire*. Brambleby Books, Harpenden, ISBN 0-9543347-4-4

Conserving the White-letter Hairstreak

Peter Cuss

The White-letter Hairstreak is a UK BAP priority species. Figures from the UK butterfly monitoring scheme show a population decline of 87% since 1976. The greatest factor for this decline was the terrible loss of elm, the larval food plant, due to Dutch elm disease caused by the fungus *Ophiostoma novo ulmi* and spread by elm bark beetle. It is still easy to find cut hedgerow elm and young suckering elm, as these can avoid the disease but sadly this is of no use to the butterfly which is dependent on mature flowering elm. The larva hatch out in March, having overwintered as an egg fixed firmly to an elm twig, and seek out the trees opening flower buds on which it initially feeds before moving onto the seeds and finally the leaves. The pupa is formed at the end of May or early June and the butterfly typically emerges at the end of June.

Sulham Woods was once a good place to see this butterfly but it has not been recorded here for many years. I also used to see it at Sonning, next to the RBCS boat house, but again not for a long time. I did manage to find a small colony in Purley last year on the Oxford Road on a roadside elm at the bus stop near the junction with Knowsley Road. This goes to show how the butterfly can be at home in an urban setting; it just needs that mature elm! Another colony which I have been watching for several years is on an elm in the hedge between the Pack Saddle pub at Chazey Heath (Oxfordshire) and Mapledurham Golf Course. The elm tree they used was starting to succumb to Dutch Elm Disease and last year's adults seemed to be paying more interest in another elm further down the hedgerow. It will be interesting to see if they have adopted this new elm. Purley and Maidenhead Thicket are, as far as I know, the only recorded sightings of WLH for Berkshire in 2015. It is a local species but is also very easy to overlook and it is hard to believe there are not more Berkshire colonies waiting to be found.

Butterfly Conservation, Upper Thames Branch, are launching a project to help conserve the White-letter Hairstreak (WLH) and are seeking volunteers to help better map its population across Berks, Bucks and Oxon. It's good fun and very rewarding when you find a new colony! I am keen to gather as much data as possible from across the three counties, but reports from Berkshire and Oxfordshire would be particularly welcome as there are so few from these counties.

The best way to find a colony is to search for likely elms in April. At this time of year the elms have the seeds on and they really stand out. Larger elms (and in particular wych elm) in a sunny position are the most likely to support a colony, but any flowering elm is worth a look. Having made a list of the elms found it is then a matter of searching them (on a sunny day!) once the adults start to emerge. Late June and early July is the best time, when the butterflies can be seen in brief spiralling flights in the tree canopy. Any small butterfly exhibiting this behaviour at the top of an elm, at this time of year, is likely to be WLH but do take your binoculars as they are unlikely to come down very far! If you haven't looked for WLHs before I would recommend going onto www.ukbutterflies.co.uk, click on White-letter Hairstreak and go down to the videos section. Here you will find a superb short film by Peter Eeles showing the life story of the WLH. In particular it shows well how the adults look in flight over the tree canopy. Patience is key and if you don't see it first time it is worth returning a couple of times. If you find a colony all you need to do is send the details to me at pj.cuss@gmail.com Please include your name, the location, the date and a grid reference. A big thank you in advance for anyone willing to help in this project and happy hunting!

Harvest Mice at Moor Copse: a new species on BBOWT's reserve

Ailsa R.E. Claybourn

I'd seen Kestrels and Barn Owls hunting over the meadows at Moor Copse, assuming they were looking for "run of the mill" rodents – Field Mice and voles, probably (no offence, sundry rodents!). It was only when I attended a training day, run jointly by the Wildlife Trust and the Oxfordshire Mammal Group in November 2014 at BBOWT's Chimney Meadows that I began to think there may be Harvest Mice at Moor Copse too.

A group of several willing volunteers had found 60 nests in a relatively small area of field margin that day, in a tall-grass habitat that closely resembled that along the hedge-line in Corner Field at Moor Copse. A week later, I went searching through the tussocks in Corner Field, and, to my delight, found 2 nests (well, I was on my own!). One was near the hedge, but the other was in a wetter area alongside one of the drainage ditches which run across the meadow.

Harvest Mice (*Micromys minutus*) are Europe's smallest mammal, 50-70 mm in length and weighing-in at a tiny 4-6 grams (think 4-6 teaspoons of sugar, or one large paper-clip!). They build nests all year round, but the ones I found were the bigger, breeding nests built by females for their 2 – 3 litters per year. A new nest is built for each litter, and these will be found within about 5 metres of each other, and around 30 cms from the ground. Breeding nests are 10 cms in diameter, whilst non-breeding ones are 5cms. They are the only rodent to build woven grass breeding nests so high above ground.

The breeding season can last until October, so any surveys must be delayed until November, which is when BBOWT and the Oxfordshire Mammal Group ran another joint training session at Moor Copse in 2015. This time, 13 of us found 11 nests, confirming that Harvest Mice are well and truly present at Moor Copse.

Harvest Mice are a Biodiversity Action Plan species: it is thought that they have become scarcer in recent years because of changing farming methods but, as the Mammal Society puts it, 'there have been no reliable studies to quantify this change'. The findings at Moor Copse will add a small piece to this nationally important jigsaw.

We hope to run a session at Moor Copse for RDNHS members in November 2016, learning more about Harvest Mice and surveying for nests.

New Sightings at Moor Copse 2015

Anne Booth (volunteer warden Moor Copse)

2014/5 has been an exciting time at Moor Copse. We have had two new species recorded and the return of one not seen for many years. All are Biodiversity Action Plan priority species.

White Admiral (*Limenitis camilla*) used to be seen here occasionally until 2005 after which there are no records. The disappearance of this woodland butterfly was puzzling as the larval food plant, Honeysuckle, was there in profusion with good patches of the favoured nectar plant, Bramble. Butterfly Conservation says that although occurring widely in southern Britain, there has been a dramatic decline in the last 20 years for reasons as yet unknown.

The last recorded sighting on June 27th 2005 was made by Martin Raper on the same day as the first for Silver-washed Fritillary since the only previous record in 1984! The Fritillaries have been seen every year since in greater numbers and have increased their range to cover most of the original reserve. This encouraged us to hope that we would soon be seeing White Admiral again, but it wasn't until July 9th 2015 that one was seen on Honeysuckle in the main ride of Park Wood. There were a couple more sightings, one in Hogmoor in the glade on Vinula Ride, possibly indicating there was more than one individual. We wait with anticipation to see what 2016 will bring!

Harvest Mouse was first recorded in 2014 in the new part of the reserve, or 'extension' which was acquired in 2007, see article by Ailsa Claybourn.

Dormouse (*Muscardinus avellanarius*) has never been recorded at Moor Copse. However in 1996, as part of the Dormouse Recovery Project which covered BBONT's three counties, hundreds of dormouse boxes were put up on suitable reserves. This included 56 at Moor Copse. It was thought that it would be a good way to survey for the animals as they would use them if provided, that was the theory anyway! The boxes were checked every year. No signs of Dormouse were ever found although they were used by other species, especially Wood Mouse and Blue Tit, and occasionally wasps, wren, shrew and once a bat.

A fleet of 75 new boxes was put up in 2011 following the discovery of some Dormouse nibbled nuts in Hogmoor Copse. On October 24th 2015, Liz Fricker, who is based in the BBOWT office at Greenham, was doing a routine check of all the boxes when a Dormouse jumped out of a box and ran round the stool. It was thought to be one of that year's young. (See Liz's photo on page.34) There was nesting material in an adjacent box which was probably Dormouse too.

www.moorcopse.org.uk

RECORDER'S REPORT FOR LICHENS

Fay Newbury

Lichenological activity has continued at a low level in the local area during 2015. The one day course for Masters students at the University of Reading took place again in February on Whiteknights Campus.

There has also been a one-day introduction to lichens run at the Woolley Firs Environmental Education Centre by BBOWT. This day resulted in one of the two new county records that have been made this year. A lichenicolous fungus was found both on a tree near the centre and on an RDNHS member's car!

Syzygospora physicearum is a bulbous-looking pale pinky-beige fungus that grows on species of *Physcia*. Both Berkshire specimens were growing on *Physcia adscendens*.

The other new species was found by Marie French in Prospect Park. She spotted a very granular-appearing *Usnea* specimen which turned out to be *Usnea esperantiana*. This is the third species of *Usnea* now recorded in the county. Lichens in the genus *Usnea* are fruticose (made up of lots of little branches). They are well-known for disliking atmospheric pollution so they all vanished from much of industrialised Britain during the seventies and eighties when sulphur dioxide concentration in the air was high. It is great to know that they are making a comeback.

Photo (see page 34) of *Usnea esperantiana* courtesy of www.aphotofungi.com .

RECORDER'S REPORT FOR BOTANY

Renée Grayer

Among the most outstanding weather features of 2015 were the unusually mild autumn and winter months, especially December, with an average day and night temperature of 8°C, four degrees higher than average. As a consequence, many spring plants started flowering at least one month earlier than in other years. We have seen winter aconites, primroses, Barren Strawberry and early varieties of crocuses, snowdrops and daffodils fully in flower before the end of the year. During the RDNHS trip to Silchester on 19th December, Tony Mundell recorded more than 30 wild plants in flower due to the exceptionally mild December weather, including Daisy, Lesser Celandine, Herb Robert, Hogweed, Holly, Red and White Dead-nettle, Nipplewort, Dog's Mercury, Creeping Buttercup, Common Ragwort, Hedge Mustard, Great Mullein, Germander Speedwell, Bush Vetch and Sweet Violet.

For the names of the plant families and species below, the 3rd edition of C.A. Stace's New Flora of the British Isles (2010) is followed.

PTERIDOPHYTA (Ferns and Allies)

4. Ophioglossaceae

Ophioglossum vulgatum Adder's-tongue
26 Apr 15 RDNHS trip to Warburg
Reserve, Bix. SU721880 (CA)

13. Aspleniaceae

Asplenium adiantum-nigrum Black
Spleenwort
2 Aug 15. Southcote, North side of
railway underpass. SU69427160 (DM)
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, several plants. SU64156213
(TM)

Asplenium ruta-muraria Wall-rue
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, plentiful. SU64116210 to
64106209 (TM)

Asplenium scolopendrium Hart's-tongue
19 Dec 15. RDNHS trip to Silchester,
Roman Wall. SU64156213 (TM)

18. Dryopteridaceae

Polystichum setiferum Soft Shield-fern
8 Apr 15. Aldermoor Wood, Woodley.
SU776740 (DM)
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, at least 20 plants in hollow
sunken area below the wall. SU63706215
(TM)

19. Polypodiaceae

Dryopteris cambrensis Narrow Male-fern
1 Jun 15. Whiteknights Campus, large
plant on eastern side of bridge near grotto.
SU73917147 (DM)

Polypodium interjectum Intermediate
Polypody
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, several plants on walls by
church. SU64356237 (TM)

ANGIOSPERMAE (Flowering Plants)

30. Papaveraceae

Papaver argemone Prickly Poppy
18 Jul 15. RDNHS trip to Malshanger
Estate. SU572538 (JC)

32. Ranunculaceae

Helleborus foetidus Stinking Hellebore
4 Jan 15. Lardon Chase, Streatley, four
plants. SU589811 (JH)
4 Jan 15. Lough Down, Streatley, one
plant. SU588811 (JH)

Helleborus viridus* ssp. *occidentalis
Green Hellebore
26 Apr 15. RDNHS trip to Warburg
Reserve, Bix. SU719878 (CA)

Myosurus minimus Mousetail
1 May 15. Dinton Pastures, along footpath
and around the cattle trough. SU775722 (DM)

Pulsatilla vulgaris Pasqueflower
15 Apr 15. Aston Upthorpe Downs, 20
flowers, two outside enclosure. SU544834
(JH)

Ranunculus arvensis Corn Buttercup
1 Jul 15. Fobney. A few plants in drying
creek opposite the island. SU702710 (JL)

38. Saxifragaceae

Saxifraga granulata Meadow Saxifrage
3 May 15. RDNHS trip, Hampstead
Norreys churchyard. SU529762 (DG)
3 May 15. Bucklebury Churchyard,
abundant. SU552708 (JH)
13 May 15. Lough Down, Streatley, 26
clumps. SU587812 (JH)

Saxifraga tridactylites Rue-leaved
Saxifrage
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, numerous young plants already
in growth on the wall. SU63916206 and
SU64026207 (TM)

Chrysosplenium oppositifolium Opposite-
leaved Golden-saxifrage
30 Mar 15. Beenham, frequent. SU678688
(JL)
8 Apr 15. Aldermoor, Woodley, along
stream. SU776740 (RG)

39. Crassulaceae

Umbilicus rupestris Navelwort
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, locally abundant with many
hundreds of plants in a shady place on the
wall. SU63616223 (TM)

42. Fabaceae

Genista tinctoria Dyer's Greenweed
30 May 15. RDNHS trip to Ashford Hill
NNR. SU562621 (SW)

Lathyrus latifolius Broad-leaved
Everlasting-pea
13 Sep 15. Decoy Heath. SU613634 (JL)

Lathyrus linifolius var. montanus Bitter-
vetch
30 May 15. RDNHS trip to Ashford Hill
NNR. SU562621 (SW)

Trifolium arvense Hare's-foot Clover
1 Jul 15. Winnersh Triangle Car Park.
SU776716 (DM)

43. Polygalaceae

Polygala serpyllifolia Heath Milkwort
15 Jul 15. RDNHS walk to Hazeley
Heath. SU764580 (JC)

44. Rosaceae

Malus sylvestris Crab Apple
15 Jul 15. RDNHS walk to Hazeley
Heath. SU764580 (JC)

Sorbus torminalis Wild Service-tree
16 Dec 15. RDNHS walk to Kingwood
Common. SU694831 (SH)

Agrimonia procera Fragrant Agrimony
25 Oct 15. RDNHS trip to Ufton Nervet.
SU625699 (GS)

Comarum palustre Marsh Cinquefoil
27 Sep 15. RDNHS trip to Greenham
Common. SU50996424 (JW & MK)

Geum x intermedium Hybrid between
Wood and Water Avens
3 May 15. Moor Copse. SU634740 (SW,
DM & RG)

Potentilla x mixta Hybrid Cinquefoil
9 Jul 15. Whiteknights Campus, two
colonies. SU73557225 (DM)

Sanguisorba officinalis Great Burnet
1 May 15. Whiteknights Campus.
SU737718 (DM)
31 May 15. Moor Copse. SU639735 (DM)
26 May 15. Fobney Island. SU70217109
(DM)
9 Aug 15. RDNHS trip to Fobney Island.
SU70047113 (RG)

58. Parnassiaceae

Parnassia palustris Grass-of-Parnassus
Oct 15. Cothill Fen NNR. SU46049980
(DM)

59. Oxalidaceae

Oxalis exilis Least Yellow-sorrel
19 Dec 15. RDNHS trip to Silchester,
Churchyard. SU64336236 (TM)

60. Euphorbiaceae

Euphorbia exigua Dwarf Spurge
18 Jul 15. RDNHS trip to Malshanger

Estate, many specimens. SU570535 (JC)

63. Violaceae

Viola odorata* var. *dumetorum Sweet Violet (white-flowered, with beards on the petals)
19 Dec 15. RDNHS trip to Silchester, Roman Wall. SU635625 (TM)

65. Hypericaceae

Hypericum elodes Marsh St John's-wort
5 Sep 15. RDNHS trip to Burnham Beeches. SU954849 (JH)

76. Thymelaeaceae

Daphne laureola Spurge-laurel
23 Jan 15. Holies Walk Wood, Streatley, thicket, in flower. SU594799 (JH)
28 Jan 15. Basildon Park (Nat. Trust), in flower. SU609783 (JH)
16 Dec 15. RDNHS walk to Kingwood Common, already in flower. SU694831 (SH)

Daphne mezereum Mezereon
26 Apr 15. RDNHS trip to Warburg Reserve, Bix, three plants. SU721880 (CA)

81. Brassicaceae

Cardamine amara Large Bitter-cress
1 May 15. Dinton Pastures, one plant in muddy ditch. SU777727 (DM)
3 May 15. Moor Copse, along stream. SU63517414 and SU63387382 (SW, DM & RG)

