

The Reading Naturalist

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THE READING NATURALIST

No 67 for the year 2014

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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 and Ricki 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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PRESIDENTIAL MUSINGS

To bee or not to bee?

MICHAEL KEITH-LUCAS

In recent years I have found myself giving numerous talks to beekeepers and sometimes attending their annual conferences, at which one learns a lot from other speakers about what is going on in the bee world. This has led me into the debate about what is causing the decline seen with both our honeybees and wild bees. On top of this I have been involved with a project on pollination by bumblebees of conventional versus organic crops, which has brought me up against some of the same problems.

So, are all our bees affected? There has been a decline of some 54% in honeybees over the period 1985-2005, continuing to the present day, and about 52% in solitary bees over the same period. Three species of bumblebee are thought to have become extinct, though one new one has arrived. Some, such as the Red Mason Bee, *Osmia rufa*, have suffered particularly badly, whereas others seem to have been largely unaffected. The significance of this is the degree to which we depend on bees, not just for honey, but for their pollination services. 84.6% of crops need bees as pollinators, and solitary bees carry out two thirds of the pollination of these crops. The cause of this decline in Europe is probably not the same as Colony Collapse Disorder (CCD) which is rampant in North America, but is the result of many factors affecting much of Northern Europe. Taking these in turn, these are some of the most important factors:

Disease.

I include here the spread of Varroa mite, introduced into Britain some twenty odd years ago which is thought to have caused the virtual extinction of feral honeybees and devastated many hives. Some wild bees are capable of ridding themselves of Varroa, but honeybees are susceptible. Other diseases such as Nosema fungus, a gut parasite, and viruses carried by Varroa may well be also to blame. Foulbrood, both the European and American strains, is another serious disease and passes through honey and faeces and is incurable.

Pesticides.

Most implicated are the neonicotinoids, systemic insecticides which act as nerve poisons. Experiments in which they have been fed to bees show that they become disorientated and cannot find their way back to the hive. In higher concentrations they cause death. Now banned in France, Germany and Italy, there is to be a two year moratorium on their use in this country. However they will still be in many garden products and the ban will only be on agricultural use. Herbicides affect flower availability in the countryside, and appear to have been an important factor in my bumblebee trials – the conventional crops leading to the bees having to travel great distances to gardens after the conventional crops had finished flowering, but being able to stay in the fields after the organic crops had finished flowering, because of the abundance of weeds.

Changes in agriculture.

The mechanisation of agriculture has led to the ripping out of hedges, and the planting of large areas of monocultures. After these have finished flowering, unless there are strips around the fields which have been left for wildlife, the countryside can effectively become a desert as far as bees are concerned. Most suburban areas and even denser urban areas are now more bee-friendly than our countryside, as people try to grow flowers that will give a show all the year round. The use of genetically modified crops into which pesticide or herbicide resistance genes have been engineered is only likely to make the situation worse, as this implies that they will continue to be used with the same results as I have outlined in the previous section.

Climate change.

There has been a tendency to milder winters, so that honeybees may emerge from their hives before there is much forage around. Dry summers mean that bees have to collect water when they might otherwise collect nectar, and fewer plants will remain in flower. Increasing rainfall in the north-west may be one of the factors that has led to the loss of some bumblebees, along with a tendency to greater extremes such as storminess. A violent storm can lead to the death of many different bees if they happen to get caught out in it.

Inbreeding.

Most beekeepers get new queens from Italy, and these have a very narrow genetic base and it may be difficult for the bees to adapt to climate change or disease. The discovery of feral native black honeybees in Cornwall may help in breeding a greater genetic diversity into our honeybees, and help them to survive in the longer term.

Loss of knowledge or plain ignorance.

This is particularly a problem with some of our solitary bees. For instance, most large estates in the past used to have walled gardens in which the walls had soft lime mortar in which Red Mason Bees nested. They would come out from their holes to find fruit trees trained against the walls, so one got excellent pollination. So often these days one finds these walls pointed with hard cement with the loss of the bees and the crop. Lawns are often paved over these days, with the loss of our Lawn Bees (*Andrena armata*) which are important pollinators in the spring. Lack of mowing in orchards means that dandelions flourish, the bees are attracted off the fruit blossom, and, again, a poorer crop results. Previous generations seem to have known much of this, but the knowledge seems to have been lost.

So, in summary, the decline may be the result of many different factors, and is unlikely to be the result of one alone. Also different species of bee seem to be affected by different factors, so there is probably not one universal cause. Although some, such as pesticides might affect all species, I would be surprised if their ban remedied the situation, as the quantities used in the tests are higher than the bees are likely to pick up in the nectar. What is needed is that we keep an open mind and conduct relevant research.

MEMBERSHIP

Norman Hall, Ian Duddle

Membership figures as they stand at the end of December 2014

Single members	93
Family/Couples	68
Total	161

of which there were 28 new members or members renewing their subscription after a break:

Mrs Kathryn Summers	Mrs Jude & Mr Bruce Ingleby	Mr Oli Pescott
Mr Mike Howes	Richard Stansfield & Pol Kellett	Mr Paul Black
Joanne Alley	Alan Parfitt	Marianne Pryor
Lucinda Matthews	Mr Ismail Hazari	Stan Kujawa
Mr David J. White	Mrs Marion Venners	Ms Sophie Anderson
Mr David Morris	Mr Brian Waite	Mrs Ruth Jaggi
Iona McKenzie	Wendy Hemmings	Mr D Skyrme
Ms Cathy Harris	Mr George Noble	Susan Trice
Miss Fiona Brown	Tony Myerson	

MEMBERS' OBSERVATIONS

Ricki Bull and Julia Cooper

7 Jan

Renée Grayer – flock of Redwings in garden.
Cath Butcher – Blackbird pecking at large fungi in garden (possibly for maggots).
Jan Haseler – new green leaves on Honeysuckle and Elder.
Avril Davis – Redwings with Goldfinches on Sunday.
Ricki Bull – flock of 20 Redwings remained for a week in garden, joined on one day by another 30.

21 Jan

Tony Rayner – In a field on Streatley Down (21.1.2014) 5 Red Kites, 1 Raven, 11 buzzards at the same time.
Dick Croker – large white-tailed Bumblebee on Daisies in Tilehurst Village.
Martin Woolner – Horse Chestnuts in flower in Maidenhead.
Jan Haseler – Stinking Hellebore in flower at Streatley.

4 Feb

Jan and Jerry Welsh – Skylark singing at Binfield; Hogweed in flower.
Roger Frankum – pair of Goldeneye and pair of Goosander at Theale Gravel Pits.

18 Feb

Meryl Beek – Bumblebee on Stinking Hellebore today in the garden.
Sheelagh Hill – Brimstone Sunday in Woodcote.

4 March

Meryl Beek – Red Admiral in garden.
Norman Hall – last week 26 Common Quakers in moth trap.
Julia Cooper – Comma overwintering in shed flew out on Sunday.
Chris Ash – 3 Redpolls on feeder Binfield Heath.
Roger Frankum – Blackbird at Bucklebury with long down-curved bill.

7 Oct

Tony Rayner – All the Hirundinidae family left early this year.
By 29th July there were no swifts and there were no house martins in August.
The second brood of swallows failed this year.

21 Oct

Tony Rayner – Clouded Yellow butterfly yesterday and also one 10 days ago.
Alan Parfitt – many Clouded Yellows recently, but not in the Reading area.
Dick Croker – Speckled Wood, Comma, Peacock and Brimstone in Basildon Park last week.
Jan Haseler – Wolf's Milk slime mould on dead logs on a Fungus Foray.

4 Nov

Tony Rayner - Painted Lady butterfly on the hill at Gatehampton (near Goring) today.
For 3 days 31/10 - 2/11 a Black Redstart on a roof in his garden at Cholsey - second record for Oxfordshire.
Michael Keith-Lucas - Red Admiral butterfly in his garden (Reading) in November. A distinctive white headed Blackbird seen in his garden last winter has returned.
Meryl Beek - Red Admiral in her garden (Caversham) yesterday.
Grahame Hawker - 3 Red Admirals in Earley today, all flying due south.
Roger Frankum - Jays have been flying more than usual - may be an influx or increased movement.
Kit Brownlee - Gallant Soldier flowering at High Bridge, Reading.
Andrew Bolton - Common Darter dragonfly in his garden (Baughurst) on Sunday (2/11).

18 Nov

Martin Sell – A fortnight ago saw flock of Tits and a male and female Blackcap in garden.
Ian Duddle – Goldcrest in garden on Monday 10th.
Jan Haseler – Saw a bat in garden a week ago.
Tony Rayner – On drive to Scotland 14th November, saw along the hard shoulder of the M6 a series of Buzzards on posts drying their wings.
Bron Towner – Grey Wagtail seen in garden in Tilehurst.
Roger Frankum – Great White Egret at Lower Farm, Thatcham on 12th
Renée Grayer – Sparrowhawk taking interest in visitors to her bird feeder.
Dick Croker – On 16th saw Red Admiral butterfly.

2 Dec

Bron Towner – 6 Collared Doves in garden (Tilehurst) last week.
Avril Davies – Large flock of Redwings at Harpsden churchyard last Tuesday, stripping the yew berries.
Ian Duddle – 100 – 150 Lapwings near Searles Farm and male Blackcap in garden.
Roger Frankum – 3 Chiffchaffs at Woolhampton and a Green Sandpiper at Thatcham.
Brimstone butterfly at College Lake on Sunday 30/11.
Ken Palmer – Heron in garden (pond) Whitley several times in last few weeks.