Iberis amara Wild Candytuft
26 Jul 15. RDNHS trip to Aston Rowant NNR, Beacon Hill. SU727969 (IE)
19 Aug 15. RDNHS walk to Swyncombe Downs. SU670914 (SH)

Lepidium campestre Field Pepperwort
11 Jul 15. Footpath beside Holy Brook water meadow. SU69967107 (GT & RG)

82. Santalaceae

Thesium humifusum Bastard-toadflax
30 Jul 15. The Holies, Streatley. SU593798 (JH)

Viscum album Mistletoe
30 Nov 15. Leighton Park School ground along Pepper Lane. SU733714 (RG)

86. Polygonaceae

Persicaria mitis Tasteless Water-pepper
6 Aug 15. Cock Marsh. SU88368677 (DM)

Rumex maritimus Golden Dock
2 Aug 15. Fobney Island. SU70067113 (DM)
8 Sep 15. Padworth Lane Gravel Pits. SU608672 (KM)

88. Caryophyllaceae

Cerastium arvense Field Mouse-ear
3 Jun 15. Lough Down, Streatley, six flowers. SU588811 (JH)

Stellaria palustris Marsh Stitchwort
6 Aug 15. Cock Marsh. SU88368677 (DM)

99. Primulaceae

Anagallis tenella Bog Pimpernel
30 May 15. RDNHS trip to Ashford Hill NNR. SU564618 (SW)
15 Jul 15. RDNHS walk to Hazeley Heath. SU764580 (JC)
5 Sep 15. RDNHS trip to Burnham Beeches. SU954849 (JH)

105. Gentianaceae

Gentianella germanica Chiltern Gentian
11 Sep 15. The Holies, Streatley. SU593800 (JH)

107. Boraginaceae

Cynoglossum officinale Hound's-tongue
21 Oct 15. RDNHS walk to Gillot's Field, Henley. SU746812 (SR)

Lithospermum officinale Common Gromwell
19 Dec 15. RDNHS trip to Silchester, Roman Wall, SU63786273 and SU63806276 (TM)

109. Solanaceae

Atropa belladonna Deadly Nightshade
3 May 15. RDNHS walk to Hampstead Norreys. SU528760 (DG)

110. Oleaceae

Fraxinus angustifolia Narrow-leaved Ash
17 Jun 15. RDNHS walk to
Leckhampstead. 1st record for W. Berkshire?
SU438763 (RS)

113. Veronicaceae

Chaenorhinum minus Small Toadflax
18 Jul 15. RDNHS trip to Malshanger
Estate, few specimens. SU573539 (JC)

Kickxia elatine Sharp-leaved Fluellen
18 Jul 15. RDNHS trip to Malshanger
Estate. SU573539 (JC)
16 Oct 15 Tilehurst. SU654740 (JH)

Kickxia spuria Round-leaved Fluellen
18 Jul 15. RDNHS trip to Malshanger
Estate, more frequent than *K. elatine*.
SU573539 (JC)

Linaria repens Pale Toadflax
23 Aug 15. The Holies, Streatley.
SU593800 (JH)

118. Lamiaceae

Clinopodium acinos Basil Thyme
26 Jul 15. RDNHS trip to Aston Rowant
NNR, Beacon Hill. SU72719702 (IE)
30 Jul 15. The Holies, Streatley, 27
plants. SU593798 (JH)

Galeopsis bifida Bifid Hemp-nettle
2 Aug 15. Along footpath between Holy
Brook and Kennet. SU694716 (RG & DM)
3 Aug 15. Harris Garden, weed in
Perennial Border. SU737713 (RG)
7 Aug 15. Grey's Court (Nat. Trust), in
Bluebell wood, SU 727836 (RG)

Scutellaria minor Lesser Skullcap
5 Sep 15. RDNHS trip to Burnham
Beeches. SU954849 (JH)

Thymus pulegioides Large Thyme
30 May 15. RDNHS trip to Ashford Hill
NNR. SU562621 (SW)

121. Orobanchaceae

Latraea squamaria Toothwort
31 Mar 15. Whiteknights Campus, strong
colony under hazel. SU73737138 (DM)

Orobanche rapum-genistae Greater
Broomrape
30 May 15. RDNHS trip to Ashford Hill
NNR. SU562621 (SW)

Pedicularis palustris Marsh Lousewort
30 May 15. RDNHS trip to Ashford Hill
NNR. SU564618 (SW)

128. Asteraceae

Achillea ptarmica Sneezewort
2 Aug 15. Fobney Island. SU701711 (DM &
RG)
16 Sep 15. RDNHS walk to Moor Green
Lakes. SU816624 (JH)

Bidens cernua Nodding Bur-marigold
2 Aug 15. Fobney Island. SU701711 (DM
& RG)

Cirsium dissectum Meadow Thistle
15 Jul 15. RDNHS walk to Hazeley
Heath. SU764580 (JC)

Cirsium eriophorum Woolly Thistle
27 Nov 15. Watts Bank. SU33117709 (JL)

Crepis biennis Rough Hawk's-beard
1 Jul 15. Winnersh Triangle, Jacobs car
park. SU776716 (DM)

Inula conyza Ploughman's-spikenard
8 Sep 15. Padworth Lane Gravel Pits.
SU608672 (KM)

Lactuca virosa Great Lettuce
19 Dec 15. RDNHS trip to Silchester, at
the base of the Roman Wall, SU63676259,
SU64066207 and SU64316226 (TM)

132. Valerianaceae

Valeriana dioica Marsh Valerian
30 May 15. RDNHS trip to Ashford Hill
NNR. SU564618 (SW)

133. Dipsacaceae

Dipsacus pilosus Small Teasel
23 Apr 15. Wokingham, near Barkham
Road. SU68117966 (DM)
25 Oct 15. RDNHS trip to Ufton Nervet.
SU622672 (GS)
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, still having a few flower buds at
the end of December! SU63716214 and
SU63686216 (TM)

138. Apiaceae

Anethum graveolens Dill

31 Jul 15. Reading, Kings Road, growing in gravel. SU720733 (DM)

Anthriscus caucalis Bur Chervil
8 April 15. Beggar's Hill, Woodley, many seedlings. SU779743 (DM)

Apium graveolens Wild Celery
1 Jun 15. Whiteknights Campus. SU74167168 (DM)

Oenanthe lachenalii Parsley water-dropwort
Oct 15. Cothill Fen NNR. SU46049980 (DM)

Scandix pecten-veneris Shepherd's-needle
3 May 15. Haw Farm, Ashampstead. SU553770 (JW & RS)

Smyrniolum olusatrum Alexanders
3 May 15. Moor Copse. SU633738 (SW, DM & RG)

144. Butomaceae

Butomus umbellatus Flowering-rush
2 Aug 15. Fobney Island. SU70087112 (DM & RG)

145. Hydrocharitaceae

Elodea nuttallii Nuttall's Waterweed
11 Jul 15. Fobney Island, Reading. SU701711 (GT & RG)

148. Juncaginaceae

Triglochin palustris Marsh Arrowgrass
6 Aug 15. Cock Marsh. SU87848667 (DM)

150. Potamogetonaceae

Potamogeton nodosus Loddon Pondweed
1 Jul 15. Lower Earley, East side of Loddon Bridge and in many places up- and down-stream from there. SU767707 (DM)

Potamogeton pusillus Lesser Pondweed
11 Jul 15. Fobney Island, Reading. SU70287108 (GT & RG)

152. Nartheciaceae

Narthecium ossifragum Bog Asphodel
15 Jul 15. RDNHS walk to Hazeley Heath. SU764580 (JC)

154. Melianthiaceae

Paris quadrifolia Herb-Paris
26 Apr 15. RDNHS trip to Warburg Reserve, Bix, abundant. SU721880 (CA)

157. Liliaceae

Fritillaria meleagris Fritillary
27 Apr 15. Stanford End, abundant, but past their best. SU705631 (JH)

158. Orchidaceae

Anacamptis pyramidalis Pyramidal Orchid
15 Jun 15. Green Park, Reading. SU698699 (JH)
17 Jun 15. RDNHS walk to Hill Green. SU446767 (RS)
20 Jun 15. Hurley Chalk Pit BBOWT reserve, abundant. SU813821 (JH)
26 Jul 15. RDNHS trip to Aston Rowant NNR, Beacon Hill. SU727969 (IE)

Cephalanthera damasonium White Helleborine
31 Mar 15. Whiteknight's Campus, beneath a lime tree near the library. SU73417171 (DM)
29 May 15. The Holies, Streatley, eight flower spikes. SU586800 (JH)
5 Jun 15. The Holies, Streatley, one flower spike. SU586801 (JH)

Coeloglossum viride Frog Orchid
26 Jul 15. RDNHS trip to Aston Rowant NNR, Beacon Hill. SU726971 (IE)

Epipactis helleborine Broad-leaved Helleborine
15 Jul 15. RDNHS walk to Hazeley Heath. SU758578 (JC)
16 Dec 15. RDNHS walk to Kingwood Common. SU694831 (SH)

Epipactis leptochila Narrow-lipped Helleborine
13 Jul 15. Sulham Woods, some 60 plants in a small area of dense, mature beech. SU64947580 (RS)

Epipactis purpurata Violet Helleborine
26 Jul 15. RDNHS trip to Aston Rowant NNR, Beacon Hill. SU72749688 (IE)

Gymnadenia conopsea Chalk Fragrant-orchid
20 Jun 15. Hurley Chalk Pit BBOWT

reserve. SU813821 (JH)
26 Jul 15. RDNHS trip to Aston Rowant
NNR, Beacon Hill. SU725969 (IE)

Ophrys apifera Bee Orchid
20 Jun 15. Hurley Chalk Pit BBOWT
reserve. SU813821 (JH)
26 Jun 15. Basildon Park (Nat. Trust), two
flower spikes. SU605771 (JH)

Orchis mascula Early-purple Orchid
26 Apr 15. RDNHS trip to Warburg
Reserve, Bix, six flower heads. SU721880
(CA)
3 May 15. Moor Copse, many specimens.
SU63957385 (SW, DM & RG)

Orchis purpurea Lady Orchid
20 May 15. RDNHS walk to Hartslock
BBOWT reserve. SU616795 (CA)

Orchis x angusticruris Monkey x Lady
Orchid hybrid
20 May 15. RDNHS walk to Hartslock
BBOWT reserve. SU616795 (CA)

Spiranthes spiralis Autumn Lady's-tresses
27 Sep 15. RDNHS trip to Greenham
Common. Wide area in SU4964 and SU5064
(MK)

161. Amaryllidaceae

Allium triquetrum Three-cornered Garlic
19 Dec 15. RDNHS trip to Silchester,
Roman Amphitheatre, locally abundant in a
large area on the amphitheatre wall.
SU64466263 (TM)

Leucojum aestivum ssp. aestivum
Summer Snowflake
27 Mar 15. Whiteknights Campus.
SU73867153 (DM)
1 May 15. Sandford Mill, still proliferous.
SU777729 (DM)

168. Juncaceae

Luzula sylvatica Great Wood-rush
3 May 15. RDNHS trip to Hampstead
Norreys. SU528760 (DG)

169. Cyperaceae

Carex binervis Green-ribbed Sedge
5 Sep 15. RDNHS trip Burnham Beeches.
SU954849 (JH)

Carex disticha Brown Sedge

1 May 15. Dinton Pastures. SU777728
(DM)

Carex echinata Star Sedge
30 May 15. RDNHS trip to Ashford Hill
NNR. SU564618 (SW)

Carex pseudocyperus Cyperus Sedge
19 Dec 15. RDNHS trip to Silchester, edge
of pond near church. SU64376235 (TM)

Carex strigosa Thin-spiked Wood-sedge
31 May 15. Moor Copse, along ride.
SU634740 (DM)
19 Dec 15. RDNHS trip to Silchester,
Roman Wall, several clumps in damp sunken
area below the wall. Leaves 12 mm wide with
19 veins either side of midrib. SU63636216
(TM)

Carex vesicaria Bladder-sedge
30 May 15. RDNHS trip to Ashford Hill
NNR. SU558621 (SW)

Cyperus fiscus Brown Galingale
6 Aug 15. Cock Marsh. SU87848667
(DM)

Eleogiton fluitans Floating Club-rush
27 Sep 15. RDNHS trip to Greenham
Common. SU509642 (MK)

Scirpus sylvaticus Wood Club-rush
30 May 15. RDNHS trip to Ashford Hill
NNR. SU564618 (SW)

170. Poaceae

Alopecurus aequalis Orange Foxtail
28 Jun 15. Fobney Island. SU70087113
(DM)

Bromus secalinus Rye Brome
10 Jul 15. Fobney Island. SU70267113
(DM)

Hordelymus europaeus Wood Barley
26 Jul 15. RDNHS trip to Aston Rowant
NNR, Beacon Hill. SU728969 (IE)

Nassella tenuissima Argentine Needle-
grass
1 Jul 15. Winnersh Triangle car park.
SU776716 (DM)

Phalaris canariensis Canary-grass
12 Nov 15. Fobney, a few plants.
SU703710 (JL)

Poa angustifolia Narrow-leaved Meadow-
grass
19 Dec 15. RDNHS trip to Silchester,
Roman Wall. SU64266221 and SU64346232
(TM)

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RECORDER'S REPORT FOR LEPIDOPTERA

Norman Hall

2015 was another poor year for lepidoptera from my point of view. Generally, numbers of individuals trapped were low, numbers of species were low, and there were few captures of special interest. It was not that the weather was particularly bad; there were lots of warm and sunny days. However, there were few warm and sultry nights, and even if the days had been cloudy the skies often cleared at night and the temperatures plummeted.

When I am trapping away from home working with MV lamps run from a generator, I always stay overnight and often get some sleep before I have to top up my generator – at about 1AM. Normally, in summer at least, this is the most exciting time to be around the lights. I turn off my MV moth traps and replace them with MV lamps on tripods above the mothing sheets. Then I look at any moths on the sheet (which might fly away before dawn), go through the trap contents, and watch moths coming in from the surrounding vegetation. But, too often this year I have found nothing flying at all at 'top-up-time', and any moths seen then have been in exactly the same positions at dawn, being too cold to fly away. In such conditions I have found it more productive to run MV lights on tripods all night, even though unattended for most of the time, and not use traps at all (unless it's going to rain), in the expectation that moths are more likely to flutter to egg trays at ground level than to lift off and fly into traps.

However, with the wind predominantly from the south or south west for the whole year, including December which was exceptionally warm, all was not doom and gloom. Short blasts of hot tropical air arrived from time to time, with the most notable event being on July 1st when the temperature rose to over 30°C after a night when the temperature didn't drop below 18°C. Such blasts, however, were usually short-lived and difficult to 'catch'. If you planned to trap on a Friday because of a promising weather forecast the warm air would disappear on the Thursday, but warm air sometimes brought in a few migrants which could be caught 'after the event'. A misleading weather forecast was also responsible for my most memorable entomological experience of the year. Thunderstorms had been forecast for about 7PM, so at 10 PM I decided that they had missed my site and set out my traps - but at 'top-up time' I was trapped in my car in a spectacular electric storm with almost continuous lightning, thunder and hail for two hours – but at least the hailstones hadn't dented the car, and I did catch a few moths in surprisingly good condition hiding among the piles of sodden egg trays at dawn.

A systematic list of this year's records of selected species follows. They should all be from within our area, 'within 20 miles of Reading', approximately from Newbury and Snelsmore Common in the west to Maidenhead in the east, but I have included a few records from beyond 20 miles that are still in Vice-county 22 (Old Berkshire). Differences from previous reports are (1) The species are now listed in the order of the numbers assigned by Agassiz, D.J.L.; Beavan, S.D.; Heckford, R.J., (2013), though the now-outdated Bradley numbers are still given in round brackets. (2) 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, may be to a group, a specific trapper or to a group that includes the trapper. This is because I believe that all published records should include the name of the most experienced identifier present in case verification of the record is considered necessary, while still acknowledging the role of the person who actually trapped it. Sometimes this is *not* possible because many recorders pool the records for all trappers at an event and the information about who caught what (and how many) is lost and one can only acknowledge the role of the group as a whole. (3) I have previously included in my reports *all* recorded species that are not common according to Waring and Townsend (macros) or Tony Davis (micros). However, there are some species they classify as 'local', which I consider to be common, in the Reading area at least, and these have been excluded also. They comprise Dwarf Cream Wave, Treble Brown Spot, Maiden's Blush, Scorched Carpet, Scorched Wing, Black Arches, Rosy Footman, Buff Footman, Scarce Footman, Orange Footman, Sycamore, Coronet, Old Lady, Large Nutmeg, Light Brocade & Beautiful Hooktip.

As in my previous reports, for common butterflies I have given the date range for Red Cow cottage, because the site is very large and is surveyed regularly.

Where I refer to the number of records received for a species, this has nothing to do with the number of individuals seen. Different records are for different dates or significantly different localities.

HEPIALIDAE, Swift moths

03.003 *Korscheltellus fuscinebulosa*, Map-winged Swift (0018) Local

7/6/15, Aldermaston, Paices Wood SU58406357 [NMH(BBOWT)]

03.004 *Phymatopus hecta*, Gold Swift (0016) Local

Earliest: 29/6/15, 4, Maidenhead Thicket SU85308073 [LJF]

Latest: 14/7/15, 2f, Maidenhead Thicket SU85348075 [LJF]

ADELIDAE, Longhorn moths

07.002 *Nemophora metallica*, (0147) Nationally Scarce B

16/7/15, Streatley, The Holies SU594798 [JH]

07.014 *Nematopogon metaxella*, (0143) Local

7/6/15, Aldermaston, Paices Wood SU58386373 [NMH(BBOWT)]

PSYCHIDAE, Bagworm moths

11.006 *Taleporia tubulosa*, (0181) Local

16/6/15, Snelsmore Common SU46107112 [NMH]

TINEIDAE, Fungus moths

12.010 *Morophaga choragella*, (0196) Local
17/6/15, 29/6/15, & 11/7/15, Harcourt Drive, Earley SU73527096 [NMH]

12.021 *Nemapogon clematella*, (0220) Local

21/8/15, Harcourt Drive, Earley SU73527096 [NMH]

ROESLERSTAMMIIDAE, a family of micromoths including only 2 UK species.

13.002 *Roeslerstammia erxebella*, (0447) Local

20/8/15, 2, Bowdown Wood, Bomb site SU 50156571 [NMH(LLP)]

23/10/15, Harcourt Drive, Earley SU73527096 [NMH]

GRACILLARIIDAE, moths whose early instar larvae are flattened and feed in the surface layers of leaves

15.007 *Caloptilia azaleella*, Azalea Leaf Miner (0285) Local

11/5/15, Harcourt Drive, Earley SU73527096 [NMH]

PLUTELLIDAE

18.001 *Plutella xylostella*, Diamond-back Moth (0464) Migrant

Earliest: 4/6/15, Tilehurst [JH], [JL]

Latest: 4/11/15, Tilehurst [JH]

Surprisingly few this year (NMH)

ARGYRESTHIIDAE

20.005 *Argyresthia trifasciata*, (0409A) Local

11/5/15, 1 & 21/8/15, Harcourt Drive, Earley SU73527096 [NMH]

Feeds on Cypresses (NMH)

OECOPHORIDAE

28.008 *Metalampra italica*, (0642A) Migrant

20/8/15, 3, Bowdown Wood, Bomb site SU 50156571 [NMH(LLP)]

Now established in the UK and becoming quite common(NMH)

28.024 *Tachystola acroxantha*, (0656) Local

3/8/15, 1/12/15, 1 & 2/12/15, Harcourt Drive, Earley SU73527096 [NMH]

28.025 *Pleurota bicostella*, (0654) Local

25/6/15, 2, Broadmoor Bottom SU8562 [JL]

DEPRESSARIIDAE

32.002 *Semioscopis steinkellneriana*, (0667) Local

27/3/15, Maidenhead Thicket SU85248082 [LJF]; 14/4/15, Maidenhead, Woolley Firs SU85168006 [LJF]; 16/4/15, Baynes Wood SU51176515 [NMH(LLP)]; Latest: 22/4/15, 2, Maidenhead Thicket SU85318087 [LJF]

GELECHIIDAE

35.022 *Dichomeris marginella*, Juniper Webber (0862) Local

14/8/15, Harcourt Drive, Earley SU73527096 [NMH]

35.137 *Caryocolum tricolorella*, (0834) Local

14/11/15, Moor Copse SU638736 [JL]

35.157 *Recurvaria leucatella*, (0758) Local

18/7/15, Tilehurst, Westwood Road SU666742 [JH]

COLEOPHORIDAE, Micromoths whose larvae live in cases made from silk and vegetation.

37.009 *Coleophora milvipennis*, (0496) Local

16/6/15, Snelsmore Common SU46097074

[APR]

37.055 *Coleophora pyrrhulipennella*, (0541)

Local

16/6/15, 4, Snelsmore Common SU46097074

[APR]

37.103 *Coleophora follicularis*, (0555)

Local

9/8/15, Ashampstead Common SU586749 [JL]

37.106 *Coleophora paripennella*, (0560)

Local

16/6/15, Snelsmore Common SU46237118

[APR]

PTEROPHORIDAE Plume moths

**45.023 *Marasmarcha lunaedactyla*,
Crescent Plume (1495) Local**

1/7/15, Thatcham Reedbeds SU50206675

[NMH(LLP)]

**TORTRICIDAE, including moths
resembling bird-droppings for camouflage**

**49.014 *Archips crataegana*, Brown Oak
Tortrix (0979) Local**

25/6/15, Waltham Place SU85707706 [LJF]

**49.018 *Choristoneura hebenstreitella*,
(0983) Local**

4/6/15, Waltham Place SU85707706 [LJF];

16/6/15, Snelsmore Common SU46037071

[APR]

49.087 *Acleris literana*, (1061) Local

15/4/15, Harcourt Drive, Earley SU73527096

[NMH]

49.134 *Cochylis roseana*, (0962) Local

18/7/15, Windsor, Centrica complex

SU94657731 [LJF]

49.167 *Celypha rivulana*, (1068) Local

4/6/15, Tilehurst SU665742 [JL]

**49.200 *Enarmonia formosana*, Cherry-bark
Moth (1216) Local**

18/7/15, Tilehurst, Westwood Road SU666742

[JH]

49.202 *Ancylis uncella*, (1118) Local

11/6/15, Broadmoor Bottom SU855629 [JL];

16/6/15, Snelsmore Common SU46097074

[APR]

49.203 *Ancylis laetana*, (1123) Local

16/6/15, Snelsmore Common SU46107112

[NMH]

**49.206 *Ancylis upupana*, (1121) Nationally
Scarce B**

16/6/15, Snelsmore Common SU46097074

[APR]

49.243 *Epinotia demarniana*, (1135) Local

16/6/15, Snelsmore Common SU46037071

[APR]

**49.312 *Dichrorampha consortana*, (1280)
Nationally Scarce A**

8/6/15, Aldermaston, Paices Wood SU583638

[JL]

Requires confirmation (NMH). Specimen
available (JL)

49.363 *Pammene argyrana*, (1228) Local

15/4/15, Harcourt Drive, Earley SU73527096

[NMH]

SESIIDAE, Clearwing moths

**52.014 *Bembecia ichneumoniformis*, Six-
belted Clearwing (0382) Notable B**

16/7/15, Greenham Common, Estovers

SU499652 [PBL(LLP)] Trap set amongst

foodplant. Insect may just have hopped onto

the sheet. (PBL)

LIMACODIDAE, compising 2 'honorary' macromaths

**53.001 *Apoda limacodes*, The Festoon
(0173) Notable B**

Earliest: 16/6/15, Snelsmore Common

SU46037071 [APR]

Latest: 18/7/15, Tilehurst, Westwood Road

SU666742 [JH]

Also recorded from Red Cow, max 3 on

16/7/15 [AR]

ZYGAENIDAE, Burnets and their relatives.

**54.002 *Adscita stacies*, The Forester
(0163) Local**

6/6/15, 3 & 16/6/15, 18, Knowl Hill Common

SU824794 [LJF]

HESPERIIDAE, Skipper butterflies

57.001 *Erynnis tages*, Dingy Skipper (1532)

Earliest: 25/4/15, 2, Lardon Chase SU588809

[JH]

Latest: 4/6/15, 8, Lambourne, Crog Hill

SU322838 [ABO]

**57.002 *Pyrgus malvae*, Grizzled Skipper
(1534)**

Earliest: 12/5/15, Woolhampton, Shalford

Bridge Gravel Pit SU571655 [ABO]

Latest: 21/5/15, 19, Ufton Nerve restored

gravel pit SU638667 [ABO]

**57.005 *Thymelicus lineola*, Essex Skipper
(1527)**

Earliest: 30/6/15, Mortimer West End, Simms

Copse SU645636 [JH]

Latest: 27/8/15, Padworth Village Hall field

SU609678 [JH]

Red Cow SU592868 from 3/7/15 to 22/7/15

(AR)

**57.006 *Thymelicus sylvestris*, Small
Skipper (1526)**

Earliest: 23/6/15, Beech Hill, Elm Tree Inn SU695641 [JH]

Latest: 16/8/15, Red Cow SU592868 [AR]

Red Cow SU592868 from 29/6/15 to 16/8/15 [AR]

57.008 *Hesperia comma*, Silver-spotted Skipper (1529)

19/8/15, 6, Swyncombe Downs SU673913 [JH(RDNHS)]

57.009 *Ochlodes sylvanus*, Large Skipper (1531)

Earliest: 30/5/15, 3, Moor Copse SU640736 [JL]

Latest: 29/7/15, Basildon Park, SW SU605773 [JH]

Red Cow SU592868 from 4/6/15 to 21/7/15 [AR]

PIERIDAE, 'White' butterflies

58.003 *Anthocharis cardamines*, Orange-tip (1553)

Earliest: 9/4/15, Stratfield Mortimer, footpath SW of church SU667638 [JH]

Latest: 17/6/15, Leckhamstead, Hillgreen, wildflower meadow SU447768 [JH(RDNHS)]

Red Cow SU592868 from 15/4/15 to 3/6/15 [AR]

58.006 *Pieris brassicae*, Large White (1549)

Earliest: 16/4/15, Aldermaston SU5865 [JL]

Latest: 10/9/15, Beech Hill, Elm Tree Inn SU695641 [JH]

58.007 *Pieris rapae*, Small White (1550)

Earliest: 24/4/15, Padworth Common SU6164 [JL]

Latest: 12/10/15, Burghfield, Eatt of St Mary's Church SU673683 [JH]

High count: 19/7/15, 15, Frilsham SU543733 [JL]

58.008 *Pieris napi*, Green-veined White (1551)

Earliest: 8/4/15, Fobney SU7070 [JL]

Latest: 7/9/15, Padworth Common SU6461 [JL]

High count: 10/7/15, 8, Twyford, Loddon Reserve SU7875 [JL]

58.013 *Gonepteryx rhamni*, The Brimstone (1546)

Earliest: 27/2/15, Decoy Heath SU610634 [JL]

Latest: 20/10/15, Red Cow SU592868 [AR]

Red Cow SU592868 from 6/3/15 to 20/10/15 [AR]

High count: 13/5/15, 29, Aston Upthorpe Downs SU545837 [JH]

NYMPHALIDAE, 'Brown' butterflies

59.003 *Pararge aegeria*, Speckled Wood

(1614)

Earliest: 8/4/15, Padworth Church SU613661 [JH]

Latest: 12/10/15, Burghfield, St Mary's Churchyard SU671684 [JH]

Red Cow SU592868 from 15/4/15 to 6/9/15 [AR]

High count: 10/9/15, 12, Mortimer, Hundred Acre Piece SU639651 [JH]

59.005 *Coenonympha pamphilus*, Small Heath (1627)

Earliest: 6/5/15, 2, Streatley, The Holies SU5979 [JL]

Latest: 2/10/15, Streatley, The Holies SU594798 [JH]

Red Cow SU592868, 1 on 8/6/15

High count: 1/7/15, 11, Aston Upthorpe Downs, Juniper Valley SU544832 [JH]

59.009 *Aphantopus hyperantus*, The Ringlet (1629)

Earliest: 21/6/15, Streatley, The Holies SU588802 [JH]

Latest: 9/8/15, 2, Ashampstead Common SU5874 [JL]

Red Cow SU592868 from 29/6/15 to 31/7/15

High count: 7/7/15, 77, Mortimer, Hundred Acre Piece SU639651 [JH]

59.010 *Maniola jurtina*, Meadow Brown (1626)

Earliest: 3/6/15, Streatley, The Holies SU588802 [JH]

Latest: 2/10/15, 28, Streatley, The Holies SU594798 [JH]

Red Cow SU592868, from 8/6/15 to 25/9/15 [AR]

High count: 22/7/15, 86, Tyle Mill, Kennet & Avon canal SU626691 [JH]

59.011 *Pyronia tithonus*, The Gatekeeper (1625)

Earliest: 2/7/15, 2, Fobney SU7070 [JL]

Latest: 2/9/15, Red Cow SU592868 [AR]

Red Cow SU592868, from 3/7/15 to 2/9/15 [AR]

High count: 22/7/15, 71, Mortimer, Hundred Acre Piece SU639651 [JH]

59.012 *Melanargia galathea*, Marbled White (1620)

Earliest: 15/6/15, Red Cow SU592868 [AR] Red Cow: From 15/6/15 to 2/8/15

Latest: 2/8/15, Red Cow SU592868 [AR]

High count: 17/6/15, 16, Leckhamstead, Hillgreen, wildflower meadow SU447768 [JH]

59.013 *Hipparchia semele*, The Grayling (1621)

Earliest: 9/7/15, Decoy Heath SU610634 [JL]

Latest: 7/9/15, Padworth Common SU644619 [JL]

Also seen at Aldermaston, Paices Wood [JL] and in Mortimer [JH]

59.017 *Argynnis paphia*, Silver-washed Fritillary (1608)

Earliest: 29/6/15, Mortimer, Starvale Woods SU655656 [JH]

Latest: 9/8/15, Ashampstead Common SU5874 [JL]

High count: 4/7/15, 11, Moor Copse SU634740 [JL]

59.019 *Argynnis aglaja*, Dark Green Fritillary (1607)

1/7/15, 2, Aston Upthorpe Downs SU546837 [JH]

59.022 *Apatura iris*, Purple Emperor (1585)

17/7/15, Brimpton SU554654 [ABO]

59.023 *Vanessa atalanta*, Red Admiral (1590)

Earliest: 10/3/15, Red Cow SU592868 [AR]

Latest: 19/12/15, Axmansford SU565607 [ABO]; 23/12/15, Red Cow SU592868 [AR]

No record of more than 2 from anywhere.