EXCURSIONS

Jan Haseler

Saturday 18 January

The first field trip of 2014 was led by Ken White, a bird walk at Pagham in West Sussex. It was a mild, breezy and dry day, following weeks of heavy rain. Nine members gathered near the church, where there were three Common Buzzards *Buteo buteo* disputing airspace, a good-sized flock of House Sparrows *Passer domesticus* in the nearby hedge and a Fox *Vulpes vulpes* in the next field. First stop was the sluice gate next to the North Wall of the harbour. The incoming tide was rising fast. On the remaining exposed harbour mud were Redshank *Tringa totanus*, Curlew *Numenius arquata*, Lapwing *Vanellus vanellus* and Golden Plover *Pluvialis apricaria*, together with Teal *Anas crecca*, Wigeon *Anas penelope* and a solitary Little Egret *Egretta garzetta*. Large chuckling flocks of Dark-bellied Brent Geese *Branta bernicla* subsp. *bernicla* flew between the flooded fields and the harbour. A few Pintail *Anas acuta* were spotted further out, half-hidden beside a channel through the mud-flats. A huge group of waders flew up into the air, then sorted themselves into separate flocks of Lapwing and Golden Plover. The smaller and faster Golden Plover flew higher than the Lapwing and began to organise themselves into V-shaped skeins. As the Golden Plover flock twisted in the sunlight, the birds sparkled first white then golden. The cause of the disturbance was a Peregrine *Falco peregrinus*, which raced across the sky underneath the panicking flocks. The spire of Chichester Cathedral, where Peregrines have been breeding in recent years, could be seen in the distance – was it a local bird or a winter visitor? In the flooded fields on the landward side of the sea wall were good numbers of Wigeon, Teal, Shelduck *Tadorna tadorna*, Brent Geese and Curlew. The male Teal were displaying, stretching their heads upwards and flashing their emerald green speculums. In one of the fields, two hunched-up Grey Herons *Ardea cinerea* appeared to be sheltering from the wind behind the hedge. Continuing along the sea wall, a number of Black-tailed Godwits *Limosa limosa*, including two colour-ringed Icelandic birds, were in the next flooded field. In the field beyond were a big flock of Stock Dove *Columba oenas* and several Roe Deer *Capreolus capreolus*. On the walk back, a pair of Stonechats *Saxicola torquata* were watched as they perched on a fence and dropped down into the grass to feed.

After lunch, the group set out again, this time towards the lagoon and harbour entrance. New flowers were just beginning to emerge on the suckering Elms *Ulmus* sp. beside the footpath and there were a number of big Tree-mallow *Malva arborea* plants. On the lagoon were a surprising number of Mediterranean Gulls *Larus melanocephalus*, mostly adults, smallish gulls with all-white wings, a pair of Goldeneye *Bucephala clangula* and a large collection of Little Grebes *Tachybaptus ruficollis*. The route then continued along the beach to the hide which overlooks the entrance to the harbour. A Red-breasted Merganser *Mergus serrator* was resting in the harbour, not far from the shore. Fresh green leaves of Spring Beauty *Claytonia perfoliata* lined the edge of the path in places. Waders and gulls packed the last remaining islands in the harbour as the high tide reached its peak. A large flock of about 200 Grey Plovers *Pluvialis squatarola* wheeled in flight, showing the black axillaries under their wings. As the tide began to drop, waders, including Dunlin *Calidris alpina* and Knot *C. canutus*, moved onto the first spits to emerge from the water. At the top of the spit were big Great Black-backed Gulls *Larus marinus*, dwarfing the smaller Common *L. canus*, Black-headed *Chroicocephalus ridibundus* and Mediterranean Gulls. The lagoon was rechecked on the return walk and the group were rewarded with excellent views of a Slavonian Grebe *Podiceps auritus*, with the sharp line between the black cap and the white cheeks clearly visible through the telescopes. Finally, there was a brief visit to Thorney Island on the journey home, for an unsuccessful hunt for dusk-flying Short-eared Owls *Asio flammeus* on the rough grassland next to the military base, but the rewards were the first Canada Geese *Branta canadensis* of the day, singing Dunnock *Prunella modularis* and Little Egrets going to roost. The final bird species tally was 58, but it was the birds in their swirling thousands that stole the day.

Saturday 8 February

Lesley Dunlop led a geology walk at Bradfield, starting from the Black Barn at Rushall Manor Farm. Following two months of heavy rain, there were flood alerts on many of the local rivers and the resulting road closures had made the journey to Bradfield challenging for some of the 10 attendees. Before starting out on the walk, the group looked across the bright green fields on the Chalk, laid down about 85 million years ago, to the woods on the other side of the River Pang, which are on the Reading Beds of sands and clays and were laid down about 60 million years ago. The walk started out up through Rushall Copse on the Reading Beds. The recent heavy rain helped to emphasise the different layers. Springs formed at the bottom of the sandy layers and rapidly turned into fast-flowing streams as they cut their way down through gulleys in the clay. At the edge of the wood, a significant stream ended in a pool with no obvious exit. The water vanished down a hidden sinkhole, leaving no trace on the chalk field below the wood. Continuing up the track through the woods, there were still waxy red berries on a Guelder-rose *Viburnum opulus* bush. Leaf rosettes of Primroses *Primula vulgaris* and new leaf spikes of Bluebells *Hyacinthoides non-scripta* were well developed, and Wood Spurge *Euphorbia amygdaloides* and Bugle *Ajuga reptans* were noted. The track climbed up to the London Clay layer at the top of the woods, which was laid down about 50 million years ago. The clays of the Reading Beds are redder and contain more iron than the London Clay. The London Clay was deposited in a marine environment, while the Reading Beds were laid down in estuarine conditions.

The route then crossed Scratchface Lane and followed a footpath across a sticky field on the London Clay. It entered a section of wood called The Gravels, and almost immediately became drier underfoot, with Bracken *Pteridium aquilinum* growing at the side of the path. The gravel layer would have been laid down about 500,000 years ago by outwash from ice sheets to the north. Holes, plus a latrine at the side of the track, indicated recent Badger *Meles meles* activity. Tall green clumps of Scaly Male Fern *Dryopteris affinis* in the woods beside the track marked the move back onto the London Clay. Woodruff *Galium odoratum* appeared at the side of the track soon after it dropped back down onto the Reading Beds. Lesley's eagle eye picked out a quartz pebble amongst the flint gravel on the bank at the side of the track. It would have come originally from the volcanic rocks of Cornwall or Brittany, formed 295 million years ago, before being carried to the Bunter Beds in the Midlands. From there, it would have been brought by glacial outwash to its current location. Bright green leaves of Wood-sorrel *Oxalis acetosella* were seen on a sandy layer of the Reading Beds in the appropriately-named Sorrel Copse. The route then led out of the woods and crossed the edge of an arable field, before dropping down to the Owl Pit chalk quarry. The exposed face of the quarry has a thick white chalk layer at the bottom. The top of the chalk was eroded for about 30 million years, before being covered by a thin dark layer containing the mineral Glauconite, which was laid down in a marine environment. Above are thick orange layers of sand and thinner grey layers of clay from the Reading Beds.

Saturday 8 March

The moss-walk at Watlington Hill was very well attended, with 18 members, some beginners, some more expert, enjoying the beautiful weather and wonderful scenery. Sean O'Leary, who led the walk, started with an introduction to the life cycle of bryophytes and demonstrated the difference between the two major moss groups, acrocarps and pleurocarps. A number of interesting epiphytic species (those which grow on trees) were found on an old cherry tree in the car park, including *Orthotrichum lyellii* and the liverwort *Metzgeria furcata*. The walk continued onto the open chalk grassland, with typical species such as *Barbula unguiculata*, *Rhytidiadelphus triquetrus*, *R. squarrosus* and *Scleropodium purum*, mingled with some fine examples of *Ditrichum gracile* and *Trichostomum crispulum*. The blue sky, magnificent views and Red Kites *Milvus milvus* wheeling overhead made a delightful scene for those gazing aloft, equal to that viewed by the keener bryologists with eyes glued to the ground. A few of the Hairy Violets *Viola hirta* in the short turf were already in flower. Turning downhill across steeper grassy slopes, the route led into old Yew *Taxus baccata* woodland. On the wood edges and paths grew *Kindbergia praelonga* in abundance, *Thuidium tamariscinum*, *Bryoerythrophyllum recurvirostrum* and *Fissidens taxifolius*. An old bonfire site had a fine population of *Funaria hygrometrica*. Back at the car park, the group were treated to pieces of Louise's legendary muesli slice.

Saturday 12 April

Renée Grayer led a walk at Maiden Erlegh local nature reserve which was attended by 18 members. While she was outlining the history of the area, a Sparrowhawk *Accipiter nisus* flew overhead. A number of native wildflowers have been planted around the reserve, but it was thought that the Keeled-fruited Cornsalad *Valerianella carinata*, with tiny blue flowers, had arrived naturally in the flower bed at the entrance to the Interpretation Centre. The walk started out through Old Pond Copse, the strip of woodland in the valley of the stream which flows out below Maiden Erlegh Lake. The rich ground flora indicates that this is ancient woodland and flowers included Bluebells, Primroses, Early Dog-violets *Viola reichenbachiana* and Common Dog-violets *V. riviniana*, Wood Speedwell *Veronica montana*, Three-nerved Sandwort *Moehringia trinervia*, Wood Spurge, Wood Anemones *Anemone nemorosa* and Wood-sorrel. The small yellow flowers of Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* were found in the wetter parts of the wood. Down by the stream were tall plants of Pendulous Sedge *Carex pendula* and bright green clumps of Hemlock Water-dropwort *Oenanthe crocata*. A young Common Frog *Rana temporaria* was found up on the slopes of the wood. It was noted that the central spadix had been completely eaten away on a significant proportion of the Lords-and-Ladies *Arum maculatum* plants. There were yellowish flowers on the Field Maple *Acer campestre* trees. Chiffchaffs *Phylloscopus collybita* called and the rich song of a single Blackcap *Sylvia atricapilla* was heard. The group returned to the lake, then walked through Oak Wood, where the leaves were just coming out on a clump of Wild Service-trees *Sorbus torminalis*. On one of the islands on the lake was the impressive carved sculpture entitled 'The Duck and the World'.

Sunday 27 April

Michael Keith-Lucas led 24 members on a circular walk round the woods at the National Trust's Greys Court at Rotherfield Greys. The Bluebells were at their best and large parts of the woods were carpeted in blue. Close to the start of the walk was a flowering Horse-chestnut tree *Aesculus hippocastanum*. Michael pointed out that what look from a distance like white flowers actually also have coloured spots, which are yellow for flowers which have not yet been pollinated and red for pollinated flowers. Bees only visit the flowers with yellow spots. The walk continued up to the woods on the top of the ridge, where the new leaves on the Beech *Fagus sylvatica* trees were bright green. Michael explained how the underlying geology can be read from the vegetation beneath the Beech trees: Dog's Mercury *Mercurialis perennis* on alkaline soil, Bramble *Rubus fruticosus* and Holly *Ilex aquifolium* on neutral to mildly acid soil, as was the case here on Clay with Flints, and bare soil in more strongly acid conditions. The male flowers of Beech trees are very susceptible to frost and in our area, Beech mast is produced on average only about once every five years. 2013 must have been a good mast year, because new Beech seedlings were plentiful in the shadier parts of the wood. In contrast, the Ash *Fraxinus excelsior* seedlings were doing best in the lighter areas. In the woods were both large pits, from which flints or chalk had been extracted, and smaller pits, marking the root-plates of fallen trees. Beside the path were tufts of Southern Wood-rush *Luzula forsteri* and Compact Rush *Juncus conglomeratus*. Michael showed how the leaves of Wood Millet *Milium effusum* turn over at the base, exposing the stomata on the top surface. This enhances evaporation and increases the flow of water and nutrients through the plant - a strategy which would be too risky in a sunnier location. Clumps of Goldilocks Buttercup *Ranunculus auricomus*, with sparse petals, were also seen.

The path began to drop down the side of the dry valley and Michael pointed out the geological boundary as the Holly and Brambles came to an abrupt halt and Dog's Mercury began, marking out the transition onto the Chalk. The Dog's Mercury plants spread by underground rhizomes, so they are found in clumps of genetically-identical individuals. The male plants have brighter green and narrower leaves and tend to grow in lighter areas close to the path. The female plants have broader, darker blue-green leaves and tend to grow in shadier places. Other base-loving plants on the chalk included Traveller's-joy *Clematis vitalba* and Spurge-laurel *Daphne laureola*. Yellow Archangel *Lamiasstrum galeobdolon*, Bush Vetch *Vicia sepium* and Wild Strawberry *Fragaria vesca* were amongst the flowers seen as the path continued along the side of the valley. An Orange-tip

Anthocharis cardamines butterfly was roosting with closed wings on a Bluebell flower, showing the dappled yellow-green markings on its underside.

Tuesday 6 May

John Lerpiniere led an evening walk at Hosehill Local Nature Reserve near Theale. While the group of 7 members were gathering, a Sand Martin *Riparia riparia* flew over the lake, then a Sparrowhawk flew over and was mobbed by Black-headed Gulls. The walk started out from the north side of the lake. A series of Song Thrushes *Turdus philomelos* sang loudly in the background throughout the evening. At the first bend, a big brown Common Cockchafer *Melolontha melolontha* beetle was spotted in the hedge at the side of the path. The blossom was fully out on the Hawthorns *Crataegus monogyna* of the reserve. A Grey Heron flew over and was also mobbed by the gulls. A single Reed Warbler *Acrocephalus scirpaceus* was heard, together with a few Blackcaps and Garden Warblers *Sylvia borin*. The group paused to look at the artificial Sand Martin bank. A small bird was flying in and out of one of the holes and, on closer inspection, turned out to be a Blue Tit *Cyanistes caeruleus*. The walk continued round to the south side of the reserve. Two Nightingales *Luscinia megarhynchos* were singing loudly in dense vegetation at the side of the path, then a little further on, a third bird was heard. A number of squares of roofing felt have been put down to provide refuges for snakes and small mammals. Several of these were sheltering small greyish-brown Field Voles *Microtus agrestis* and one had a young family. In an area known as the Butterfly Bank, distinctive sprays of hard white seeds marked a Common Gromwell *Lithospermum officinale* plant and a few more plants were found coming up nearby in a patch where scrub had been cleared last winter.

Yellow-rattle *Rhinanthus minor* was thriving in the meadow on the eastern side of the reserve. The Exmoor ponies from Greenham Common are brought to graze the meadow in the autumn and their hooves help to press the Yellow-rattle seeds into the ground. Also in flower were yellow Crosswort *Cruciata laevipes* and Cowslips *Primula veris*. There are more refuges in the meadow area and one was sheltering a Bank Vole *Clethrionomys glareolus* family. The mother was larger and more ginger-coloured than the Field Voles. Hemlock Water-dropwort is increasing around the reserve, including in the meadow, possibly as a result of the prolonged flooding last winter. Continuing round the lake, a Great Crested Grebe *Podiceps cristatus* swam with head down, neck extended forwards and raised feathers on its back. Then another pair of grebes swam into view, also in the same posture – it appeared to be a territorial dispute. From deep in the reeds nearby came the explosive burst of song of a Cetti's Warbler *Cettia cetti*. The final section of the walk was across the road on the edge of Main Pit. Deep in the dense scrubby vegetation around the base of the pylon, perhaps 6 Nightingales were singing loudly. Then as the group walked back in the gathering darkness, an Oystercatcher *Haematopus ostralegus* flew overhead, calling loudly.

Sunday 25 May

Graham Saunders led a walk, attended by 22 members, at Ron Ward's Meadow, Tadley (a permit-only reserve of the Hampshire and Isle of Wight Wildlife Trust) on a sunny afternoon. The meadow slopes gently downwards, with the wetter parts towards the bottom coloured a darker, duller green by sedges and rushes. From the top of the reserve, there is a distant view southwards towards the Hampshire Downs. The meadow was full of flowers and alive with insects. On the drier slopes, flowers included Oxeye Daisy *Leucanthemum vulgare*, Meadow Buttercup *Ranunculus acris*, Yellow-rattle, Common Bird's-foot-trefoil *Lotus corniculatus*, Common Vetch *Vicia sativa* and Red Clover *Trifolium pratense* and there were many Common Blue *Polyommatus icarus* butterflies. Some of the Oxeye Daisies had clusters of tiny micro-moths on their yellow centres. Dropping down onto the damper parts of the meadow, the vegetation changed and the flowers included Marsh Thistle *Cirsium palustre*, Cuckooflower *Cardamine pratensis*, Ragged-Robin *Lychnis flos-cuculi*, Tormentil *Potentilla erecta*, Narrow-leaved Vetch *Vicia sativa* subsp. *nigra* and Lousewort *Pedicularis sylvatica*. Insects included a Small Copper *Lycaena phlaeas* butterfly, plus Mother Shipton *Callistege mi*, Burnet Companion *Euclidia glyphica* and Straw Dot *Rivula sericealis* moths. Heath Spotted-orchids *Dactylorhiza maculata* were seen right across the reserve, dotted across the drier parts, but in vast swarms in the damper sections. The many different sedges posed a challenge to the botanists. Varieties identified included Oval Sedge *Carex ovalis*, Common Yellow-

sedge *C. viridula* subsp. *oedocarp* and Hairy Sedge *C. hirta*. Several Common Frogs and a Roe Deer were also seen.

Sunday 1 June

The annual coach trip, attended by 29 members, was to Porton Down near Salisbury. Stuart Corbett, the Conservation Officer of Dstl Porton Down, kindly gave up his Sunday to escort members round the site on a lovely warm sunny day. On the way to the first stopping point, a small herd of Fallow Deer *Dama dama* raced across the road in front of the coach. The group emerged onto superb chalk grassland, with Fragrant-orchids *Gymnadenia conopsea*, Common Spotted-orchids *Dactylorhiza fuchsii*, Yellow-wort *Blackstonia perfoliata*, Horseshoe Vetch *Hippocrepis comosa*, Common Milkwort *Polygala vulgaris* and Chalk Milkwort *P. calcarea*. Butterflies included Dingy Skipper *Erynnis tages*, Grizzled Skipper *Pyrgus malvae*, Common Blue and Brown Argus *Aricia agestis*. Looking back along the road, a Peregrine was perched on top of a tall target building. After a brief pause to enjoy the richness of the flowers and insects, the party headed down a side track into the woods. Flowering White Helleborines *Cephalanthera damasonium*, Bird's-nest Orchids *Neottia nidus-avis* and the leaves of Broad-leaved Helleborines *Epipactis helleborine* were amongst the finds here. A female Brimstone *Gonepteryx rhamni* was watched as she laid an egg on a Buckthorn *Rhamnus cathartica* leaf. A sheltered area of rich chalk grassland opened up on one side of the track and proved to be a particularly productive site for insect sightings. Tiny metallic green Forester moths of some variety, probably Cistus Forester *Adscita geryon*, were seen in good numbers. There were many Burnet moths with 5 spots. The conjoined spots on a few individuals and the early date indicated that they may have been Five-spot Burnet, *Zygaena trifolii* ssp. *palustrella*, a subspecies found on chalk, rather than the generally commoner Narrow-bordered Five-spot Burnet *Zygaena lonicerae*. A cream pyralid moth which initially puzzled the experts was later identified as *Paratalanta pandalis*. Also seen were striking Wood Tiger *Parasemia plantaginis* moths, tiny Small Purple-barred *Phytometra viridaria* moths and Green Hairstreak *Callophrys rubi* butterflies. There were many small Summer Chafer *Amphimallon solstitialis* beetles, which according to Stuart, form an important component of the Stone Curlew *Burhinus oedicephalus* diet. The walk continued along the track, back into open scrubby woodland. Stinking Hellebore *Helleborus foetidus*, Greater Butterfly-orchid *Platanthera chlorantha* and Deadly Nightshade *Atropa belladonna* were amongst the finds here. Turning aside into a clearing with abundant Primrose plants, several Duke of Burgundy *Hamearis lucina* butterflies were an exciting find. Porton Down is a stronghold for this increasingly rare butterfly. On the return walk, two slightly worn Pearl-bordered Fritillary *Boloria euphrosyne* butterflies flew along the track.

After a picnic lunch near the coach, the group continued along the road which ran along the top of the ridge. Stuart stopped next to a female Juniper *Juniperus communis* bush to outline the recent history of Juniper at Porton Down. There has been no significant regeneration since myxomatosis reduced the Rabbit *Oryctolagus cuniculus* population and the youngest bushes are nearly 50 years old now. The valley below, known as 'The Brecks', used to be covered in lichen, but is slowly reverting to grassland. It was once ploughed, using 2 traction engines and a steel cable to drag a plough to and fro. Although crops were grown for a short while, the soil was too poor for sustained arable farming. The farmer then bred Rabbits for a while, which further depleted the soil and allowed the lichens to become dominant. Two Foxes were seen in the distance. A sharp-eyed member of the group spotted a Stone Curlew on the short turf of the valley below. Then a second Stone Curlew was spotted nearby. Continuing along the track, there were many ant-hills, covered in plants such as Wild Thyme *Thymus polytrichus*, Heath Speedwell *Veronica officinalis* and Common Rock-rose *Helianthemum nummularium*. An Oblique-striped *Phibalapteryx virgata* moth was another chalk downland speciality. The route then led into woodland, with abundant Common Twayblades *Listera ovata* and Common Spotted-orchids beside the path. Down a side path was a stunning Lady Orchid *Orchis purpurea* in full flower, with a number of leaf rosettes of smaller plants nearby. A flowering Common Spotted-orchid was an unexpected sighting above head-height in the fork of an adjacent Beech tree.