59.024 *Vanessa cardui*, Painted Lady (1591)

Earliest: 5/6/15, 3, Streatley, The Holies SU594798 [JH]

Latest: 9/9/15, Green Park NW, Reading SU698699 [JH]

Red Cow SU592868 from 21/7/15 to 7/9/15 [AR]

59.026 *Aglais io*, The Peacock (1597)

Earliest: 5/3/15, Red Cow SU592868 [AR]

Latest: 1/12/15, Tilehurst SU6642 [JL]

Red Cow SU592868, from 5/3/15 to 12/8/15 [AR]

High count: 6/4/15, 6, St Michael's churchyard, Tilehurst SU673729 [JH]

59.027 *Aglais urticae*, Small Tortoiseshell (1593)

Earliest: 18/2/15, Red Cow SU592868 [AR]

Latest: 2/12/15, Red Cow SU592868 [AR]

High count: 6/4/15, 14, St Michael's churchyard, Tilehurst SU673729 [JH]

59.031 *Polygonia c-album*, The Comma (1598)

Earliest: 6/3/15, Red Cow SU592868 [AR]

Latest: 20/10/15, Red Cow SU592868 [AR]

Red Cow SU592868, from 6/3/15 to 20/10/15

High count: 10/7/15, 7, Ufton Court woods SU623667 [JH]

RIODINIDAE, Duke of Burgundy

60.001 *Hamearis lucina*, Duke of Burgundy Fritillary (1582)

21/5/15, 5, Lambourne, Crog Hill SU3283 [JL];

4/6/15, 7, Lambourne, Crog Hill SU322838 [ABO]

LYCAENIDAE, 'Blue' butterflies

61.001 *Lycaena phlaeas*, Small Copper

(1561)

Earliest: 22/4/15, Red Cow SU592868 [AR]

Latest: 20/10/15, Shinfield Cemetery, Spencers Wood SU719668 [JH]

Red Cow SU592868 from 22/4/15 to 1/10/15 [AR]

61.004 *Favonius quercus*, Purple Hairstreak (1557)

11/7/15, Aldermaston, Paices Wood SU584636 [JL];

22/8/15, Hampstead Norreys SU5375 [JL]

61.005 *Callophrys rubi*, Green Hairstreak (1555)

Earliest: 14/4/15, Aldermaston, Paices Wood SU583636 [JL]

Latest: 30/5/15, Ashford Hill SU565617 [JH(RDNHS)]

Red Cow SU592868, one only, 7/5/15 [AR]

High count: 13/5/15, 10, Aston Upthorpe Downs, Juniper Valley SU544832 [JH]

61.010 *Cupido minimus*, Small Blue (1569)

Earliest: 13/5/15, 2, Lardon Chase, Streatley SU588809 [JH]

Latest: 2/8/15, Fognam Chalk Pit SU2979 [JL]

High count: 17/6/15, 15, Peasemore, Eastley meadow SU446777 [JH(RDNHS)]

Also seen at Lambourne, Crog Hill [JL], [ABO]

61.012 *Celastrina argiolus*, Holly Blue (1580)

Earliest: 8/4/15, Red Cow SU592868 [AR]

Latest: 14/9/15, Swallowfield Churchyard SU731649 [JH]

Red Cow SU592868 from 8/4/15 to 7/9/15 [AR]

High count: 28/7/15, 3, Burghfield Common, Pondhouse Farm SU661678 [JH]

61.014 *Plebejus argus*, Silver-studded Blue (1571)

Earliest: 23 & 29/6/15, singles, Broadmoor Bottom SU85676292 [JL]

Latest: 17/7/15, Broadmoor Bottom SU8562 [JL]

9/7/15, Wildmoor Heath SU844632 [JL]

61.015 *Aricia agestis*, Brown Argus (1572)

Earliest: 11/5/15, 8, Ufton Nervet, restored gravel pit SU638666 [JH]

Latest: 25/9/15, Red Cow SU592868 [AR]

Red Cow SU592868 from 19/5/15 to 25/9/15

61.018 *Polyommatus icarus*, Common Blue (1574)

Earliest: 6/5/15, 2, Streatley, The Holies SU5979 [JL]

Latest: 25/9/15, Red Cow SU592868 [AR]

Red Cow SU592868 from 18/5/15 to 25/9/15 [AR]

High count: 4/6/15, 25, Lambourne, Crog Hill SU322838 [ABO]

61.019 *Polyommatus bellargus*, Adonis

Blue (1576)

Earliest: 5/6/15, 4, Streatley, The Holies SU594798 [JH]

Latest: 21/8/15, 4, Lardon Chase, Streatley SU588809 [JH]

61.020 *Polyommatus coridon*, Chalk Hill Blue (1575)

Earliest: 16/7/15, 54, Lardon Chase, Streatley SU588809 [JH]

Latest: 25/9/15, Lardon Chase, Streatley SU588809 [JH]

Red Cow SU592868, only 1, a male on 12/8/15 [AR]

28/8/15, 2, Watts Bank SU331771 [JL]

PYRALIDAE A large family sometimes considered as neither macros nor micros. It contains many pest species of economic importance.

62.007 *Cryptoblabes bistriga*, (1433) Local

Earliest: 13/5/15, Harcourt Drive, Earley SU73527096 [NMH]

Latest: 22/8/15, 6, Harcourt Drive, Earley SU73527096 [NMH]

Also seen at Snelsmore Common & Bowdown Wood [NMH]

62.021 *Oncocera semirubella*, (1441) Nationally Scarce B

Earliest: 16/7/15, 2, Streatley, The Holies SU594798 [JH]

Latest: 20/8/15, 2, Bowdown Wood, Bomb site SU 50156571 [NMH(LLP)]

Also seen at The Holies [JH], and Woolley Firs [LJF]

62.022 *Pempelia genistella*, (1443) Nationally Scarce B

15/8/15, 3, Snelsmore Common SU46047114 [NMH(RDNHS)]

New for Snelsmore, where it may have been previously overlooked as *palumbella* is much commoner (NMH).

62.023 *Pempelia palumbella*, (1442) Local

Earliest: 16/6/15, Snelsmore Common SU46037071 [APR]

Latest: 25/6/15, Broadmoor Bottom SU8562 [JL]

62.065 *Ephestia unicolorella*, (1474) Local

17-30/6/15, Harcourt Drive, Earley SU73527096. 17 examples seen in all. [NMH]

This species used to be called *Ephestia parasitella* ssp. *unicolorella*, but *parasitella* is a separate species not occurring in the UK. As it is a detritus feeder and is now much commoner than it used to be, others should be seeing it in their gardens (NMH)

62.070 *Synaphe punctalis*, (1414) Local

11/7/15, Tilehurst, Westwood Road SU666742

[JH]

CRAMBIDAE

A family previously considered as part of the Pyralidae.

63.014 *Sitochroa palealis*, (1370) Local

10/7/15, Waltham Place SU85707706 [LJF]

63.016 *Anania fuscalis*, (1386) Local

Earliest: 21/5/15, 4, Lambourn, Crog Hill SU322833 [JL]

Latest: 17/6/15, Leckhamstead, Hillgreen, Mud Lane crossroads SU452767 [JH(RDNHS)]

A very yellow female was found at Snelsmore Common on 16/6/15 (det gen. NMH)

63.028 *Ostrinia nubilalis*, European Corn-borer (1375) Local

1/7/15, Thatcham Reedbeds SU50206675 [NMH(RST)]; 18/7/15, Windsor, Centrica complex SU94657731 [LJF]

63.031 *Udea ferrugalis*, Rusty-dot Pearl (1395) Migrant

Earliest: 11/7/15, Tilehurst, Westwood Road SU666742 [JH]

Latest: 19/11/15, Maidenhead, Hemsdale SU869822 [LJF]

Only 6 records of single specimens in all (NMH)

63.052 *Nomophila noctuella*, Rush Veneer (1398) Migrant

Earliest: 15/7/15, Touchen-end SU88157620 [IES]

Latest: 4/11/15, Harcourt Drive, Earley SU73527096 [NMH]

Only 10 records (of single specimens) in all (NMH)

63.063 *Scoparia basistrigalis*, (1334A) Local

25/6, 30/6 & 19/7/2015, Harcourt Drive, Earley SU73527096 [NMH]

63.075 *Eudonia pallida*, (1336) Local

16/6/15, 2, Snelsmore Common SU46107112 [NMH]; 25/6/15, Harcourt Drive, Earley SU73527096 [NMH]; 1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(RST)]; 11/7/15, Tilehurst, Westwood Road SU666742 [JH]; 4/10/15, Snelsmore Common SU46027099 [NMH+RDO]

63.077 *Chilo phragmitella*, (1290) Local

1/7/15, Thatcham Reedbeds SU50206675 [NMH(LLP)]

1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(RST)]; 11/7/15, Tilehurst, Westwood Road SU666742 [JH]; 4/10/15, Snelsmore Common SU46027099 [NMH+RDO]

63.079 *Calamotropha paludella*, (1292) Local

1/7/15, 5, Thatcham Reedbeds SU50206675 [NMH(LLP)]

63.092 *Agriphila selasella*, (1303) Local

15/8/15, Aldermaston, Paices Wood SU585639 [JL]; 17/8/15, Sheepdrove Farm SU358819 [JL]; 22/8/15, Harcourt Drive,

1/7/15, 5, Thatcham Reedbeds SU50206675 [NMH(LLP)]

63.092 *Agriphila selasella*, (1303) Local

15/8/15, Aldermaston, Paices Wood SU585639 [JL]; 17/8/15, Sheepdrove Farm SU358819 [JL]; 22/8/15, Harcourt Drive,

1/7/15, 5, Thatcham Reedbeds SU50206675 [NMH(LLP)]

Earley SU73527096 [NMH]

63.118 *Nymphula nitidulata*, Beautiful China-mark (1350) Local

15/8/15, Snelsmore Common SU46047114 [NMH(RDNHS)]

63.121 *Donacaula forficella*, (1329) Local

Earliest: 1/7/15, 3, Thatcham Reedbeds SU50206675 [NMH(LLP)]

Latest: 6/8/15, 2, Thatcham Reedbeds SU50206675 [NMH(LLP)]

63.122 *Donacaula mucronella*, (1330) Nationally Scarce B

1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(RST)]

DREPANIDAE, Hook-tips

65.003 *Watsonalla cultraria*, Barred Hook-tip (1647) Local

15/4/15, Windsor South Forest SU93877127 [IES]

65.008 *Thyatira batis*, Peach Blossom (1652) Common

3/5/15, Snelsmore Common SU46237118 [PBL]

An exceptionally early seasonal record (PBL)

65.011 *Tethea or*, Poplar Lutestring (1655) Local

16/6/15, Snelsmore Common SU462710 [PBL]

65.014 *Cymatophorima diluta*, Oak Lutestring (1658) Local

7/9/15, Snelsmore Common SU46127162 [PBL]

65.015 *Polyploca ridens*, Frosted Green (1660) Local

Earliest: 7/4/15, Snelsmore Common SU45917064 [LJF]

Latest: 7/5/15, Thatcham Reedbeds SU50206675 [NMH(LLP)]

High count: 47 at Baynes Wood SU51176515, 16/4/15 [NMH(LLP)]

A good year for the species (NMH)

LASIOCAMPIDAE, Eggar moths

66.001 *Poecilocampa populi*, December Moth (1631) Common

High count: 44 at Snelsmore Common SU46177113 on 26/11/15 [PBL]

SPHINGIDAE, Hawk-moths

69.007 *Sphinx pinastri*, Pine Hawk-moth (1978) Local

Earliest: 2/6/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 22/8/15, Wildmoor Heath SU844632 [PBL] 12/6/15, Maidenhead, Woolley Firs.

More than 20 records in all (NMH)

69.008 *Hemaris tityus*, Narrow-bordered Bee Hawk-moth (1982) Notable B

30/5/15, Ashford Hill, ant-hill pasture SU563622 [PBL(RDNHS)]

A day-flying moth very difficult to see and not easy to identify. It was spotted by Sheelagh Hill, netted by PBL and released after being photographed (NMH).

69.010 *Macroglossum stellatarum*, Humming-bird Hawk-moth (1984) Immigrant

Earliest: 30/5/15, Ashford Hill Meadows SU5662 [PBL]

Latest: 20/9/15, Maidenhead, Hemsdale SU869822 [LJF]

13 records in all. A good year for it (NMH)

69.015 *Hyles livornica*, Striped Hawk-moth (1990) Immigrant

Earliest: 9/6/15, Earley Court Drive SU745734 [Alice Ayers]

Photographed on garden wall (NMH)

69.016 *Deilephila elpenor*, Elephant Hawk-moth (1991) Common

High count: 30/6/15, 18, Tilehurst, Westwood Road SU666742 [JH]

69.017 *Deilephila porcellus*, Small Elephant Hawk-moth (1992) Local

Earliest: 28/5/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 15/7/15, Red Cow SU592868 [AR]

5 at Red Cow SU592868 on 12/6/15, [AR]

GEOMETRIDAE, One of the two most populous families of macromoths.

Their caterpillars are loopers.

70.004 *Idaea rusticata*, Least Carpet (1699) Common

Earliest: 20/6/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 25/9/15, Maidenhead, Hemsdale SU869822 [LJF]

Unusually common this year: over 80 records in all, several with numbers in double figures. (NMH)

70.015 *Idaea emarginata*, Small Scallop (1712) Local

Earliest: 1/7/15, Thatcham Reedbeds SU50206675 [NMH(RDO)]

Latest: 7/8/15, Beenham, Wolf Trust SU58976936 [PBL]

Also seen at Red Cow on 5 dates [AR], Padworth Common [JL], Windsor, Centrica complex [LJF],

Decoy Heath [JL], Winterbourne-Bagnor Road [PBL] & Thatcham Reedbeds [NMH(LLP)]

70.018 *Idaea straminata*, Plain Wave (1715) Local

12/7/15, 7, Snelsmore Common SU4671 [PBL & LJF]

70.025 *Scopula immutata*, Lesser Cream Wave (1692) Local

1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 16/7/15, Greenham Common, Estovers SU499652 [PBL(LLP)]

70.027 *Scopula floslactata*, Cream Wave (1693) Local

Earliest: 21/5/15, Maidenhead, Woolley Firs SU85277983 [LJF]

Latest: 7/6/15, Aldermaston, Paices Wood SU58406357 [NMH(BBOWT)]

Also seen at Bowdown Wood, Bomb site [PBL(LLP)] & Maidenhead Thicket [LJF]

70.032 *Cyclophora albipunctata*, Birch Mocha (1677) Local

Earliest: 3/5/15, Snelsmore Common SU462710 [LJF]

Latest: 15/8/15, 5, Snelsmore Common SU46027099 [NMH(RDNHS)]

The only record not at Snelsmore was 7/6/15, Aldermaston, Paices Wood SU58406372 [NMH(BBOWT)]

70.035 *Cyclophora porata*, False Mocha (1679) Notable B

25/6/15, Broadmoor Bottom SU855629 [JL]

70.037 *Cyclophora linearia*, Clay Triple-lines (1681) Local

Earliest: 13/6/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 28/8/15, Windsor Forest, Bomber Ride SU93797134 [LJF]

Also recorded from Maidenhead, Hemsdale [LJF], Withymead SU600828 [PBL(RDO)], Red Cow [AR] and Windsor Forest [LJF]

70.038 *Rhometra sacraria*, The Vestal (1716) Immigrant

3/9/15 & 18/12/15, Maidenhead, Hemsdale SU869822 [LJF]

70.043 *Scotopteryx bipunctaria*, Chalk Carpet (1731) Notable B

2/8/15, 50, Crowhole Bottom SU3584 [JL]

50 is an exceptional number for this British Action Plan species (NMH)

70.050 *Xanthorhoe biriviata*, Balsam Carpet (1721) Uncommon

3/7/15, Withymead SU600828 [PBL]

70.053 *Xanthorhoe designata*, Flame Carpet (1722) Common

9/9/15, Snelsmore Common SU462710 [PBL]

This is a week after they're supposed to stop flying (PBL)

70.055 *Xanthorhoe quadrfasiata*, Large Twin-spot Carpet (1726) Local

Earliest: 1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(RDO)]

Latest: 9/8/15, Red Cow SU592868 [AR]

Also seen at Withymead [PBL], Waltham Place

[LJF], Snelsmore Common [LJF], Maidenhead Thicket [LJF]. & Beenham, Wolf Trust [PBL]

70.056 *Catarhoe cuculata*, Royal Mantle (1736) Local

12/7/15, Red Cow SU592868 [AR]

70.065 *Euphyia unangulata*, Sharp-angled Carpet (1794) Local

Early date: 21/5/15, Bowdown Wood, Bomb site SU 50156571 [PBL(LLP)]

13/6/15, Moor Green Lakes SU805623 [PBL];

10/8/15, Windsor Forest, Bomber Ride SU93827132 [LJF]

70.083 *Thera cupressata*, Cypress Carpet (1771A) Uncommon

11 & 17/6/15, Harcourt Drive, Earley SU73527096 [NMH];

25/6/15, Maidenhead, Hemsdale SU869822 [LJF];

27/6 & 17/7/15, Harcourt Drive, Earley SU73527096 [NMH];

18/11, 7 & 11/12/15, Maidenhead, Hemsdale SU869822 [LJF]

70.084 *Plemyria rubiginata*, Blue-bordered Carpet (1766) Local

Earliest: 26/6/15, Dinton SU7871 [PBL]

Latest: 1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(LLP)]

Also seen at Maidenhead Thicket [LJF], Red Cow [AR] & Maidenhead [LJF]

70.107-109 *Epirrita spp.*, November Moth agg (1795x) Common

High count: 62 at Dinton SU7871 on 23/10/15 [PBL]

70.112 *Euchoeca nebulata*, Dingy Shell (1874) Local

26/6/15, Dinton SU7871 [PBL(J.Cole)];

20/8/15, Bowdown Wood, Bomb site SU 50156571 [NMH(LLP)]

70.117 *Minoa murinata*, Drab Looper (1878) Notable B

Earliest: 4/5/15, Aldermaston, Paices Wood SU584638 [JL]

Latest: 15/8/15, Aldermaston, Paices Wood SU584638 [JL]

Also seen at Rushall Farm [JL], Bradfield [JL] & Moor Copse [JL]

70.118 *Philereme vetulata*, Brown Scallop (1791) Local

Earliest: 29/6/15, Maidenhead Thicket SU85308073 [LJF]

Latest: 14/7/15, Maidenhead Thicket SU85348075 [LJF]

Also seen at Waltham Place & Maidenhead, Hemsdale [LJF]

70.119 *Philereme transversata*, Dark Umber (1792) Local

14 & 18/7/15, Maidenhead, Hemsdale SU869822 [LJF];

18/7/15, 3, Windsor, Centrica complex SU94657731 [LJF]

70.121 *Hydria undulata*, Scallop Shell (1789) Local

Earliest: 12/6/15, Snelsmore Common SU462710 [PBL]

Latest: 22/8/15, Wildmoor Heath SU844632 [PBL]

70.134 *Perizoma bifaciata*, Barred Rivulet (1804) Local

17/8/15, Maidenhead, Hemsdale SU869822 [LJF]

70.137 *Perizoma albulata*, Grass Rivulet (1807) Local

Earliest: 21/5/15, Lambourn, Crog Hill SU322833 [JL]

Latest: 6/6/15, 3, Bockhampton Down SU352818 [JL]

also seen at Red Cow [AR], Grovepit Green [PBL] &

Watts bank SU331771 [JL]

70.141 *Gymnoscelis rufasciata*, Double-striped Pug (1862) Common

Late record: 27/12/15, 2, Snelsmore Common SU46237118 [PBL]

70.146 *Eupithecia haworthiata*, Haworth's Pug (1813) Local

9/7/15, Maidenhead, Hemsdale SU869822 [LJF]; 16/7/15, Greenham Common, Estovers SU499652 [PBL(LLP)]

70.159 *Eupithecia phoeniceata*, Cypress Pug (1855) Uncommon

Earliest: 12/8/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 6/10/15, Harcourt Drive, Earley SU73527096 [NMH]

13/8/15, Maiden Erlegh SU74897091 [PBL(BMG)].