Sunday 15 June

Cleeve Water Meadows, near Streatley, are privately owned by Charlotte Turner. The management work being undertaken here is intended to restore the field to a water meadow, rich in wildflower species such as the Loddon Lily *Leucojum aestivum*, Cuckooflower, Ragged Robin and Water Mint *Mentha aquatica*. Records show that the meadow used to be rich in wildflowers, but for a number of years it was not possible to carry out the work necessary to maintain it. Now, with the help of local conservation volunteers, together with funding from a Natural England Higher Level Stewardship agreement, the meadow is being brought back into the management regime needed to ensure its long-term future. Charlotte kindly invited members from Reading and District Natural History Society, on a visit organised by Sheelagh Hill, to carry out a brief survey of the flora and fauna of the meadows. Although the findings were in no way comprehensive, it was encouraging to see a variety of the water meadow species returning. The most unusual discovery was Greater Dodder *Cuscuta europaea*, in this case parasitic on nettles. It is found mostly in South East England and is categorised as rare. It favours wet areas and grows alongside watercourses. Some of the other plants are less unusual, but are typical of water meadow habitats. They included Common Valerian *Valeriana officinalis*, Marsh Woundwort *Stachys palustris*, Common Meadow-rue *Thalictrum flavum*, Celery-leaved Buttercup *Ranunculus sceleratus*, Water Forget-me-not *Myosotis scorpioides*, Marsh Speedwell *Veronica scutellata*, Water Figwort *Scrophularia auriculata*, Fen Bedstraw *Galium uliginosum* and Marsh Yellow-cress *Rorippa palustris*. A Snakefly was an interesting sighting. This insect has an unusually long neck, which it can move like a snake. It is predatory, both as a larva and as an adult, on caterpillars and smaller insects.

Sunday 29 June

Sarah White led a walk at Ladle Hill near Kingsclere. The walk started from the crest of the ridge where the Wayfarer's Walk crosses the Sydmonton to Ashley Warren road. While 15 members were gathering at the start, a Dunnock *Prunella modularis* sang from a perch on top of oil-seed rape and a number of Small Tortoiseshell *Aglais urticae* butterflies flew across the road. The walk started out westwards along the Wayfarer's Walk. Plants in the margin next to an oil-seed rape field included Welled Thistle *Carduus crispus*, Common Poppy *Papaver rhoeas* (with smooth semi-circular seed capsules) and the first of the day's rare poppies – Long-headed Poppy *P. dubium* with smooth, long seed capsules. Ringlet *Aphantopus hyperantus*, Meadow Brown *Maniola jurtina*, Red Admiral *Vanessa atalanta* and Large Skipper *Ochlodes sylvanus* butterflies were added to the species tally, Sky Larks *Alauda arvensis* sang continuously in the background and a Yellowhammer *Emberiza citrinella* was heard. The route continued through a barley field. A Corn Bunting *Miliaria calandra* was perched on top of an isolated tree, and its 'jangling keys' song was heard. From deep in the field came a fleeting burst of the 'Wet-my-lips' call of a Quail *Coturnix coturnix*. The second of the day's rare poppies was found in the field margin – Prickly Poppy *Papaver argemone* with long, bristly seed capsules. Field Madder *Sherardia arvensis* was also seen here. At the top of the hill was a fallow area with a tangle of Hogweed *Heracleum sphondylium* and other plants around a dew pond. There were many insects on the Hogweed flowers and another Corn Bunting was singing from deep in the vegetation. Marbled White *Melanargia galathea* butterflies were seen here and the green caterpillar of a Dusky Sallow *Eremobia ochroleuca* moth was found nearby. There was a brief diversion past the entrance to Ladle Hill to see the third of the rare poppies – Rough Poppy *Papaver hybridum* with round, bristly seed capsules.

The group then returned to Ladle Hill, an incomplete Iron Age Hill fort, and walked along the top of the ramparts. The flora was very rich, with Wild Thyme, Small Scabious *Scabiosa columbaria*, Common Rock-rose, Squinancywort *Asperula cynanchica*, Common Quaking-grass *Briza media*, Eyebright *Euphrasia* sp., Common Milkwort, Fairy Flax *Linum catharticum*, Hoary Plantain *Plantago media*, Pyramidal Orchids *Anacamptis pyramidalis* and Fragrant-orchids. Meadow Pipits *Anthus pratensis* were singing in the background and a Buzzard was hanging in the air, facing into the breeze. On the steepest south-facing slope, there were good numbers of tiny Burnt Orchids *Neotinea ustulata* of the rarer summer-flowering variety. The party stopped for a picnic at the west-facing slope. Swallows *Hirundo rustica* flew past and a few Swifts *Apus apus* were seen. Continuing round the ramparts, about 3 or 4 tiny and very insignificant Frog Orchids *Coeloglossum*

viride were spotted by sharp-eyed members of the group. On the return walk, the Corn Bunting was back on its isolated tree. Towards the end of the walk, a humming noise alerted the group to a large numbers of bees which appeared to be swarming high up on an ivy-covered oak tree.

Weekend 19/20 July

Norman Hall organised the annual moth-trapping night on at Hartslock near Goring, a reserve of the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT). It was a hot, still, sultry evening with the black clouds of thunderstorms visible away to the south east, but fortunately no rain fell at Hartslock. Norman arrived armed with gloves and secateurs, which he used to cut back some of the encroaching vegetation along the approach track. The entrance field was a sea of blue - the dark blue of Clustered Bellflower *Campanula glomerata* and the lighter blue of Small Scabious. Norman ran a mercury vapour (MV) light over a sheet at the highest point of the entrance field, plus Robinson traps lower down the slope on both sides of the hill and another at the bottom of the orchid field. Jan and Laurie Haseler set up their lights at the very top of the reserve - a MV light over a sheet at the entrance to the field beyond the orchid bank, and a Robinson trap in the adjacent woodland of Beech and Yew. Volunteer Reserve Warden Chris Raper nobly carried the generator up the very steep hillside to the trapping location. As dusk fell, the first moth to fly in to Norman's sheet was the tiny orange-brown Festoon *Apoda limacodes*. Not long afterwards, an enormous Privet Hawkmoth *Sphinx ligustri* appeared. After some difficulty locating the reserve in the dark, Paul Black arrived and set up two more lights at the entrance to the reserve. Jan and Laurie packed up at 1am, but left the Robinson trap to run on unattended at the top of the reserve. Norman retired to sleep in his van, but Paul was still attending his light at 3am when a member of the public who had found out about the event on the internet appeared. Next morning, 5 members turned up to view the night's catch, bringing the total attendance to 13.

The 180 species of moth recorded must have been close to the all-time record for the Society's mothing events. It was good to see some of the specialised chalk downland species, including good numbers of Chalk Carpet *Scotopteryx bipunctaria* and *Mecyna flavalis* (a Red Data Book species), plus *Pyrausta nigrata* and *Telephila schmidtellus*, an uncommon gelechiid micromoth which is associated with Wild Marjoram *Origanum vulgare*. Then there were the species whose caterpillars feed on Traveller's-joy - Small Emerald *Hemistola chrysoprasaria*, Haworth's Pug *Eupithecia haworthiata*, Fern *Horisme tersata* and Small Waved Umber *H. vitalbata*, and the Buckthorn feeders - Brown Scallop *Philereme vetulata* and Dark Umber *P. transversata*. A surprise find for the site were several fenland species - Fen Wainscot *Arenostola phragmitidis* and Double Lobed *Apamea ophiogramma*. Of particular note was the large number of Footmen - 160, which included no less than 61 Buff Footman *Eilema depressa*, but just one Hoary Footman *E. caniola*. Highlight of the event was a Splendid Brocade *Lacanobia splendens*, the first record for Oxfordshire. This is a moth that was first identified in Britain in 2003 on the south coast, but the number of records of it is increasing, and it seems to be spreading inland.

Sunday 3 August

Sally Rankin led a walk, attended by 22 members, at Chalkhills, Whitchurch-on-Thames, on a pleasantly warm and sunny afternoon. Owner Sandra Parkinson kindly escorted the group for the first section of the route. The first field had too much False Brome *Brachypodium sylvaticum* and not much Marjoram. The False Brome would normally be kept in check by sheep, but while the bridge across the Thames at Whitchurch remains closed, it is not economical for the regular grazier to keep his flock there. The next paddock contained a number of different varieties of Hazel *Corylus avellana*, with items such as brown plastic bowls and red and blue plastic lids suspended from their branches. The trees are colour-coded to help the pickers to identify the different varieties. Meadow Brown, Small Tortoiseshell and Common Blue butterflies and Marjoram, Agrimony *Agrimonia eupatoria*, Wild Basil *Clinopodium vulgare*, Vervain *Verbena officinalis* and Burnet-saxifrage *Pimpinella saxifraga* were amongst the sightings here. Continuing up the valley, Guelder-rose with reddening berries and a Cherry Plum *Prunus cerasifera* with ripe red fruits were seen beside the track. Two friendly donkeys were grazing in the next paddock. Disturbed ground across the fence in the adjacent woodland edge had an interesting collection of plants, including

Ploughman's-spikenard *Inula conyzae*, Viper's-bugloss *Echium vulgare*, Cat-mint *Nepeta cataria* (which is on the Oxfordshire Rare Plants list), Hound's-tongue *Cynoglossum officinale* (whose leaves reputedly smell of mice) and Great Mullein *Verbascum thapsus*. Butterflies seen here included Brimstone, Peacock *Inachis io*, Gatekeeper *Pyronia tithonus*, Brown Argus, Red Admiral and a single Clouded Yellow *Colias croceus*.

The walk continued steeply up through the woods. In a clearing were several Deadly Nightshade plants, with both flowers and berries, and several small clumps of Box *Buxus sempervirens*. A Buzzard flew quietly away between the trees. Near the top of the woods were a number of Spurge-laurel plants and the seed heads of White Helleborine plants. The path led onto superb chalk grassland at the top of the hill. Common Rock-rose, Squinancywort, Small Scabious, Wild Parsnip *Pastinaca sativa*, Dwarf Thistle *Cirsium acaule* and Carlina Thistle *Carlina vulgaris* were amongst the flowers seen here. Flower seeds are being collected from a paddock at the top of hill from which the sheep are excluded. Small Copper, Large White *Pieris brassicae* and Small White *P. rapae* butterflies were added to the species tally here. The group then spread out to explore the Basin, the steep chalk slopes which look southwards across the valley of the Thames. About 6 Chalkhill Blue *Lysandra coridon* butterflies were seen, together with a few Marbled Whites. Chalk Carpet moths were quite numerous, as was the micromoth *Mecyna flavalis*. Tiny solitary bees were visiting bare patches of chalk. It was interesting to compare the flowers of Clustered Bellflower and Autumn Gentian *Gentianella amarella*, which were growing conveniently close together. Other plants seen here included Yellow-wort, Quaking-grass, Wild Thyme and Blue Fleabane *Erigeron acer*. On a steep bare-soil patch at the bottom of the field were a few clumps of Basil Thyme *Clinopodium acinos*, together with very small Pale Toadflax *Linaria repens* plants and some white Common Centaury *Centaureum erythraea*. The last stretch of the walk led down through woodland, where there were Hornbeams *Carpinus betulus* with dangling seeds. At the entrance to the final field were a number of plants of Common Calamint *Clinopodium ascendens*. Sandra kindly provided tea and cakes afterwards.

Saturday 23 August

Renée Grayer led a walk, attended by 16 members and friends, at Chobham Common. Owned by Surrey County Council and managed by Surrey Wildlife Trust, it is the largest National Nature Reserve in South East England. The site is a lowland heath area of 585 hectares with some 60 ponds. It is rich in plants, birds, reptiles, amphibians, butterflies and other insects, with the wetland heath particularly interesting from a botanical and wildlife point of view. One of the big problems in the recent years has been the increase in Purple Moor-grass *Molinia caerulea*, partly due to increased nutrient levels. Cattle have been introduced in specific areas in the hope that grazing will diminish this problem. The group started from the car park at the junction of the B386 and B383, setting out in a northerly direction towards the Monument. Half way there was an interesting bog containing Water-pepper *Persicaria hydropiper*, Gypsywort *Lycopus europaeus*, Tufted Forget-me-not *Myosotis laxa*, Trifid Bur-marigold *Bidens tripartita* and Marsh Cudweed *Gnaphalium uliginosum*. On the Northern slope from the Monument, four specimens of the rare Marsh Gentian *Gentiana pneumonanthe* were seen and keenly photographed. In this area three different species of heather were flowering, Bell Heather *Erica cinerea*, Cross-leaved Heath *E. tetralix* and Heather *Calluna vulgaris*. The route then led towards the North-west of the Reserve. On the right of the path was another pond, which contained much Bog Pondweed *Potamogeton polygonifolius*, and along the edge Lesser Spearwort *Ranunculus flammula* was flowering. Further along the path were Wild Marjoram, Water Mint and Germander Speedwell *Veronica chamaedrys*, not flowering, but with white galls on top of the plants, in which there were tiny orange grubs. A red gall was growing on Dog-rose *Rosa canina*, the well-known Robin's Pincushion. Sally Rankin pointed out a small pink knapweed-like flower, Saw-wort *Serratula tinctoria*. At the end of the path was a large swamp with Marsh Pennywort *Hydrocotyle vulgaris* growing on the edge. Swallows were flying over the water.

Harry Matthews then led the group eastwards to a bog containing two different species of Pitcher Plant, the red *Sarracenia purpurea* and yellow-green *S. flava*, insect-eating species that had been introduced from Northern America, but according to Harry they had been growing there for at least 30 years. One of our native insect-eating plants was also growing there abundantly, the Round-

leaved Sundew, *Drosera rotundifolia*. The bog also contained much Bog Asphodel *Narthecium ossifragum*, not flowering but showing conspicuous orange-brown fruits, and Common Cottongrass *Eriophorum angustifolium* with fluffy white tops. The group walked back towards the Monument and then took the main path leading north-eastwards to see several patches of our native Goldenrod *Solidago virgaurea*. Along a side path was another pond. This contained Bogbean *Menyanthes trifoliata* and Bulrush *Typha latifolia*. A little further on were a beautiful specimen of Common Centaury in flower and many plants of Perforate St John's-wort *Hypericum perforatum* in fruit. Other plants in the area included Redshank *Persicaria maculosa*, Devil's-bit Scabious *Succisa pratensis* and Broad-leaved Helleborine. In the drier areas with heather and gorse (both *Ulex europaeus* and *U. minor*), were a number of Grayling butterflies *Hipparchia semele*, some flying, whereas others were resting on the ground with closed wings, perfectly camouflaged. A beautiful Small Copper butterfly had been seen earlier in the day. A number of Stonechats were seen on top of the gorse bushes. A narrow path with another interesting pond, which contained amongst others the rare White Beak-sedge *Rhynchospora alba*, led the group back to the car park.

Sunday 7 September

Michael Keith-Lucas led 22 members on a walk at Snelsmore Common. The woodland around the car park contains a number of ancient woodland indicator species. One of these, a Crab Apple *Malus sylvestris*, had already dropped good numbers of small greenish-yellow fruit onto the surrounding woodland floor. The woods contain a surprising mixture of trees, including lime-loving Common Whitebeam *Sorbus aria* and acid-loving Rowan *S. aucuparia*. Fungi were seen beneath the trees included Common Earthball *Scleroderma citrinum*, Common Yellow Russula *Russula ochroleuca* and Amethyst Deceiver *Laccaria amethystina*. The route led out onto the heath and down the valley into the start of the mire. At the edge was a carpet of yellow Tormentil and Marsh Pennywort, with small round green leaves. As well as the usual pink specimens, there were a few white-flowered Cross-leaved Heath plants. A Common Lizard *Lacerta vivipara* darted into a dense patch of heather. Descending further into the mire, three different types of Sphagnum moss were identified – red *Sphagnum capillifolium*, pale straw-coloured *S. palustre* and green *S. fimbriatum*. A few specimens of Round-leaved Sundew were found, some with spikes of tiny white flowers. A number of small Frogs were seen. Further down the valley was a particularly nutrient-poor section of the mire, fed by springs emerging from below the sandy layers of the Common. Bog Asphodel, Bog Pimpernel *Anagallis tenella*, Common Cotton-grass and White Beak-sedge were found here, together with two more types of Sphagnum, the red *S. magellanicum* and *S. denticulatum*. A distinctive Crane-fly was photographed and later identified as *Pedicia rivosa*. More species of Sphagnum were identified, bringing the total for the afternoon to ten. Michael poked a stick into a marshy pool and demonstrated that bubbles of methane were released.

Leaving the mire behind, the route climbed up onto drier ground on the side of the valley. There was some speculation as to which creature might have constructed the numerous small round holes in the sandy path. A Small Copper butterfly and two young Slow-worms *Anguis fragilis* were seen here. The grey-green lichen *Cladonia fimbriata*, with small cup-like fruits, was abundant on the ground amongst the heather. A Blusher *Amanita rubescens* was spotted beneath a Silver Birch *Betula pendula* at the top of the ridge. Michael pointed out the abrupt edge of the Bracken which marked the boundary between the sands of the Reading Beds and the overlying gravel. The rhizomes of the Bracken can spread easily through sandy soils but not through gravel. Bell Heather put on a fine display at the top of the Common. There were several large, hairy, ginger and black Fox Moth *Macrothylacia rubi* caterpillars and Bilberry *Vaccinium myrtillus* was also seen here.

Sunday 21 September

Fay Newbery led a lichen walk at the Whiteknights Campus of the University of Reading. The meeting point for the 16 members was the car park of the Harborne Building and first stop was an *Acer* in the corner of the car park. Fay described the difference between crustose and foliose lichens and the group were invited to inspect with hand lenses the lichens on the *Acer*. The commonest crustose lichens were *Lecidella elaeochroma*, with black apothecia, and *Lecanora*

chlarotera, whose apothecia are brown with a white margin, looking like jam tarts. The commonest foliose lichens were *Parmelia sulcata*, with tiny ridges, and *Punctelia subrudecta*, with soredia in distinct spots. The group were then challenged to find as many different species of lichen as possible on the paving stones which surround the car park. Next stop was a line of 3 *Prunus* trees next to the road outside the car park. It was noted that the lichens were densest in the forks of the trees, where moisture could accumulate. The adjacent *Prunus* hedge also had some pink patches, which were caused by a fungus which grows on lichens. The group next went to inspect the ageing paintwork round the windows on the nearest building. The commonest lichen here was *Physcia adscendens*, which had tiny hair-like cilia on the ends of the helmet-shaped lobes. Also seen here was the yellow foliose lichen *Xanthoria parietina*, which flourishes in nitrogen-rich locations. A *Sorbus* tree had the distinctly apple-green foliose lichen *Flavoparmelia caperata*. A short distance further on was a wall, with different lichens on the bricks and on the mortar. A nearby Poplar tree showed a distinct rain shadow – there were no lichens immediately below a branch. The Horse Chestnut on the other side of the road was pointed out as unlikely to have much to see in the way of lichens – its weeping shape meant that rain was carried downwards through the outer branches, rather than running down the trunk.

The group then walked back to a flower bed behind the glass houses. On the bare soil were specimens of the tiny black foliose lichen *Collema tenax*. Further on were distinctive *Peltigera* lichens, with brown fruiting tips on the top surface of vertical grey thalli. The gravel bed next to the glass houses had a dense covering of a thalloid liverwort, *Marchantia polymorpha*. The botanists spotted the tiny flowers of Small Toadflax *Chaenorhinum minus* here. After inspecting the gate for lichens (it had recently been cleaned, removing most of its lichen coating), the group headed out to The Wilderness. A fallen tree trunk had a number of *Cladonia* species. Some had red-tipped podetia, some had cup-shaped fruits, one had brown fruits. A Cherry tree had a coating of the granular orange alga *Trentapohlia*, which is apparently, despite its colour, a kind of green alga. A Pedunculate Oak *Quercus robur* had several fruticose lichens, including *Ramalina fastigiata*, with trumpet-like fruits, and the commoner *Ramalina farinacea*. It also had *Evernia prunasti*, which looks fruticose but is actually foliose, with a grey-green upper surface and a white lower surface. Finally, a Sycamore *Acer pseudoplatanus* had a pale crustose fungus with irregular black fruits, *Arthonia radiata*.