12 records in all (NMH)

70.160 *Eupithecia tripunctaria*, White-spotted Pug (1835) Local

Earliest: 21/5/15, Red Cow SU592868 [AR]

Latest: 9/8/15, Leckhampstead, Hillgreen SU452767 [PBL]

Fairly common in Berks (NMH)

70.166 *Eupithecia simpliciata*, Plain Pug (1842) Local

3, 9 & 22/8/15, Maidenhead, Hemsdale SU869822 [LJF]

70.179syn *Eupithecia goossensiata*, [Ling Pug] (1830= form) Local

1 & 15/8/15, Snelsmore Common SU462710 [PBL], [NMH(RDNHS)]; 22/8/15, Wildmoor Heath SU844632 [PBL]

70.198 *Lobophora halterata*, The Seraphim (1879) Local

Earliest: 12, 13 & 15/5/15, Snelsmore Common SU462710 [PBL], [LJF]

Latest: 22/5/15, Maidenhead, Hemsdale SU869822 [LJF]

70.199 *Pterapherapteryx sexalata*, Small Seraphim (1882) Local

Seen at Snelsmore Common, Paices Wood,

Thatcham Reedbeds

Greenham Common & Windsor, Centrica complex.

Fairly common in Berks (NMH)

70.200 *Acasis viretata*, Yellow-barred Brindle (1883) Local

Earliest: 11/5/15, Harcourt Drive, Earley SU73527096 [NMH]

Latest: 28/8/15, St Paul's Churchyard SU805689 [PBL]

70.203 *Archiearis parthenias*, Orange Underwing (1661) Local

20/3/15, 3, Padworth Common, east section SU622647 [JH]

70.205 *Abraxas grossulariata*, The Magpie (1884) Common

Late date: 12/9/15, Leckhampstead Thicket SU43847732 [PBL(LJF)]

70.211 *Macaria notata*, Peacock Moth (1889) Local

Earliest: 13/5/15, Snelsmore Common SU462710 [LJF]

Latest: 30/8/15, Maidenhead, Hemsdale SU869822 [LJF]

High counts: 22 at Aldermaston, Paices Wood SU58406386 on 7/6/15 [NMH(BBOWT)]; 24 at Bowdown Wood, Bomb site SU 50156571 on 20/8/15 [NMH(LLP)]

70.212 *Macaria alternata*, Sharp-angled Peacock (1890) Local

Earliest: 6/8/15, Thatcham Reedbeds SU50206675 [NMH(LLP)]

Latest: 20/8/15, Bowdown Wood, Bomb site SU 50156571 [NMH(LLP)]

70.222 *Petrophora chlorosata*, Brown Silver-line (1902) Common

Autumn record: 6/10/15, Woolton Hill Chase SU44156304 [NMH(J.Parsons)]

Photograph submitted. This species should not produce a second generation (NMH)

70.231 *Apeira syringaria*, Lilac Beauty (1910) Local

29/6/15, Harcourt Drive, Earley SU73527096 [NMH]

70.233 *Ennomos quercinaria*, August Thorn (1912) Local

Earliest: 12/7/15, Red Cow SU592868 [AR]

Latest: 23/8/15, Maidenhead, Hemsdale SU869822 [LJF]

70.246 *Apocheima hispidaria*, Small Brindled Beauty (1925) Local

Earliest: 1/3/15, Snelsmore Common SU462710 [LJF]

Latest: 15/3/15, Snelsmore Common SU462710 [PBL]

70.271 *Ectropis sp.*, Small Engrailed (1948) Uncertain

11/5/15, Snelsmore Common SU46177106 [PBL]

It is generally believed that we have two species of *Ectropis* - Engrailed and Small Engrailed, where Engrailed is double-brooded and Small Engrailed is single-brooded, but otherwise there seems to be no sure way to separate them. PBL considers his record to be of Small Engrailed on the basis of criteria adopted by Brian Baker (i.e it appeared between the two generations of the Engrailed). The Agassiz, Beavan and Checklist (2013) has gone with the opinion that Small Engrailed is a separate species – but gives its scientific name as *Ectropis sp.* In earlier lists (and presumably in the original description) it is called *Ectropis crepuscularia*, but this name is now considered to be the correct name for the Engrailed - so Small Engrailed has ended up with no valid scientific name (NMH)

70.273 *Parectropis similaria*, Brindled White-spot (1950) Local

Earliest: 22/5/15, Maidenhead Thicket SU85348075 [LJF]

Latest: 12/7/15, Snelsmore Common SU462710 [PBL]

Also seen at Paices Wood [NMH(BBOWT)]

70.282 *Theria primaria*, Early Moth (1960) Common

Flying in light snow: 2/2/15, Winterbourne-Bagnor Road SU4571 [PBL].

70.295 *Perconia strigillaria*, Grass Wave (1970) Local

11/6/15, 12, Broadmoor Bottom SU855629 [JL]; 25/6/15, 2, Decoy Heath SU6163 [JL]; 25/6/15, 3, Broadmoor Bottom SU8562 [JL]

70.300 *Comibaena bajularia*, Blotched Emerald (1667) Local

Earliest: 13/6/15, 2, Maidenhead Thicket SU85308073 [LJF]

Latest: 1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(LLP)]

70.302 *Hemistola chrysoprasaria*, Small Emerald (1673) Local

Earliest: 1/7/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 26/7/15, Maidenhead, Hemsdale SU869822 [LJF]

20 records in all(NMH)

NOTODONTIDAE, Prominents

71.001 *Thaumetopoea processionea*, Oak Processionary (2022) Immigrant

13/8/15, Erleigh Lake, Interpretation Centre SU75007096 [NMH(BMG)]

13/8/15, Harcourt Drive, Harcourt Drive, Earley SU73527096 [NMH]

I was at the BMG meeting on the evening of 13/8/15 when the Oak Processionary moth arrived, and then found another in my own trap

next morning. This is considered a pest species and its stinging hairs can be harmful to humans, so it had to be reported to the authorities (NMH).

71.007 *Furcula bifida*, Poplar Kitten (1998) Local

16/6/15, Snelsmore Common SU45897095 [LJF]; 7/8/15, 2, Beenham, Wolf Trust SU58986935 [PBL(LJF)]

71.016 *Peridea anceps*, Great Prominent (2005) Local

Earliest: 15/4/15, Windsor Forest, Bomber Ride SU93827132 [LJF]

Latest: 7/6/15, 2, Aldermaston, Paices Wood SU58406357 [NMH(BBOWT)]

71.022 *Ptilodon cucullina*, Maple Prominent (2009) Local

Earliest: 30/5/15, Snelsmore Common SU462710 [LJF]

Latest: 23/8/15, Maidenhead, Hemsdale SU869822 [LJF]

71.027 *Clostera curtula*, Chocolate-tip (2019) Local

Earliest: 11/4/15, Snelsmore Common SU462710 [PBL]

Latest: 15/8/15, Snelsmore Common SU462710 [PBL(RDNHS)]

EREBIDAE, Snouts, Tiger moths, Tussock Moths, Underwings.

72.004 *Hypena rostralis*, Buttoned Snout (2480) Notable B

22/5/15, Whitchurch Hill SU63697880 [IES]; 4/6/15, Tilehurst SU665742 [JL]; 4 & 10 /6/15, Maidenhead, Hemsdale SU869822 [LJF]; 21/11/15, Red Cow SU592868 “as usual in the cottage”[AR]

72.007 *Hypena crassalis*, Beautiful Snout (2476) Local

10/8/15, Windsor Forest, Bomber Ride SU93827132 [LJF]

72.009 *Leucoma salicis*, White Satin Moth (2031) Local

Earliest: 1/7/15, 2, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 14/7/15, Maidenhead, Hemsdale SU869822 [LJF]; 15/7/15, Red Cow SU592868 [AR]

72.015 *Calliteara pudibunda*, Pale Tussock (2028) Common

Latest spring record: 18/6/15, Snelsmore Common SU462710 [PBL]

Autumn record: 6/12/15, Nine Mile Ride SU835656 [Roger Hayward via PBL]

72.023 *Diacrisia sannio*, Clouded Buff (2059) Local

11/6/15, Broadmoor Bottom SU855629 [JL]

72.025 *Parasemia plantaginis*, Wood Tiger

(2056) Local

30/5/15, Seven Barrows SU 328828 [PBL]

72.029 *Callimorpha dominula*, Scarlet Tiger

(2068) Local

Earliest: 10/4/15, 18, Tilehurst, Westwood Road SU666742 [JH]

Latest: 9/7/15, Decoy Heath SU610634 [JL]

High count: 27 at Tilehurst, Westwood Road SU666742 on 30/6/15 [JH]

72.037 *Thumatha senex*, Round-winged Muslin (2035) Local

1/7/15, 6, Thatcham Reedbeds SU50206675 [NMH(RST)]; 12/7/15, Snelsmore Common SU46237118 [PBL]

72.038 *Cybosia mesomella*, Four-dotted Footman (2040) Local

Earliest: 3/6/15, Snelsmore Common SU462710 [LJF]

Latest: 15/7/15, Hazeley Heath SU764580 [JH(RDNHS)]

72.042 *Atolmis rubricollis*, Red-necked Footman (2039) Local

29/6/15, Maidenhead Thicket SU85268072 [LJF]; 1/7/15, Thatcham Reedbeds SU50206675 [NMH(LLP)]

72.047 *Eilema caniola*, Hoary Footman (2045) Notable B

Earliest: 10/7/15, Waltham Place SU85707706 [LJF]

Latest: 30/9/15, Maidenhead, Hemsdale SU869822 [LJF]

Also recorded from St Paul's Churchyard [PBL] & Tilehurst, Westwood Road [JH]

20 records in all (NMH)

72.052 *Macrochilo cribrumalis*, Dotted Fan-foot (2493) Notable B

3/7/15, Withymead SU600828 [PBL (P.Holland)]

72.061 *Schrankia costaestrigalis*, Pinion-streaked Snout (2484) Local

1/7/15, 3, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 1/10/15, Thatcham Reedbeds SU50206667 [LJF(LLP)]; 19/10/15, Winterbourne-Bagnor Road SU4571 [PBL]

72.063 *Lygephila pastinum*, The Blackneck (2466) Local

3/7/15, Withymead SU600828 [PBL]; 12/7/15, Red Cow SU592868 [AR]; 12/7/15, Red Cow SU592868 [AR]

72.066 *Parascotia fuliginaria*, Waved Black (2475) Notable B

Earliest: 4/7/15, Red Cow SU592868 [AR] Red Cow: 1 on 4/7/15 & 20/7/15

Latest: 14/8/15, Harcourt Drive, Earley SU73527096 [NMH]

18 records in all (NMH)

72.076 *Catocala fraxini*, Clifden Nonpareil (2451) Immigrant

9/9/15, Snelsmore Common SU46177113

[PBL]; Latest: 6/10/15, Snelsmore Common SU46177113 [PBL]. This year has produced considerably more records than usual of this impressive 'Blue Underwing' in Britain, presumably through both immigration and in spreading out from centres where it was known to be breeding (notably in Wiltshire). Hopefully, it will now establish itself at Snelsmore if has not already done so. There is plenty of its foodplant, Aspen, near where it was caught (NMH)

NOCTUIDAE, One of the two most populous families of macromoths.

Their caterpillars are not loopers.

73.003 *Trichoplusia ni*, The Ni Moth (2432) Immigrant

14/8/15, Maidenhead, Hemsdale SU869822 [LJF]

73.015 *Autographa gamma*, Silver Y (2441) Immigrant

Earliest: 25/4/15, Maidenhead, Hemsdale SU869822 [LJF]

Latest: 30/11/15, Maidenhead, Hemsdale SU869822 [LJF]

73.036 *Acronicta alni*, Alder Moth (2281) Local

30/5/15, Snelsmore Common SU46277114 [PBL]; 16/6/15, 0, Snelsmore Common SU46107112 [NMH]

73.048 *Panemeria tenebrata*, Small Yellow Underwing (2397) Local

19/5/15, Shinfield, Millworth Lane SU734676 [JH]; 19/5/15, Shinfield, Langley Mead SU734670 [JH]; 30/5/15, Ashford Hill Meadows SU5662 [PBL]

73.059 *Calophasia lunula*, Toadflax Brocade (2223) RDB

Maidenhead, Hemsdale SU869822 [LJF]: on 17 dates from 1/5/15 to 19/8/15 [LJF], but not recorded anywhere else (NMH)

73.070 *Pyrrhia umbra*, Bordered Sallow (2399) Local

21 & 23/7/15, Red Cow SU592868 [AR]

73.074 *Heliothis peltigera*, Bordered Straw (2403) Immigrant

5/6/15, Maidenhead, Hemsdale SU869822 [LJF]; 7/6/15, Aldermaston, Paices Wood SU58606358 [NMH(BBOWT)]; 9/6/15, Maidenhead, Hemsdale SU869822 [LJF];

14/6/15, Red Cow SU592868 [AR]; 17 & 20/6/15, Maidenhead, Hemsdale SU869822 [LJF]; 13/8/15, Harcourt Drive, Earley SU73527096 [NMH]; 21/8/15, Maidenhead, Hemsdale SU869822 [LJF]; 22/8/15, Westwood Road, Tilehurst SU666742 [JH]

13/8/15, Harcourt Drive, Earley SU73527096 [NMH]; 21/8/15, Maidenhead, Hemsdale SU869822 [LJF]; 22/8/15, Westwood Road, Tilehurst SU666742 [JH]

73.076 *Helicoverpa armigera*, Scarce Bordered Straw (2400) Immigrant

9/8/15, Leckhampstead, Hillgreen SU452767 [PBL]

73.082 *Cryphia algae*, Tree-lichen Beauty (2292) Immigrant

8/7/15, Maidenhead, Hemsdale SU869822 [LJF]; 2/8/15, 0, Harcourt Drive, Earley SU73527096 [NMH]; 3, 4, 9 & 10/8/15, Maidenhead, Hemsdale SU869822 [LJF]; 10/8/15, 2, Windsor Forest, Bomber Ride SU93827132 [LJF]; 13/8/15, Harcourt Drive, Earley SU73527096 [NMH]