Saturday 11 October

Ian Sims led a joint field trip with the British Entomological and Natural History Society (BENHS) and the Berkshire Moth Group at Dinton Pastures Country Park, Winnersh in the morning. Before starting the walk, Ian distributed hand-outs to the 14 attendees describing different sorts of leaf mines – galleries, blotches on upper or lower sides of leaves, folds and rolled up edges. He explained that many of the moths were hard to identify as adults but were much more easily identified as leaf mines. Many of the species are only found on a single host plant. The group set off along the road back towards the entrance, but progress was slow because immediately mines were found on Lime *Tilia* sp., Norway Maple *Acer platanoides*, Dog-rose, Italian Alder *Alnus cordata*, Hawthorn, Ash and Bramble. Turning into the quieter side road to the fishermen's car park, more species were found on Hornbeam, Field Maple and Elm. A cone mine of *Caloptilia syringella* on Ash was opened and found to have about 5 small wriggling larvae of different sizes. Ian explained that a significant proportion of the leaf miners are attacked by parasitoids. When some of the active mines were held up to the light, it was possible to see the tiny larva moving inside. Some larvae were yellow, some green, some brown. Ian pointed out how the start of the long gallery mine of *Stigmella lemniscella* on Elm was very narrow, but it became wider at the points where the larva shed its skin and the next instar emerged. Not all the leaf mines were made by moths – there were fly mines on Stinking Iris *Iris foetidissima*.

The group continued along the road as far as the next bridge, then turned off into a clump of White Poplars *Populus alba*, where one of the rarest species of the day was found. *Phyllonorycter comparella* makes barely-inflated blister mines on the underside of White Poplar leaves. It is a moth with a limited range in Britain and is known from only a handful of sites in Berkshire. Most members of the *Phyllonorycter* family over-winter as pupae within their mines, but *P. comparella* over-winters as an adult. Jon Cole found two specimens of the iridescent green flea beetle

Crepidodera aurea and a single specimen of the dung beetle *Aphodius luridus* on White Poplar leaves. He also found about ten specimens of the carrion beetle *Silpha atrata* hibernating in the surface rotten wood of a felled Oak trunk. A green caterpillar of the Pale Prominent moth and a Dark Bush-cricket were also seen here. Next stop was an oak tree at the edge of an open area. When the mine of *Tischeria ekebadella* on an oak leaf was held up to the light, it looked like a blotch within a bigger blotch. A caterpillar of *Bucculatrix ulmella* came swinging down from on high, attached to a silken thread. The last tree to be examined was a Willow *Salix* sp., where the mine of *Phyllocnistis saligna* had yet another form. It started as a gallery in one leaf, continued down the leaf stem, along the branch and onto another leaf, where the moth pupated in the rolled-up leaf edge. The main walk ended back at the car park, but those who continued to the Wheelwrights Arms also saw *Phyllonorycter platini* on the Plane tree outside the pub and the Firethorn Leaf-miner *Phyllonorycter leucographella* on the leaves of the Pyracantha bushes in the hedge around the café.

Sunday 2 November

Gordon Crutchfield led 14 members on a fungus foray in Nettlebed Woods on Sunday 2 November. After the driest September on record and a mild October, the fungus season was running very late, but recent rain had brought out an abundance of fungi and there was so much to look at that it took a long time to move any distance from the cars. Commonest species was the Butter Cap *Collybia butyracea*, which emerged in lines from the Beech litter. Other early finds included the pale yellow False Death Cap *Amanita citrina*, pink Rosy Bonnet *Mycena rosea*, purple Amethyst Deceiver and the Red Cracking Bolete *Boletus chrysenteron*. Two species with particularly slimy caps were the Ivory Woodwax *Hygrophorus eburneus* and the Beech Milkcap *Lactarius blennius*. A striking greenish-grey fungus was the Aniseed Toadstool *Clitocybe odora*. Gordon demonstrated how the stem of Saffrondrop Bonnet *Mycena crocata* exudes an orange-staining liquid.

The party headed deeper into the woods, but soon realised that there was a greater variety of fungi closer to the road, perhaps caused by extra moisture splashed up by passing cars. The most unusual find of the afternoon was *Lepiota ignivolvata*, found near a tree stump, which had an orange band on the ring round the stem. Next to a fallen log were a number of Wood Blewits *Lepista nuda*, which would have been good to eat when younger. A number of large yellow slugs were seen during the afternoon and some were feeding on the fungi. Several clumps of the densely-branched Upright Coral *Ramaria stricta* were found, with pale yellow tips to the brownish-fingers. The walk continued to the far edge of the wood, where Scaly Earthball *Scleroderma verrucosum* and the orange Larch Bolete *Suillus grevillei* were amongst the finds.

Sunday 7 December

Ian Duddle led a walk, attended by 11 members, at the Searle's Farm gravel pit complex in Burghfield in the morning. The last of the rain from a fast-moving cold front was almost over when the group set out from the southern end of Pingewood Lane. First sighting was a Mistle Thrush *Turdus viscivorus* in the top of a tree. Gadwall *Anas strepera*, Mallard *A. platyrhynchos*, Shoveler *A. clypeata*, Tufted Duck *Aythya fuligula*, Wigeon, Great Crested Grebe, Greylag Goose *Anser anser*, Canada Goose, Coot *Fulica atra* and Mute Swan *Cygnus olor* were all seen at the first gravel pit. The route led into Searle's Farm Lane, before turning right along the footpath between 2 pits. Many of the trees had lost their leaves, which made the yellow and green leaves of the Elms beside the lane more conspicuous. The sun emerged from behind the clouds, turning the wildfowl on the pit to the south of the path into dark silhouettes. A willow with particularly long thin leaves was identified as an Osier *Salix viminalis*. A number of Cormorants *Phalacrocorax carbo* were perching in a tree at the back of the pit on the north side of the footpath. A Grey Heron stood motionless on the far bank and Pochard *Aythya ferina* was added to the tally of duck species. At the end of the path, raindrops glistened on the downy leaves of a Great Mullein plant.

The walk continued northwards towards the Kennet and Avon Canal, first along a track where Bristly Oxtongue *Picris echioides*, Prickly Sow-thistle *Sonchus asper* and Petty Spurge *Euphorbia*

peplus were seen, then through fields. A Kestrel *Falco tinnunculus* perched on a pylon and Fool's-water-cress *Apium nodiflorum* was spotted in a wet ditch. The towpath was followed downstream as far as the weir above Fobney Island, where a solitary female Mandarin *Aix galericulata* duck was resting on the far bank of the canal. Initially her head was turned back, and just her white-dappled chest, white belly and yellow feet could be seen. Then she straightened up and the diagnostic long thin white stripe behind her eye became visible. The walk then continued back along the towpath towards Burghfield Bridge. There were good views of a Grey Wagtail *Motacilla cinerea* as it perched on a window ledge of the Southcote Mill buildings. A number of bird feeders on the bushes behind a moored narrow-boat were visited by a procession of Great Tits *Parus major*, Blue Tits and a single Great Spotted Woodpecker *Dendrocopos major*. The final section of the walk was back along Pingewood Lane to the parked cars.

I would like to take the opportunity to thank all the members who have led walks in 2014. Renée Grayer provided detailed species lists and Rob Stallard has taken many of the photographs which have been used on the Excursions section of the Society's website. I would also like to thank Ken and Sarah White, Sean O'Leary, Chris Ash, Sheelagh Hill, Norman Hall, Renée Grayer, Fay Newbury and Ian Sims for their contributions to this report.

MID-WEEK WALKS 2014

Jan Haseler

Wednesday 15 January

The first mid-week walk of 2014 was on a mild, damp morning, when Jan Haseler led a walk which started from the National Trust car park at the top of Streatley Hill. The Hazels beside the car park were already covered with catkins. Five members started out across the road to The Holies and continued along the track at the top of the woods, before turning left down the steep path towards the village. Most of the trees had a skirt of moss around their bases, but a Beech tree to the left of the path had moss growing to a height of at least 5 metres. The moss was identified as predominantly *Kindbergia praelonga* by Sue White. In the woods on the other side of the path were several particularly big and prominent clumps of ferns. Closer inspection of the undersides of the fronds revealed black dots at the bases of the pinnae, diagnostic of Scaly Male-fern. Nearby were less conspicuous clumps of Male-fern which were beginning to die back for the winter. The talk at the Society's previous evening meeting had been about using pollen to solve crime and a pollen calendar had been displayed, with Yew being the first species in the year to shed pollen. A number of Yews next to the path were inspected for flowers and pollen. Surprisingly, they all appeared to be male trees, with creamy still-closed flower buds. Later in the walk, a number of female trees were found, with traces of the previous season's berries. A Herb-Robert plant, growing out of the moss on top of a dead tree stump, was in flower and a Song Thrush was singing as the group emerged from the woods.

The route then followed a willow hedge across a field at the top of the site before dropping down onto fine chalk grassland. Seed-heads of Marjoram, Carline Thistle and Wild Carrot were identified and gentian and orchid flower-heads were also found. Amongst the grass were patches of *Homalothecium lutescens*, a greenish-gold moss which is characteristic of short unimproved calcareous grassland. There were distant views of the flooded fields beside the Thames and a Buzzard glided above the trees. After dropping down almost to the road, the walk continued up the steep track towards High Holies. New spikes of Lords-and-Ladies were beginning to emerge on the bank beside the track. Continuing down the other side of the ridge, a clump of Stinking Hellebore in full flower was found in the verge at the side of the lane. The route then led through a small copse, where a Great Spotted Woodpecker and a Bullfinch were heard and a twig with pink Coral-spot fungus was found. The next footpath led back steeply up the hill towards The Holies. Between the footpath and the field edge was an unploughed section which had abundant flowering

Musk Thistles, with a scattering of Bristly Oxtongue plants, some of which were in flower. After negotiating a rather awkward stile back onto the National Trust land, the group turned left and followed the footpath which ran above the edge of the field. Primrose plants beside the path had rosettes of new leaves. A number of trees in the wood at the end of the path had blown down in the recent gales. Bluebell leaves poking up out of the leaf litter were at a surprisingly advanced stage for mid-January. Snowdrops were in flower at the side of the track back to the car park. The walk was followed by lunch at The Four Points near Aldworth.

Wednesday 19 February

The approach road was under water and there were sandbags at the front door of the Blackbird pub at Bagnor, when Jan Haseler led a circular walk to Boxford and back. Five members started out across the fields and up a track towards Boxford Common. In the first patch of woodland were two fully-flowering plants of Stinking Hellebore. Emerging into the fields beyond, there were two Sky Larks high in the sky and both Song and Mistle Thrushes were singing. The next copse had contrasting vegetation on either side of the track. On the right, the ground cover of grass and nettles indicated secondary woodland, while on the left was Hazel coppice, with the leaves of Bluebells, Primroses, Dog's Mercury and Celandines carpeting the woodland floor. On the far side of the crossroads in the centre of the copse was a former saw-pit with about 40 Green Hellebore plants, with big buds but not yet quite in flower. The track continued across one more field, then up to Boxford Common, where the predominant vegetation was Oak and Bracken. Round the steep western slopes of the hill were many Snowdrops. Species-poor grass covered the top of the common. Apparently 1.5 metres of gravel were taken from Boxford Common when the M4 was being built. A Buzzard and a Red Kite circled overhead.

At the end of the common, the route turned left and followed the lane into Boxford. A Winter Honeysuckle beside the road had at least 5 honeybees foraging on its flowers. There was a brief diversion into the churchyard to look at the mass dial in the porch and the restored Saxon window on the north side of the church. A garden of remembrance had been laid out next to the Lambourn River. The fields beyond were flooded, with Mute Swans and Mallards afloat. The return track followed the course of the river downstream. There were some outstanding clumps of Snowdrops. Half way along the route, there was a diversion towards the river to inspect the sluice gates which would originally have controlled the flow across the water meadows. The river water was crystal clear, fast-flowing and deep and a single fish was seen, darting along at depth. Lesser Celandines were in flower on the bank-side, with white Pussy Willow in flower beside the path. The route then led back through another Snowdrop-filled wood and along a hedge-lined track, before returning to Bagnor, where everyone went to the Blackbird pub for lunch.

Wednesday 19 March

Chris Ash and Sheelagh Hill led a party of ten on a walk around their home village of Binfield Heath. The group set off across the fields to High Woods in overcast but warm conditions. A Yellowhammer and a Wren were seen. By the field edges Germander Speedwell, Common Chickweed and Ground-ivy were all in flower. In the woods near the site of a probable Roman villa were violets, Wood Anemones and Dog's Mercury. Coming out into a lane, an Ash tree was in flower and on a driveway was some Common Whitlowgrass. A few more birds were seen or heard, including a Green Woodpecker, a Great Spotted Woodpecker, a Common Buzzard and Sky Larks. Heading south through Shiplake Woods, Goldilocks Buttercup was in bud, but Cow Parsley, Comfrey and Green Alkanet were already in flower. The walk continued to Keeps Lane which was an ancient track used for transporting goods to avoid the shallow shoals on the Thames. In the sunken lane were an ancient oak tree and also an elm tree in flower. Back in the village of Binfield Heath, a pond had a mass of frog-spawn and along the edge of a nearby ditch were Colt's-foot and Primroses. Departing from the normal end of walk pub lunch tradition, the group were welcomed to Chris and Sheelagh's home and given a lovely meal of home-made soup with bread and cheese. Their garden attracts a wide range of birds including Lesser Redpolls which were a delight to see.

Wednesday 16 April

Rob Stallard led 13 members on a circular walk which started from the car park next to the cricket pitch and village hall in Woodcote. The route led northwards from the village, following lanes and footpaths and crossing the busy A4074 Caversham – Oxford road, heading towards the Woodland Trust's North Grove Wood. An old Ash tree beside the path had multiple trunks which had fused together a number of times. There was a big patch of Goldilocks Buttercups in the verge near the entrance to the wood. Leaving the main track, a footpath led westwards along the southern side of the wood. Flowering Woodruff was found at the top of a chalk pit. Half way along, the woodland floor became carpeted by a sea of Bluebells and their scent carried on the still air. At the far end of the wood were Yellow Archangel plants, some with plain green leaves, some with variegated leaves. Walking back to the main track, a number of new Beech seedlings were spotted, coming up through the leaf litter. The track emerged on the north side of the wood, with distant views north-westwards across the Oxfordshire lowlands. Oil-seed Rape fields formed blocks of yellow and Sky Larks were singing high above. On the far side of the valley, two Kestrels mobbed a Buzzard. The first butterfly of day, a Small Tortoiseshell, was spotted in one of the field margins.

After turning eastwards along the lane at the bottom of the valley for a short distance, the route followed another footpath back up through Hammond's Wood. Hairy Wood-rush, with small white flowers, was noted on the banks beside the path and Bush Vetch, with dull purple flowers, was found on the verge in front of the houses at the end of the track. The route continued along another track, Corker's Lane, with Wood Anemones and Wood-sorrel in profusion at the side of path. A single clump of Moschatel was seen and a singing Blackcap was heard. The walk continued across the fields to Exlade Street, then on through the grounds of the Oratory School before heading back across the cricket pitch to the car park. Most of party then headed to the Red Lion for lunch.

Wednesday 21 May

Rob Stallard led a walk attended by 11 members at Bramshill on a warm, sunny morning. The walk followed a convoluted route, taking in as many ponds as possible. Finds near the car park included Heath Speedwell, Lesser Stitchwort, Blinks and a number of Speckled Yellow moths. The first pond had shallow muddy edges, where Southern Marsh-orchid, Marsh Pennywort, Lesser Spearwort, Star Sedge and Common Yellow-sedge were seen. The steep sandy bank above the pond had a series of small holes, and close to their entrances were a tiny metallic green and purple jewel wasp and some sort of digger wasp. A Nightingale was heard singing nearby. After a brief battle through dense conifers, the next pond was much darker, with encircling trees. Tall spikes of Great Horsetail were growing near its edge. Continuing along a wide and sunny stretch of track, Green Hairstreak and Dingy Skipper butterflies were seen. Approaching another pond, the group stopped to listen to a surprisingly loud chorus of frogs. These were one of the 'green frog' species – Pool, Marsh or Edible Frog. Three Roe Deer were disturbed from the woods nearby.

The next pool was large and open, with a fringe of Pond Water-crowfoot and also white drifts of it further out in deeper water. Leaves of Water-plantain were emerging from the water. On the bank were several clumps of the tiny Bird's-foot and three Hobbies flew overhead. A number of dragonflies and damselflies were seen, including mating Azure Damselflies, a cruising Emperor Dragonfly and an obliging Four-spotted Chaser, which perched on a young pine tree. Also seen were Small Copper, Common Blue, Brimstone, Speckled Wood and Meadow Brown butterflies and Mother Shipton and Brown Silver-line moths. Several Wood Ant nests were found beside the path towards the end of the walk. Afterwards, lunch was enjoyed at the Golden Pot at Eversley.

Wednesday 18 June

Chris Ash led a walk at Moorend Common near Frieth in Buckinghamshire. Moorend Common, which is designated as a Site of Special Scientific Interest, is a mosaic of ancient woodland and open areas. The geology is almost unique in the Chilterns because the chalk is still covered by

layers of clay. The woodlands include areas of Beech high forest in Moor Copse, Oak-Birch woodland and a small area of conifer plantation. The open areas, which used to be more extensive, include areas of acid and marshy grassland, heather and Bracken. Due to the mixture of soils and wet areas, over 200 plant species have been recorded on the site including a huge variety of orchids. These, in turn, attract a range of butterflies including rare species such as the Purple Emperor. The Common is owned and managed by the Lane End Parish Council. It is about 22 hectares in total, split between North, Middle and South meadow areas. Middle Meadow is the least spectacular florally, but the ride down to South Meadow is rich with grasses, rushes and sedges. The walk into South Meadow was very wet due to recent heavy rains and the meadow was ablaze with orchids and wet meadow flowers and included one remaining Petty Whin specimen. South Meadow is dominated by Southern Marsh Orchids and their various hybrids, as well as Ragged Robin, Buttercups, Cuckooflower, Sneezewort, Square-stalked St John's-wort and numerous grasses. Continuing to North Meadow, there were hundreds of Heath Spotted-orchids in flower and a large marshy area of rushes, sedges, grasses and wild flowers, including Water Figwort and Bitter-vetch. In the woods on the way to the Prince Albert pub, Broad-leaved Helleborines were in bud.

Wednesday 16 July

Sheelagh Hill led a walk which started from the Stag and Huntsman pub at Hambleden on a hot, sunny morning. The group set out across the playing field then started up the steep side of a maize field. Plants beside the path included Vervain, Wild Basil, Nettle-leaved Bellflower, Hairy St John's-wort and Ploughman's Spikenard. Butterflies here included numerous Meadow Browns, Ringlets and Gatekeepers. The cool of the woods towards the top was welcome on such a hot day. Enchanter's Nightshade was seen here. On the other side of the woods, the path led out onto a field of barley. In the field margin were an interesting collection of arable weeds, including Sharp-leaved Fluellen, Field Madder, Wild Radish, Common Poppy, Scarlet Pimpernel and Stinking Chamomile. Further on, Corn Spurrey and Swine-cress were unusual finds. Small Skipper butterflies flitted along beside the path and tall clumps of Weld were growing round a concrete drain.

The route led on into first Heath Wood and then Homefield Wood. The main ride through the woods had a wide flowery margin, with plants including Dark Mullein, Marjoram, Perforate and Imperforate St John's-wort, Wild Parsnip, Bramble and Nettle-leaved Bellflower. The butterflies here were abundant and Brimstone, Peacock, Comma, Large Skipper, Small Copper and Silver-washed Fritillary were added to the tally. The meadow in Homefield Wood, a reserve of the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT), was full of flowers, including Broad-leaved Helleborine, Pyramidal Orchid, Yellow-wort, Field and Small Scabious, Common and Greater Knapweed and much more besides. Essex Skipper, Marbled White and Common Blue butterflies were seen here. *Nemophora metallica*, a small, bronze-metallic micro-moth with long white-tipped antennae, was seen on some of the Scabious flower heads. There were many bees and other insects on the flowers. With much forethought, Chris and Sheelagh had left a car parked at the entrance to the reserve, so the drivers could be ferried back to the pub car park, thereby avoiding a long hot return walk. The walk was followed by welcome cold drinks and lunch in the garden of the Stag and Huntsman.