73.087 *Spodoptera exigua*, Small Mottled Willow (2385) Immigrant

21/7/15, Red Cow SU592868 [AR]; 7/8/15, Beenham, Wolf Trust SU58996932 [PBL]; 8/8/15, Red Cow SU592868 [AR]; 9/8/15, Leckhampstead, Hillgreen SU452767 [PBL]; 20/8/15, Bowdown Wood, Bomb site SU50156571 [NMH(LLP)]

73.100 *Chilodes maritima*, Silky Wainscot (2391) Local

1/7/15, 7, Thatcham Reedbeds SU50206675 [NMH(RDO)]

73.105 *Dypterygia scabriuscula*, Bird's Wing (2301) Local

13/6/15, Moor Green Lakes SU805623 [PBL(I.Sims)]

17/6/15, 2, 30/6/15 & 18/7/15, Harcourt Drive, Earley SU73527096 [NMH]; 28/8/15, Windsor Forest, Bomber Ride SU93827132 [LJF]

73.119 *Helotropha leucostigma*, The Crescent (2368) Local

6/8/15, 6, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 4/9/15, Withymead SU60078288 [IES]

73.137 *Arenostola phragmitidis*, Fen Wainscot (2377) Local

6/8/15, 3, Thatcham Reedbeds SU50206675 [NMH(LLP)]

73.139 *Lenisa geminipuncta*, Twin-spotted Wainscot (2370) Local

13/8/15, Maiden Erlegh SU74897091 [PBL(BMG)]

73.141 *Archanara dissoluta*, Brown-veined Wainscot (2371) Local

6/8/15, 3, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 9/8/15, Leckhampstead, Hillgreen SU452767 [PBL]; 9/8/15, Leckhampstead, Hillgreen SU452767 [PBL]; 18/8/15, Maidenhead Thicket SU85068082 [LJF]

73.142 *Coenobia rufa*, Small Rufous (2379) Local

22/8/15, Wildmoor Heath SU844632 [PBL]

73.151 *Globia sparganii*, Webb's Wainscot (2373) Notable B

22/8/15, Wildmoor Heath SU844632 [PBL(I.Masters)]

73.164 *Apamea sublustris*, Reddish Light

Arches (2323) Local

22/5/15, Red Cow SU592868 [AR]; 20 & 29/6/15, Harcourt Drive, Earley SU73527096 [NMH]; 11/7/15, 2, Whitchurch Hill SU63697880 [IES]

73.197 *Conistra rubiginea*, Dotted Chestnut (2260) Notable B

20/3, 2/4 & 4/4/15, Maidenhead, Hemsdale SU869822 [LJF]

73.200 *Lithophane semibrunnea*, Tawny Pinion (2235) Local

4/4/15, Maidenhead, Hemsdale SU869822 [LJF]; 6/4/15, Leckhampstead, Hillgreen SU452767 [PBL]; 16/4/15, Baynes Wood SU51176515 [NMH(LLP)]

73.201 *Lithophane socia*, Pale Pinion (2236) Local

12 & 17/3/15, Maidenhead, Hemsdale SU869822 [LJF]; 9/4/15, Thatcham Reedbeds SU50206675 [NMH(LLP)]; 14/4/15, Maidenhead, Woolley Firs SU85168006 [LJF]

73.215 *Cosmia affinis*, Lesser-spotted Pinion (2316) Local

4 & 18/8/15, Maidenhead Thicket SU85068082 [LJF]

73.217 *Cosmia pyralina*, Lunar-spotted Pinion (2319) Local

15/7/15, 2, Touchen-end SU88157620 [IES]; 19/7/15, Leckhampstead, Hillgreen SU452767 [PBL]

73.221 *Parastichtis suspecta*, The Suspected (2268) Local

12/7/15, 2, & 1/8/15, 2, Snelsmore Common SU46067112 [LJF]

73.222 *Apterogenum ypsilon*, Dingy Shears (2314) Local

30/5/15, Moor Copse SU640734 [JL]; 26/6/15, Dinton SU7871 [PBL]; 1/7/15, 4, Thatcham Reedbeds SU50206675 [NMH(RDO)]; 10/7/15, St Paul's Churchyard SU805689 [PBL]

73.237 *Polymixis flavicincta*, Large Ranunculus (2252) Local

Earliest: 4/4/15, Snelsmore Common SU462710 [PBL]

Latest: 26/10/15, Maidenhead, Hemsdale SU869822 [LJF]

13 records in all (NMH)

73.244 *Orthosia cerasi*, Common Quaker (2187) Common

Earliest spring records: 11/2/15, 1, Whitchurch Hill SU63697880 [IES]; 1/3/15, 5, Snelsmore Common SU46127162 [PBL]

Latest spring records: 10/5/15, 1, Leckhampstead, Hillgreen SU452767 [PBL]

8/6/15, 1, Aldermaston, Paices Wood SU583638 [JL]

Autumn/winter records: 6/12/15, 1, Harcourt Drive, Earley SU73527096 [NMH];

25/12/15, 1, Snelsmore Common
SU46177113 [PBL]

**73.280 *Hecatera dysodea*, Small
Ranunculus (2165) pRDBK**

17/6/15, 9/7/15 & 20/9/15, Maidenhead,
Hemsdale SU869822 [LJF]

**73.283 *Hadena confusa*, Marbled Coronet
(2171) Local**

3/7/15, Withymead SU600828 [PBL(K.Tomey)]

**73.294 *Mythimna straminea*, Southern
Wainscot (2197) Local**

1/7/15, 14, Thatcham Reedbeds SU50206675
[NMH(RST)]; 14 & 19/7/15, Harcourt Drive,
Earley SU73527096 [NMH]; 6/8/15, 11,
Thatcham Reedbeds SU50206675
[NMH(LLP)]; 3/9/15, Thatcham Reedbeds
SU502667 [PBL(LLP)]

**73.297 *Mythimna albipuncta*, White-point
(2194) Recent colonist**

Earliest: 21/5/15, Maidenhead, Woolley Firs
SU85277983 [LJF]

Latest: 11/10/15, Leckhampstead, Hillgreen
SU452767 [PBL]

High count: 12/7/15, 7, Red Cow SU592868
[AR]

**73.302 *Leucania obsoleta*, Obscure
Wainscot (2204) Local**

1/7/15, 10, Thatcham Reedbeds SU50206675
[NMH(RST)]

**73.307 *Peridroma saucia*, Pearly Underwing
(2119) Immigrant**

29/10/15, Maidenhead, Hemsdale SU869822
[LJF]

**73.327 *Agrotis ipsilon*, Dark Sword-grass
(2091) Immigrant**

7/6/15, Maidenhead, Hemsdale SU869822
[LJF];

7/11/15, Maidenhead, Hemsdale SU869822
[LJF]

**73.337 *Cerastis leucographa*, White-
marked (2140) Local**

11/4/15, Snelsmore Common SU462710
[PBL]; 16/4/15, 8, Baynes Wood SU51176515
[NMH(LLP)];

19/4/15, Snelsmore Common SU46177106
[PBL]

**73.354 *Xestia stigmatica*, Square-spotted
Clay (2131) Notable B**

4/8/15, 18/8/15, 2, 19 & 20/15 Maidenhead
Thicket SU85068082 [LJF]

**73.355 *Xestia castanea*, Neglected Rustic
(2132) Local**

Earliest: 22/8/15, Wildmoor Heath SU844632
[PBL]

Latest: 20/9/15, 3, Snelsmore Common
SU46177113 [PBL]

No records from other sites (NMH)

**73.368 *Naenia typica*, The Gothic (2136)
Local**

13/7/15, Harcourt Drive, Earley SU73527096
[NMH], 17/8/15, Maidenhead, Hemsdale
SU869822 [LJF]

NOLIDAE

**74.001 *Meganola strigula*, Small Black
Arches (2075) Notable A**

12/7/15, Snelsmore Common SU462710
[PBL(LJF)]

**74.002 *Meganola albula*, Kent Black Arches
(2076) Notable B**

12/7/15, 2, Snelsmore Common SU46067112
[LJF]; SU462710 [LJF]; 16/7/15, Greenham
Common, Estovers SU499652 [PBL(LLP)]

**74.004 *Nola confusalis*, Least Black Arches
(2078) Local**

Earliest: 14/4/15, 3, Maidenhead, Woolley Firs
SU85168006 [LJF]

Latest: 12/6/15, Snelsmore Common
SU462710 [PBL]

14 records in all (NMH)

**74.007 *Bena bicolorana*, Scarce Silver-lines
(2421) Local**

Earliest: 25/6/15, Waltham Place SU85707706
[LJF]

Latest: 2/8/15, Harcourt Drive, Earley
SU73527096 [NMH]

9 records in all (NMH)

**74.009 *Nycteola revayana*, Oak Nycteoline
(2423) Local**

Earliest: 11/3/15, Maidenhead, Hemsdale
SU869822 [LJF]

Latest: 1/11/15, 2, Leckhampstead, Hillgreen
SU452767 [PBL]

7 records in all (NMH)

CONTRIBUTORS

Thanks are due to the following members for their submissions:

Andy Bolton (ABO), Tony Rayner (AR), Ian Esland (IES), Jan Haseler(JH), John Lerpiniere (JL) & Paul Black (PBL). Thanks are also due to Les Finch (LJF), and his son Martin (MJF), for their records from all over Berkshire, including many from east Berkshire, which our own members cover thinly, and from Snelsmore Common, which he is surveying regularly. Some of his Snelsmore records are from Alan Prior (APR) who identifies all micros by dissection where necessary. (RD NHS) denotes records from Reading & District Natural History Society field meetings and (LLP) denotes records from Living Landscape Project mothing nights in the Thatcham /Greenham area, in which traps are run by Roger Stace (RST), Roy Dobson (RDO), Paul Black (PBL), myself (NMH) and others.

RECORDER'S REPORT FOR VERTEBRATES

Tony Rayner

My grateful thanks to those who have contributed to this report. Once again special thanks are due to Rod D'Ayala, John Lerpeniere, Gordon Crutchfield, Jan Haseler and John Sumpter for their invaluable input. Where especially high numbers are recorded these are highlighted in bold. Where Cholsey grid references are not stated, the records relate to SU592868 (Red Cow Cottage.)

BIRDS

1 Exceptional local records:

***Lullula arborea* Woodlark**

6/5/15 One at Tadley SU598643 (GS)

10/5/15 One at Silchester Common SU620623 (GS)

***Luscinia megarhynchos* Nightingale**

30/4/15 Singing males at Greenham Common and New Greenham Park East (Rd'A)

***Athene noctua* Little Owl**

4/4/15 Two at Brightwell-cum-Sotwell SU5991 (TR)

***Cygnus Cygnus* Whooper Swan**

2/12/15 to 28/12/15 Family group of 5 on Cholsey Hill SU5888 (TR/PC)

***Coturnix coturnix* Quail**

7/7/15 Many calling on the Downs above Compton SU5282 (TR)

2 Seen/heard on local RDNHS field trips (or in members' gardens):

***Muscicapa striata* Spotted Flycatcher**

29/7/15 Family group of 5 at Basildon Park SU606783 (JH)

26/8/15 Family group of 4 at Basildon Park SU614781 (JH)

***Saxicola torquata* Stonechat**

27/9/15 One at Greenham Common (MKL)

***Fringilla montifringella* Brambling**

25/2/15 Ten at Basildon Park SU605779 (JH)

***Carduelis flammea* Lesser Redpoll**

30/10/15 to 29/12/15 Up to 6 seen regularly in Cholsey garden (TR)

***Serinus serinus* Siskin**

3/9/15 to 14/12/15 20 arrived in Cholsey garden in September and numbers declined until just one remained in mid December (TR)

***Corvus corax* Raven**

15/4/15 Two at Ashampstead SU570758 (JH)

FISH

***Gasterosteus aculeatus* Three-spined Stickleback**

6/5/15 At least 25 in Newt Pond at Sutton Courtenay EEC SU501917 (Rd'A)

***Salmo trutta* Brown Trout**

7/9/15 Present in Kings Pool, Ewelme SU644915 (Rd'A)

AMPHIBIANS

***Bufo bufo* Common Toad**

Feb/Mar **2697** Adults collected and carried across road at Oaken Wood, Hambledon. 1886 were males. The ratio of 2.14 males to females was consistent with previous years, but overall numbers were well down. Use of the new ponds was disappointing. (JS)

6/3/15 to 3/4/15 One found in Cholsey meadow under reptile sheets and in the open on 8 days (TR)

11/4/15 to 5/10/15 A total of 10 sightings in a Didcot garden SU521895 (Rd'A)

18/3/15 Two adults in Goring garden pond SU603810 (TW)

17/4/15 Adult in Greenmoor Ponds SU6481 (Rd'A)

4/5/15 One immature at Paices Wood SU585639 (JL)

5/5/15 Adult at Tilehurst SU665742 (JL)

27/6/15 4 immatures at Greenham Common (Rd'A)

15/8/15 Immature at Paices Wood SU585639 (JL)

20/8/15 Two adults at Peppard Common SU7081 (Rd'A)

12/11/15 Immature at Hosehill LNR SU648694 (JL)

23/11/15 Adult at Chalkhills, Whitchurch (Rd'A)

***Triturus vulgaris* Smooth Newt**

Feb/Mar 23 adults carried across road at Hambledon (JS)

20/3/15 to 17/12/15 Total of 71 sightings in a Didcot garden pond. Max of 10 on 25/6/15 SU521895 (Rd'A)

28/4/15 35 caught in 4 ponds at Little Wittenham NR SU567934 (Rd'A)

29/4/15 Adult at Brookfield School SU662753 (JL)

6/5/15 & 7/5/15 Total of 104 caught at Sutton Courtenay EEC SU5091 (Rd'A)

***Triturus helveticus* Palmate Newt**

8/4/15 to 25/6/15 Six sightings in Didcot garden SU521895 (Rd'A)

17/4/15 Three adults in Upper Pond at

Greenmoor Woodcote SU6481 (Rd/A)
17/4/15 Adult at Crays Pond SU6380 (Rd'A)
17/4/15 Two adults at Tinepits Pond,
Whitchurch Hill SU638792 (Rd'A)
7/8/15 Adult at Almshouse Pond, Goring
Heath SU655795 (Rd'A)

***Triturus cristatus cristatus* Great Crested
Newt**

25/3/15 to 10/10/15 A total of 27 sightings in
Didcot garden with a maximum of 6 on 8/4/15
SU521895 (Rd'A)
28/4/15 14 adults caught at Little Wittenham
NR SU567935 (Rd'A)
6/5/15 & 7/5/15 Total of 120 caught at Sutton
Courtenay EEC SU5091 (Rd'A)
27/6/15 to 13/9/15 Maximum of 8 on 13/9/15 at
Sutton Courtenay EEC SU5091 (Rd'A)
27/6/15 One adult and seven juveniles at
Greenham Common (Rd'A)
1/7/15 Good numbers of larva in Education
Pond, Little Wittenham NR SU5692 (Rd'A)
27/8/15 Adult at Kintbury Newt Ponds
SU386664 (JL)

***Rana temporaria* Common Frog**

Feb/Mar 297 adults carried across road at
Hambledon, this was more than usual (JS)
9/3/15 to 28/10/15 with first spawn on 13/3/15
and 40 clumps on 18/3/15 with a max of 11
individuals on 5/10/15 in Didcot garden
SU521895 (Rd/A)
20/2/15 One at Westwood Road, Tilehurst
garden SU666742 (JL)
24/2/15 Four juveniles at Woodcote Primary
School (Rd'A)
14/3/15 Lots of adults and spawn at
Greenmoor Ponds SU646813 (Rd'A)
14/3/15 First frogspawn (50+) in Tilehurst
garden SU664742 (JH)
18/3/15 Four spawn clumps in Goring garden
pond SU603810 (TW)
28/3/15 Lots of spawn at Sutton Courtenay
EEC SU5091 (Rd'A)
6/4/15 Five immature at Brookfield School
SU663754 (JL)
28/4/15 Three at Little Wittenham Nature
Reserve SU566934 (Rd'A)
29/4/15 2 Adults & many froglets & spawn at
Brookfield School SU662753 (JL)
3/6/15 Immature at Bradfield SU580727
(JL)
8/6/15 Immature at Paices Wood
SU583638 (JL)
30/7/15 Five adults at Peppard Common
SU705815 (Rd'A)
17/8/15 Two juveniles at Sheepdrove Farm
SU360820 (JL)
29/8/15 Adult & froglet in Tilehurst allotment
SU670748 (JL)
8/9/15 Three at Sheepdrove Farm SU3581

(JL)
3/11/15 Two at Stanford Dingley SU572714
(JL)
4/11/15 Juvenile at Moor Copse SU640743
(JL)

***Rana ridibunda* Marsh Frog**

No records received

REPTILES

***Lacerta vivipara* Common Lizard**

25/2/15 to 14/8/15 A total of 65 sightings at
Cholsey with a max. of 7 on 4/5/15. Predation
and habitat loss on adjoining land probable-
causes of the decline this year. (TR)
6/4/15 Adult at Decoy Heath SU611634 (JL)
8/4/15 and 27/4/15 at Peppard Common
SU705815 (Rd'A)
30/4/15 Four at Decoy Heath SU610634
(Rd'A)
4/5/15 2 immature at Paices Wood
SU584638 (JL)
9/5/15 Adult at Wokefield Common
SU650662 (JL)
7/6/15 Adult at Wokefield Common
SU651662 (JL)
8/6/15 2 adults at Paices Wood SU584638
(JL)
15/7/15 Adult at Padworth Common
SU619644 (JL)
17/7/15 Adult female at Broadmoor Bottom
SU855629 (JL)
4/9/15 Four juvs/young at Nettlebed
Common (Rd'A & JW)
18/9/15 Juvenile at Decoy Heath SU611633
(JL)

***Anguis fragilis* Slow-worm**

7/3/15 to 17/10/15 A total of **1200** sightings
with a maximum count of **105** on 10/4/15 at
Cholsey. (*fewer counts this year*) (TR)
1/3/15 to 15/11/15 Total of **340** sightings in
Didcot garden SU521895 (Rd/A)
2/4/15 to 8/9/15 At least 56 sightings at
Greenham Common (MB, AB)
7/4/15 to 4/10/15 Total of 96 records at
Chalkhills,Whitchurch (Rd/A)
8/2/15 Road kill at Shillingford Bridge
SU5992 (AB)
1/4/15 Adult female at Decoy Heath
SU610633 (JL)
2/4/15 Adult female in Tilehurst garden
SU644742 (JL)
24/4/15 Three adults at Padworth Common
SU618646 (JL)
26/4/15 One at Westwood Road, Tilehurst
SU666742 (JH)
9/5/15 Immature at Wokefield Common
SU651663 (JL)
26/5/15 Two females at Paices Wood
SU587640 (JL)

27/5/15 Three immatures at Decoy Heath SU611633 (JL)
 15/7/15 3 adult females at Padworth Common SU618647 (JL)
 27/8/15 Eight at Kintbury Newt Ponds SU386664 (JL)
 11/9/15 Three at Fobney Island SU704711 (JL)
 17/10/15 Immature at Hosehill LNR SU684694 (JL)
Natrix natrix Grass Snake
 16/4/15 to 27/6/15 At least 8 sightings at Greenham Common (MB, AB)
 6/3/15 to 10/11/15 A total of 151 sightings with a record maximum of **19** on 17/4/15 at Cholsey site. (*fewer counts than usual this year*) (TR)
 Small numbers through the year at Chalkhills, Whitchurch (SP)
 23/5/15 Adult crossing road at Eling SU538741 (JL)
 26/5/15 3 adults at Paices Wood SU583637 (JL)
 7/6/15 Adult at Wokefield Common SU650662 (JL)
 8/6/15 2 adults at Paices Wood SU583636 (JL)
 17/6/15 Juvenile in Didcot garden (Rd'A)
 3/7/15 Four at Paices Wood SU583636 (JL)
 15/7/15 2 adults at Padworth Common SU618647 (JL)
 4/8/15 Adult & immature at Paices Wood SU583637 (JL)
 27/8/15 Adult & Juvenile at Kintbury Newt Ponds SU386664 (JL)
 5/9/15 Juvenile at Hosehill LNR SU648694 (JL)
 5/9/15 Adult at Hosehill LNR SU650697 (JL)
 6/9/15 Three at Paices Wood SU583638 (JL)
 7/9/15 Adult at Padworth Common SU618647 (JL)
Vipera berus Adder
 24/3/15 Adult female at Decoy Heath SU611644 (JL)
 1/4/15 Two adults at Decoy Heath SU611634 & SU611644 (JL)
 2/4/15 to 8/9/15 Total of 26 sightings at Greenham Common (AB,MB)
 30/4/15 Two adults at Decoy Heath SU610634 (Rd'A)
 9/5/15 Adult female at Wokefield Common SU651663 (JL)
 23/6/15 One immature at Decoy Heath SU611631 (JL)
 15/7/15 Female at Padworth Common SU618647 (JL)
 15/7/15 One at Hazeley Heath on RDNHS field trip SU764580 (JH)

7/8/15 Female at Decoy Heath SU611634 (JL)
 4/9/15 Adult male at Padworth Common SU618648 (JL)

BATS

Pipistrellus pipistrellus Common Pipistrelle

7/4/15 to 16/4/15 One in Cholsey garden (TR)
 16/4/15 Four at Whitchurch Hill churchyard (Rd/A, AP)
 7/6/15 to 31/7/15 Several particularly active in Cholsey garden (TR)
 4/11/15 Adult at Maidensgrove Common SU710891 (Rd/A)

Myotis daubentonii Daubenton's

No records received

Plecotus auritus Brown Long-eared Bat

No records received

Nyctalus noctula Noctule

8/7/15 to 11/7/15 Max of four over Cholsey meadow (TR)

INSECTIVORES

Erinaceus europaeus Hedgehog

12/1/15 Adult in Cholsey garden (TR)
 8/5/15 Road kill at Paices Hill SU591646 (JL)
 20/6/15 Adult at night in Didcot garden SU5289 (Rd'A)
 25/6/15 Road kill at Bracknell SU858682 (JL)
 July/15 Two in Didcot garden for several days SU5289 (Rd'A)
 5/7/15 Road kill at Englefield SU632722 (JL)
 5/7/15 One in Sonning Common garden (PB)
 10/7/15 Road kill at Wokingham SU807709 (JL)
 7/8/15 Road kill at North Street SU623729 (JL)
 11/8/15 Road kill at Englefield SU632729 (JL)
 5/9/15 Road kill at Didcot SU520898 (Rd'A)
 4/12/15 Juvenile* crossing Cholsey drive (TR/RR)
 7/12/15 Road kill* at Cholsey SU592869 (TR)

Sorex araneus Common Shrew

9/1/15 to 25/4/15 Total of 17 sightings at Cholsey site (TR)
 16/2/15 One at Hosehill butterfly bank SU648694 (JL)
 25/3/15 One at Hosehill LNR SU650694 (JL)
 11/4/15 One dead at Alder Moors SU7774 (RG)
 14/4/15 One at Scratchface Copse, Bradfield SU580727 (JL)

21/4/15 Two road kills at Hampstead Norreys SU5375 (JL)
8/5/15 One at Paices Wood SU584638 (JL)
7/6/15 One at Paices Wood SU586639 (JL)
27/6/15 One under refuge at Greenham Common (Rd'A)
7/7/15 One at Paices Wood SU585640 (JL)
1/8/15 One at Hosehill LNR SU651697 (JL)
18/9/15 One at Decoy Heath SU609634 (JL)
9/10/15 One at Hosehill LNR SU651697 (JL)
12/10/15 One at Paices Wood SU585640 (JL)

Sorex minutus Pygmy Shrew

24/1/15 One at Hosehill butterfly bank SU648694 (JL)

15/8/15 One at Paices Wood SU583636 (JL)

Neomys foedens Water Shrew

8/3/15 Adult dead on track at Moor Copse SU634740 (JL)

Talpa europaea Mole

Significant spread onto Cholsey meadow from neighbouring wilderness area (TR).

4/1/15 50 hills at Streatley Warren SU556804 (JL)

4/1/15 30 hills at Streatley Warren SU555806 (JL)

27/3/15 30 hills at Bockhampton Down SU357818 (JL)

4/6/15 10 hills at Sheepdrove Farm Lambourn SU358819 (JL)

4/6/15 10 hills at Sheepdrove SU362819 (JL)

16/6/15 & 30/6/15 One at Pingewood SU690708 (GC)

27/8/15 20 hills at Kintbury Newt Ponds SU386662 (JL)

27/10/15 Two sets of hills in Harris Garden, University of Reading SU737714 (JH)

CARNIVORES

Meles meles Badger

1/2/15 Two Road kills on and near the Wallingford Bypass, Cholsey SU603881 (TR)

5/2/15 Road kill at Speen SU443679 (JL)

7/2/15 Road kill near Brightwell-cum-Sotwell SU5791 (Rd'A)

18/2/15 Road kill at Padworth SU611685 (JL)

23/2/15 Road kill at Streatley SU600794 (JL)

9/3/15 Road kill at Lower Basildon SU602793 (JL)

7/4/15 Road kill at Englefield SU632734 (JL)

7/4/15 Road kill at Theale SU639707 (JL)

14/4/15 Road kill at Aldermaston SU591643 (JL)

7/6/15 Road kill at Sulhampstead SU624697 (JL)

8/7/15 Active setts at Lough Down Streatley (JL)

17/7/15 Adult at Hampstead Norreys

SU533757 (JL)

17/7/15 Road kill at Winnersh SU714701 (JL)

28/7/15 Road kill on Wallingford Bypass SU745887 (Rd'A)

28/7/15 One at Burghfield Common in a copse SU661677 (JH)

15/8/15 Road kill at Sulham SU646744 (JL)

25/8/15 Road kill at Woolhampton SU567667 (JL)

21/9/15 Road kill at Lower Basildon SU602793 (JL)

Mustela nivalis Weasel

20/4/15 One crossing the Wallingford Road, Cholsey SU596875 (RR)

Mustela erminea Stoat

23/1/15 Adult at Hampstead Norreys SU535754 (JL)

31/4/15 One at Brightwell-cum-Sotwell SU5991 (TR)

27/9/15 Road kill at Great Shefford SU383721 (JL)

Mustela putorius sp Polecat/Ferret

1/5/15 Adult road kill by Nettlebed Woods SU707864 (Rd'A)

26/9/15 Adult road kill at Moulsoford SU577836 (Rd'A)

Mustela vison American Mink

No records received

Vulpes vulpes Fox

10/1/15 One at Tilehurst SU674731 (JL)

17/1/15 One at Caversham SU710786 (GC)

30/1/15 One at Basildon Park crossing open parkland SU607777 (JH)

10/3/15 Road kill at Crowmarsh SU622891 (Rd'A)

12/3/15 One at Shinfield Park SU731695 (JH)

20/3/15 One barking at 3am in Tilehurst SU664742 (JL)

11/4/15 One at Aldermos, Woodley on RDNHS field trip SU776741 (JH)

15/4/15 One at Emmer Green SU714764 (GC)

18/4/15 Road kill at Beech Hill SU712644 (JL)

23/4/15 One at Burnthouse Lane SU690689 (JL)

22/5/15 One at Emmer Green SU715759 (GC)

6/6/15 One at Pingewood SU693703 (GC)

27/6/15 Road kill at Tidmarsh SU633737 (JL)

30/6/15 One at Pingewood SU678703 (GC)

3/7/15 One at Southcote SU683714 (GC)

13/7/15 Road kill at Pangbourne SU629768 (JL)

17/7/15 One at Pingewood SU677702 (GC)

11/8/15 One at Nut Wood Sheepdrove SU360820 (JL)

19/8/15 One at Emmer Green SU717761

(GC)

3/9/15 Road kill at Sulham SU643742 (JL)

1/12/15 One at Tilehurst SU658746 (JH)

***Lutra lutra* Otter**

23/1/15 One in The Thames by Cholsey Marsh SU607876 (PC)

25/1/15 One reliably reported in Thameside garden, Moulsoford SU592842 (PC) (*probably the same individual as the one seen 2 days earlier*)

***Rattus norvegicus* Brown Rat**

9/4/15 & 17/4/15 One at Emmer Green SU713767 (GC)

7/8/15 at Emmer Green SU713767 (GC)

DEER

***Muntiacus reevesi* Muntjac**

30/1/15 Adult at Wyfold Lane, Peppard (Rd'A)

4/2/15 One at Bucklebury Common SU554690 (JL)

10/3/15 One at Southend Bradfield SU599714 (JL)

4/4/15 One at Tilehurst SU672749 (JL)

6/4/15 Road kill at Paices Hill Aldermaston SU591641 (JL)

6/4/15 One at Bartons Field Moor Copse SU640737 (JL)

9/4/15 One at Starvale Wood, Mortimer SU656665 (JH)

16/4/15 One at Greyfield Wood Beenham SU578687 (JL)

2/5/15 One at Upper Basildon SU589769 (JL)

14/5/15 Road kill on A329 at Wokingham SU815703 (JL)

2/6/15 & 3/3/15 One calling at night and seen in morning at Cholsey (TR)

7/6/15 One at Paices Wood SU583637 (JL)

9/7/15 One at Fobney SU698711 (JL)

5/9/15 Road kill on Wallingford Bypass (Rd'A)

15/10/15 Road kill at Tidmarsh SU633742 (JL)

16/12/15 One at Kingwood Common SU695826 (JH)

18/12/15 Road kill at Hermitage SU517736 (JL)

***Capreolus capreolus* Roe Deer**

3/1/15 Two in Cholsey meadow (TR)

4/1/15 One beside Green Lane, Cholsey (TR)

10/1/15 Three at Winterbourne Wood SU443722 (JL)

23/1/15 Two at Winterbourne Wood SU444719 (JL)

6/2/15 Male at Basildon Park SU604780 (TR)

24/3/15 Tracks at Decoy Heath SU610634 (JL)

26/3/15 Two at Eling SU535741 (JL)

9/4/15 Two at Grazeley Church SU699669 (JH)

11/4/15 Road kill at Lambourn Woodlands SU325755 (JL)

27/5/15 Two males in Cholsey field (TR)

8/6/15 Road kill at Brimpton Common SU577627 (JL)

11/6/15 Road kill at Arrowhead Is. Theale SU652708 (JL)

21/10/15 Three at Lee Farm Pitt, Twyford SU784733 (JL)

25/10/15 Six at Ufton Nervet on field trip SU633676 (JH)

12/12/15 Two crossing Cholsey meadow (TR)

***Dama dama* Fallow Deer**

11/4/15 15 at Lambourn Woodlands SU331767 (JL)

22/4/15 Herd at Cleeve Hill SU333765 (JL)

9/5/15 Four at Burchetts Green SU832805 (GC)

31/7/15 Two at Cleeve Hill SU333766 (JL)

31/12/15 15 including a large male at Axmansford, Tadley SU565603 (ABo)

***Cervus elaphus* Red Deer**

No records received

RABBITS & HARES

***Lepus europaeus* Brown Hare**

23/1/15 Two at Winterbourne Wood SU447718 (JL)

18/2/15 One at Streatley Warren on field trip SU552810 (JH)

22/3/15 Two at Moulsoford SU579835 (JL)

29/5/15 Road kill at Englefield SU629729 (JL)

31/5/15 One at Nunhide Lane, Sulham SU648728 (JL)

***Oryctolagus cuniculus* Rabbit**

11/2/15 Adult in Cholsey garden (TR)

1/3/15 Three at North Street SU637721 (JL)

21/4/15 Six at Hampstead Norreys SU5375 (JL)

11/5/15 One in Cholsey meadow (RR)

14/5/15 One in Cholsey garden flowerbed (RR)

7/6/15 One in Paices Wood SU588638 (JL)

21/7/15 Road kill at Wickham Heath SU424692 (JL)

23/7/15 Road kill at Sulhampstead SU625698 (JL)

7/8/15 One at Hosehill LNR SU648694 (JL)

22/8/15 Road kill at Ashampstead Green SU551768 (JL)

24/9/15 Road kill at Lambourn SU314770 (JL)

27/12/15 Three in Cholsey field (TR/RR)

RODENTS

Sciurus carolinensis Grey Squirrel

Up to 3 seen throughout the year in Cholsey garden (TR/RR)

23/1/15 One in Winterbourne Wood SU444721 (JL)

7/6/15 One at Paices Wood SU587639 (JL)

25/6/15 One at Horsemoor Copse Moor Copse SU640734 (JL)

5/7/15 Road kill at Cold Ash SU513699 (JL)

15/7/15 One at Prospect Park SU692728 (JL)

21/7/15 Road kill at Wickham Heath SU415699 (JL)

21/8/15 Road kill at Sulhampstead SU635681 (JL)

31/8/15 One at Pierces Hill Tilehurst SU665742 (JL)

11/10/15 Road kill at Great Bear Pangbourne SU612741 (JL)

12/10/15 Road kill at Englefield SU631720 (JL)

1/11/15 Two at Blundells Copse SU6773 (JL)

2/11/15 Road kill at Streatley SU592822 (JL)

November 2015 One or Two in Didcot garden SU521895 (Rd/A)

25/11/15 Two at Prospect Park SU691728 (JL)

1/12/15 Road kill at Bradfield SU602721 (JL)

Apodemus sylvaticus Wood Mouse

3/1/15 One trapped in Tilehurst garage SU665742 (JL)

24/2/15 Adult under reptile refuge at Woodcote Primary School (Rd'A)

3/4/15 to 14/8/15 Just 4 sightings beneath refuges at Cholsey (TR)

8/4/15 Caches of opened hazel nuts at Peppard Common SU706688 (Rd'A)

24/4/15 Two at Padworth Common SU618647 (JL)

13/5/15 & 11/8/15 & 19/8/15 One at Pingewood SU690708 (GC)

15/7/15 One at Padworth Common SU618647 (JL)

20/8/15 Adult at Peppard Connon SU7068

(Rd'A)

5/9/15 One at Hosehill butterfly bank SU648694 (JL)

Apodemus flavicollis Yellow-necked Mouse

No date One under snake refuge at Chalkhills, Whitchurch (Rd'A)

Muscardinus avellanarius Dormouse

17/2/15 Adult in nest at Peppard Common SU7081 (Rd'A)

12/9/15 Adult & young in nest at Peppard Common SU7081 (Rd'A)

Micromys minutes Harvest Mouse

14/11/15 Eleven nests found at Moor Copse SU638735 (JL)

Microtus agrestis Field Vole

9/1/15 to 8/5/15 Total of just 15 sightings beneath refuges at Cholsey (TR)

4/2/15 One at Kintbury Newt Ponds SU387663 (JL)

1/3/15 One at Hosehill LNR SU652697 (JL)

20/8/15 One adult at Peppard Common SU7068 (Rd'A)

27/8/15 One at Kintbury Newt Ponds SU386662 (JL)

4/10/15 Adult under refuge at Chalkhills, Whitchurch (Rd/A)

12/10/15 One at Paices Wood SU588636 (JL)

Clethrionomys glareolus Bank Vole

3/1/15 to 11/2/15 One under Cholsey bird feeders (RR/TR)

9/1/15 to 14/8/15 Total of **121** sightings beneath refuges at Cholsey (TR).

10/1/15 One at Hosehill butterfly bank SU648694 (JL)

10/6/15 One at Emmer Green SU709768 (GC)

7/7/15 One at Paices Wood SU583636 (JL)

4/9/15 One at Paices Wood SU583636 (JL)

27/10/15 One at Paices Wood SU583636 (JL)

21/11/15 Feeding signs at Hosehill LNR SU648694 (JL)

Arvicola terrestris Water Vole

No records received

CONTRIBUTORS

Thanks to – **ABo** Andy Bolton; **AB** Andrew Burdock; **MB** Martin Burdock; **MBr** Mark Bradfield; **PB** Paul Brealey; **GC** Gordon Crutchfield; **PC** Paul Chandler; **Rd/A** Rod d/Ayala; **JH** Jan Haseler; **MJK** Michael Keith-Lucas **JL** John Lerpeniere; **AP** Alan Parfitt; **SP** Sandra Parkinson; **GS** Graham Saunders, **RR** Ro Rayner; **TR** Tony Rayner; **JS** John Sumpter; **JW** Judy Webb; **TW** Tom Worthington

THE WEATHER IN READING DURING 2015

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Averages and anomalies mentioned in this report refer to the climatological period 1981-2010, while extremes refer to the period 1908-2015.

NOTE: (Temperatures are formatted as °C, temperature differences are formatted as degC)

2015 was slightly warmer than average overall, due entirely to the warmth of November and December. The year was cooler than 2014 but milder than 2013 in Reading. Four months were wetter than normal (two of them, January and February, only just so) and overall 2015 was drier than normal – being the driest year since 2010. The first seven months of the year, along with September, were sunnier than normal and the year as a whole was sunnier than average - but still slightly duller than in 2014. There were 10 days with snow seen to fall but only 4 with thunder during the year – the latter count being much lower than normal. Of the 70 sunless days noted during the year, 43 occurred in October to December.

January

-6.3 °C on the 23rd was the lowest air temperature recorded during the year, while 15.5 °C on the 9th (recorded after sunset at 1748 GMT) was the highest January temperature on record. Snow or sleet fell on five days but amounts were small and any lying snow soon melted. Almost half the days with air frost recorded in 2015 occurred this month. It was a sunny month with seven sunless days.

February

February was the coldest month of the year, although it was only slightly cooler than normal overall. Snow fell on four days during the month, lying to a depth of 2 cm at 0900 GMT on the 3rd – the greatest snow depth observed during the year. There was a ground frost on 22 of the 28 mornings.

March

The highest temperature recorded in March just matched that of January, and temperatures during the month as a whole turned out about average. The partial solar eclipse on the morning of 20th was obscured by a complete cover of low stratus although the air temperature dipped by about 0.5 degC during the event. The month had barely half the normal March rainfall – with no measureable rainfall during the 2nd-14th. It was also a sunny month with just two sunless days.

April

The spring of 2015 was unusually sunny (the fifth sunniest on record), helped in part by a very sunny April. In fact, April was the fourth sunniest on record with 13.4 h of sunshine on the 21st making this the fifth sunniest April day on record. With just 14.7 mm of rain, this was the driest month of 2015 in Reading – just 1 mm of rain fell in the 20 days from the 4th. On the 10th a light fall of Saharan dust fell in places around the town. As a result of the sunny conditions, the month was 1 degC warmer than average. There were no air frosts.

May

The highest temperature observed in this cool May (20.2 °C) was lower than that of April (23.0 °C) and made this the lowest 'highest temperature in May' since 1994 when 19.7 °C was the highest value. May 2015 was a month without any real warm weather as winds blew frequently from a westerly direction. May was slightly duller than April, but still sunnier than normal.

June

The highest temperature of June 2015 (30.6 °C, credited to the 30th) actually occurred at 0900 GMT the next day – in July – as measurements refer to the 24-hour period beginning at 0900 GMT. Overall, June's temperatures were close to average with some cool nights during the first week. June was a dry month – and also the sunniest of the year.

July

July began with hot weather. After an overnight minimum temperature of 18.5 °C, the temperature climbed rapidly to 30.6 °C by 0900 GMT on the 1st; this was 2.2 degC higher at that time of day than had ever been recorded previously at the university in any month. By the end of the day (the 1st) the temperature had reached 33.5 °C – the equal fifth highest July temperature on record. But July ended on a cool note; on the 31st the minimum air temperature was 5.0 °C (the second coldest July night since 1908) and there was a slight ground frost; this was the second lowest July air temperature on record. Overall July, although the warmest month of 2015, was still cooler than normal. 36.9 mm of rain fell on the 24th, the wettest day of the year and the wettest July day for eight years.

August

August was the wettest month of 2015 with 42.6 mm of rain falling in a wet spell 22nd-24th. Average temperatures were below normal – but the month was the only one of 2015 without any ground frost (just) as the grass minimum temperature did fall to 0.4 °C on the 1st. At the other end of the month, the Bank Holiday Monday was noticeable cool and wet – by 4 p.m. the temperature had only reached 15 °C and the day remained sunless. Indeed, August was quite dull overall – being only just sunnier than March and the dullest August for five years.

September

Relative to the long-term average, September was the coolest month of 2015 and the coolest September since 1993. There were six ground frosts during the month – caused by clear skies at times, which led to it being a sunnier month than the preceding August. The rainfall total for the month was below normal.

October

Despite the 11 days with ground frost recorded during the month, October was only just cooler than September by night – and overall the month was slightly warmer than normal. October was another dry month. There was no measurable rainfall for 12 consecutive days between the 8th and 19th while almost half the rain fell on the 5th. After a sunny start – 40 per cent of the month's sunshine occurred in the first four days – it was a dull October, and the month had an unusually high frequency of winds from the north and north-east.

November

November 2015 was a remarkably mild and dull month in Reading, although on the 21st there was a slight fall of snow - which occurred before the first autumn/winter air frost for only the seventh time in 108 years. Overall it was the third warmest November on record – and there were only two mornings with an air frost. Rainfall for the month was close to normal but it was a dull month with just 18.4 h of sunshine. During the month there were 17 sunless days, while the low sunshine total made this the dullest November on record and the dullest of any month since December 2010, when 13.4 hours were recorded.

December

December saw a continuation of the unusual warmth of the preceding November with the temperature rising to 14.6 °C on the 16th; this was then followed by 15.5 °C on the 17th and 19th. (Only in December 1985 has a higher temperature, 15.8 °C, been recorded.) Then, after a mild Boxing Day, the minimum temperature recorded on the 27th was the highest ever recorded in the month, at 12.8 °C. December was much milder overall than average – by 5.8 degC. In the past one hundred years no other month had been warmer than average by more than 3.9 degC. There were no air frosts during the month, which was warmer than January-April and also warmer than November this year. The warm conditions of this, and the preceding month, were enough to bring out blossom on some bushes and to cause daffodils to emerge unusually early.

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 observer, Mike Stroud. 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 your inbox.

If you would like to learn more about the weather of Reading then a book written in 2015 by Roger

Brugge and Stephen Burt as part of the 50th anniversary of the University of Reading's Department of Meteorology and titled *One hundred years of Reading weather* might be of interest. See <http://www.met.reading.ac.uk/ReadingWeather.html> for more details.

		J	F	M	A	M	J	J	A	S	O	N	D	2015
Mean maximum temperature	°C	8.6	7.5	11.0	15.4	16.3	20.8	22.1	20.9	17.7	15.0	12.8	13.2	15.1
Mean maximum anomaly	degC	0.9	-0.5	0.2	1.9	-0.7	0.8	-0.3	-1.2	-1.3	0.1	2.1	5.3	0.6
Mean minimum temperature	°C	1.3	1.3	3.7	4.7	7.7	10.1	12.1	12.5	8.6	8.0	7.2	8.4	7.1
Mean minimum anomaly	degC	-0.6	-0.4	0.2	0.0	0.0	-0.5	-0.6	0.0	-1.7	0.4	2.8	6.2	0.4
Mean temperature	°C	5.0	4.4	7.4	10.1	12.0	15.5	17.2	16.7	13.2	11.5	10.0	10.8	11.1
Mean temperature anomaly	degC	0.2	-0.4	0.3	1.0	-0.4	0.2	-0.4	-0.6	-1.4	0.3	2.5	5.8	0.5
Highest temperature	°C	15.5	12.3	15.5	23.0	20.2	30.6	33.5	29.3	21.2	18.2	16.8	15.5	33.5
Date		9	25	28	15	11	30	1	22	11	1	6	17,19	
Lowest maximum temperature	°C	3.4	2.1	7.1	9.7	11.5	14.9	14.8	15.7	13.8	12.0	5.5	8.8	2.1
Date		18	2	19	4	14	1	24	31	22	25	21	13	
Highest minimum temperature	°C	10.4	7.0	8.4	10.5	12.3	14.3	18.5	17.4	14.9	14.0	13.0	12.8	18.5
Date		10	26	31	25	23	28	1	21	12	6	11	27	
Lowest temperature	°C	-6.3	-3.0	-0.9	1.0	3.0	4.7	5.0	6.5	3.5	1.5	-2.0	3.5	-6.3
Date		23	2	5	5	13	4	31	1	26	25	22	9	
Lowest grass minimum temperature	°C	-12.1	-9.0	-7.4	-6.2	-5.0	-2.7	-1.2	0.4	-2.4	-4.0	-7.9	-3.3	-12.1
Date		23	2	25	20	13	7	31	1	6	25	23	25	

		J	F	M	A	M	J	J	A	S	O	N	D	2015
Total precipitation	mm	66.5	44.7	25.2	14.7	45.4	24.7	60.5	77.7	45.4	51.1	60.6	56.0	572.5
Percentage of the average precipitation	%	110	109	57	31	98	55	132	149	90	71	92	89	90
Number days with 0.2mm or more	days	21	14	10	7	13	8	14	14	9	11	23	23	167
Number of days with 1.0mm or more	days	13	9	8	6	10	6	7	9	8	7	18	14	115
Greatest fall in 24 hours	mm	12.7	15.5	6.6	3.9	10.8	11.7	36.9	16.7	14.0	22.8	9.3	12.3	36.9
Date		14	13	16	24	14	20	24	24	13	5	17	30	
Number of days with air frost	days	12	9	2	0	0	0	0	0	0	0	2	0	25
Number of days with ground frost	days	24	22	19	16	12	4	1	0	6	11	6	4	125
Number of days with snow/sleet falling	days	5	4	0	0	0	0	0	0	0	0	1	0	10
Number of days with 50% ground snow cover at 0900GMT	days	1	2	0	0	0	0	0	0	0	0	0	0	3
Number of days with thunder	days	1	0	0	0	0	1	0	0	0	1	0	1	4
Number of days with ice pellets/small hail	days	0	3	0	0	0	0	0	0	0	0	1	0	4
Number of days with hail over 5mm diameter	days	1	0	1	0	1	0	0	0	0	0	0	0	3
Number of days with fog at 0900GMT	days	2	0	1	0	0	0	0	0	1	1	2	0	7

		J	F	M	A	M	J	J	A	S	O	N	D	2015
Total sunshine	h	67.6	79.9	142.8	225.9	210.1	241.5	205.0	148.0	159.3	88.2	18.4	32.3	1619.0
Percentage of average sunshine	%	120	105	131	141	112	128	104	77	115	83	29	70	106
Greatest daily sunshine total	h	6.3	9.2	9.7	13.4	13.7	14.1	14.0	11.9	10.7	9.8	3.8	4.7	14.1
Date		19	18	22	21	13	7	9	2	6,7,10	1	21	23	
Number of sunless days	days	7	7	2	2	3	0	2	3	1	11	17	15	70
Mean 10cm soil temperature	°C	3.7	2.8	5.4	10.0	13.3	16.9	18.4	17.2	12.9	10.7	9.3	9.1	10.8
Mean 30cm soil temperature	°C	5.4	4.7	7.0	10.5	12.7	15.6	17.7	17.1	14.9	12.6	11.2	10.3	11.6
Mean 100cm soil temperature	°C	7.3	6.1	7.3	9.8	11.7	13.8	16.0	16.1	15.3	13.6	12.4	11.1	11.7

		J	F	M	A	M	J	J	A	S	O	N	D	2015
Number of days with gale	days	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of days with N'ly winds	days	2	2	4	2	1	0	0	3	2	7	0	0	23
Number of days with NE'ly winds	days	1	6	6	8	1	3	1	5	6	5	0	0	42
Number of days with E'ly winds	days	1	0	1	2	4	3	2	2	6	3	2	2	28
Number of days with SE'ly winds	days	1	0	3	0	0	1	4	0	1	3	1	2	16
Number of days with S'ly winds	days	0	4	0	0	1	1	1	8	1	4	6	12	38
Number of days with SW'ly winds	days	8	5	6	4	11	10	12	9	4	2	15	15	101
Number of days with W'ly winds	days	13	6	7	4	9	7	7	3	7	5	3	0	71
Number of days with NW'ly winds	days	3	3	4	9	4	5	4	1	3	1	3	0	40
Number of days with calm winds at 0900GMT	days	2	2	0	1	0	0	0	0	0	1	0	0	6