Wednesday 20 August

Jan Haseler led 15 members on a circular walk round the conifer plantations to the west of Mortimer. The walk started at the south-east corner of Holden's Firs, where the group of Bronze Age round barrows is one of the finest surviving examples of small barrow cemeteries in Berkshire. The barrow clearing was carpeted by flowering Ling and Bell Heather, with Dwarf Gorse and Musk Mallow also seen here. Continuing along the tracks through the plantation, one of the puddles had a mixture of a Water-starwort, with leaves flat on the water surface, and Water Purslane, with leaves standing up out of the water. The walk then continued along a wide ride through Hundred Acre Piece. Flowers in the ride margins included Common Fleabane, Water Mint, Blue Fleabane, Common Bird's-foot-trefoil, Gypsywort, Red Bartsia and Goat's-rue. A Clouded Yellow butterfly

paused to nectar on Common Fleabane before flying off along the ride. Other butterfly species seen were Common Blue, Small White, Gatekeeper, Meadow Brown, Red Admiral, Comma, Small Tortoiseshell and Brown Argus. A pale cuckoo bumblebee was nectaring on a Teasel flower and a number of dragonflies were seen, including Common Blue Damselfly and Common Darter. The track towards the western boundary of the plantation was bare and stony and this is where the first of the Grayling butterflies was seen. It landed on the path, closed its wings, briefly showed the pale yellow band with eye spots on the forewing, then tucked its forewings behind its hindwings and vanished, as its cryptically-patterned grey-brown hindwings blended into the stony background. Beyond the western boundary are recent gravel workings and this is where the group had splendid views of a hunting Hobby. Two more Graylings were found here. The return route followed a shady path through a damper stretch of plantation, with a stand of Great Horsetail beside the path. The last Grayling was found in another open, stony section. The group watched it as it closed its wings, shuffled round until it was broad-side on to the sun and then leaned over to maximise its exposure to the sunlight. It then fluttered a short distance to the side of the path and walked around, investigating clumps of fine grasses. The final section of the route led past a dammed lake with White Water-lilies and Broad-leaved Pondweed. The walk was followed by lunch at the Calleva Arms in Silchester.

Wednesday 17 September

Julia Cooper and Ian Duddle, helped by John Lerpiniere, led a walk at Paices Wood, Aldermaston. 16 members started out across the grassy car park area and down to the lowest of the chain of 7 lakes which cross the site, where a large patch of Great Horsetail was growing beside the path which led into the woods. The woods have a rich ground flora and plants seen included Male Fern, Yellow Pimpernel in flower and the leaves of Wood Sorrel, Bugle and violets. The track led up to an open area, bounded by a neat woven fence, which enclosed a recently-coppiced section. The coppice stumps were growing back strongly, in contrast to the deer-damaged plants outside the fence. John pointed out where coppicing had taken place in earlier years. Continuing up the hill, an open section on the left of the path, with abundant flowering Common Fleabane, was described by John as a good place for butterflies and Drab Looper moths. A Bullfinch was heard calling nearby. To the right of the track was a bank with old multi-stemmed Field Maples, which marked the old trackway between Aldermaston and Brimpton Common. At the next junction was the fallen trunk of a big Oak. Beneath a large bracket fungus at its base, presumably *Ganoderma applanatum*, were the galls of the rare Yellow Flat-footed Fly *Agathomyia wankowiczii*, identified on a previous visit by Martin Woolner. According to the Buglife website, this is the only invertebrate in Britain which is known to cause a gall on a fungus. A grassy track bordered by willows led out onto an area of heather-covered heathland where a young Grass Snake was seen. Later in the walk, a dead Slow-worm was found on one of the tracks.

The route continued along a track into the woods of the Wasing Estate and past a small lake. The sun broke through the clouds and the first Speckled Wood butterflies took to the wing. A veteran Beech tree had Holly and Rowan seedlings growing from a fork in the trunk. A large area of open heathland opened up at the side of the path. A number of different species of fungi were seen, including Fly Agaric, False Death Cap, Common Earthball, Common Yellow Russula and Brown Birch Bolete. The next ride had a clump of Lesser Skullcap, with small pink flowers, by the side of the path. The track led back to the dam end of the lake, where a damselfly with a thickened blue segment at the base of a dark abdomen, resting with the wings half open, was identified as an Emerald Damselfly. The walk continued back into Paices Wood, then down the chain of lakes from the top. A clump of Broad-leaved Helleborines, with plump seed heads, was seen beside the path. Red Admiral and Peacock butterflies, a Common Blue Damselfly, Common Darters and a Brown Hawker were amongst the final sightings of the walk. Some of the group then went to the garden of the Hinds Head at Aldermaston for lunch.

Wednesday 15 October

Sheelagh Hill led a circular walk, starting from the Maltsters Arms at Rotherfield Greys, on a mild and damp morning. 5 members set out across a grassy field, then continued steeply down through

Parson's Wood, a Beech wood where the Sonning Common Green Gym have been clearing Holly. The path continued along a field boundary. Looking across the valley, the trees were still mostly green, with the first yellow tones of autumn beginning to appear. The route led across Rocky Lane and into the woods of Greys Court, where the Green Gym had been clearing Laurel. Several noisy flocks of small birds were encountered during the walk, including Great and Blue Tits and Nuthatches and at one point a chorus of alarm calls broke out as a Sparrowhawk flew by. Later a Raven was heard and several Wrens were seen. After an exceptionally dry September, recent rain had triggered the appearance of various fungi, including some cauliflower-like white fungi on stumps and the spikes of a number of Magpie Inkcaps. At one point, the tell-tale smell of Stinkhorns was detected, although none were seen. The walk continued through Famous Copse and a section of Lambridge Wood, before crossing the grounds of Greys Court. Sheelagh pointed out another section of wood where the Green Gym clear Bramble and Bracken to give a splendid display of Bluebells in spring. Beneath the Sweet Chestnut trees were a bountiful crop of glossy nuts, peeping out of their green prickly cases. On the return walk back up through Parson's Wood, several clumps of one of the white coral-like *Clavulina* fungi were found by old beech stumps. The group then returned to the Maltsters Arms for lunch.

Wednesday 19 November

Julia Cooper and Ian Duddle led a circular walk, starting from the Old Boot Inn at Stanford Dingley. 11 members started out northwards through the village, across the River Pang, past the church and up the lane beyond, before turning left onto a footpath across the fields. Many small white waxcap fungi were poking up through the grass in the first field. The footpath continued along a trackway between banks with old multi-stemmed trees. A worrying proportion of the sheep in one of the fields beside the path were seriously lame. A rough attempt was made to measure the girth of a big old Oak beside the path. It appeared to be more than 4 metres wide, putting its likely age above 300 years. Small Holly and Elder bushes were growing out of forks higher up the tree.

The route then turned south along the edge of a wood. The leaves on the Elms and Hazels beside the path were shades of green and yellow and a single pink Herb Robert flower was seen. In the woods nearby was a big swallow-hole. Some of the trees at its edges leant inwards, then turned back to the vertical, indicating that the hole had expanded outwards during their lifetimes. The walk continued along a track which climbed over first clay then gravel, where Gorse and Birch grew beside the track. An interesting collection of fungi were growing underneath a big Beech tree, including a glossy brown variety of *Boletus*, troops of small Puff-balls, two very big Puff-balls and pink specimens of *Mycena rosea*. The sun emerged from behind the clouds, illuminating the oranges and bronzes of the Beech leaves. Turning southwards, Brooklime was seen in puddles in the track and yellow Nipplewort was still in flower. Glossy white Porcelain Fungus was growing out of an upper branch of another big Beech tree. The path led down to the bottom of the valley, where the waters of the Pang were crystal clear. The walk continued downstream along the footpath which ran along the north bank of the river. The fields on either side of the valley looked as if they should have been full of winter thrushes, but none were seen. Walking back into the village, a Nuthatch posed on a fence beside the road. Most of the group then enjoyed lunch at the Old Boot Inn.

I would like to thank the leaders for organising an interesting collection of walks and finding an excellent selection of pubs. I would also like to thank Chris Ash for his contribution to this report.

INDOOR MEETINGS 2014

Ricki Bull, Renée Grayer, Rob Stallard

7 January 2014

Presidential Address Dr. Michael Keith-Lucas

This talk was documented in the previous edition of The Naturalist (No. 66)

21 January 2014

A Close and Friendly Look at British Spiders Martin Woolner

When Martin was asked 6 years ago, as a volunteer at Burnham Beeches, to look at the contents of the current pitfall traps and the pickled contents saved from past traps he began looking at spiders and their identification in detail. This has entailed much work as there are 670 species in Britain: common ones include the Garden Cross, Bathroom, Daddy Longlegs and Water spiders. By contrast the Ladybird spider is present at only a few heathland sites in Dorset. Martin assured the group that no British spider will do most people any harm.

75% of the members of the phylum of arthropods (with jointed legs and a hard external shell) are insects. There are 96000 species within the class of arachnids, a class that includes mites and ticks, false scorpions, spiders, true scorpions, harvestmen and spiders. Spiders are distinguished from the other arthropods in that the usual three body segments are fused into two – the cephalothorax and the abdomen. Unlike insects, spiders do not have antennae and in all except the most primitive group they have the most centralised nervous systems of all arthropods.

Although most people consider only certain spiders to be hairy, all spider species do have hair. Normally they have 100,000 - 300,000 hairs on their body attached to nerves – for sensing movement and sound and some also to note chemical signals or to inform the spider of its position. Of the 300 types of money spider in the UK some are only positively identified through counting the hairs on the legs. There are, however, different types of hair and different uses for the hairs: some are like roof tiles and waterproof the soft skin over the abdomen, some are finely-toothed for combing or carding; while other hair can be used for defence. Some large 'bird-eating' spiders push the latter out to make a cloud in the air - any of these hairs landing on skin are highly irritating, if in the eyes blindness can occur.

Martin used electron microscope pictures to aid in looking more closely at the bodies of spiders. Spinnerets, found on the abdomen of spiders, were shown to vary in shape and the type of spigot. They produce silk for a variety of purposes: anchoring, attachment points, safety lines, frames of webs, outer walls of egg sacs and prey wrapping are a few examples. The legs of spiders, including the stridulatory plates found on some groups (and used to communicate) as well as the feet with claws, brushes and triangular plates helped show how spiders are able to walk on various types of surfaces.

Inside the head is found the venom gland which feeds ducts in the fangs. A spider might immobilise prey, in order to eat it. It then injects an enzyme which breaks the tissues down into liquid which can be sucked – spiders cannot eat solid food. One species of what has been termed vegetarian spider, the *Bagheera kiplingi* has been identified in Central America living on Acacia trees and eating what are called 'beltian bodies' produced on leaf ends in a symbiotic relationship between the tree and a certain type of ant. They do sometimes, however, also eat nectar, steal ant larvae or at the end of the season, can even cannibalise other *Bagheera kiplingi* so they are not totally vegetarian.

The eyes of spiders usually number 6 or 8, the number and the way in which they are arranged can be part of the identification process. Good vision is particularly important for hunting or pouncing spiders that can get high resolution images with a simple lens that can be drawn at different distances from the retina. They can also use polarised light.

Other identification help can be found through the use of webs, egg sacs, and for male spiders, the shape and size of the ends of the pedipalps.

Martin described some of the British species of spiders, their habits and habitats. If one used the number of members surrounding his table at the end of his talk as an indication, it also inspired people to be more curious about this very interesting group of creatures.

4 February 2014

Fungi and plants working together Dr. Martin Bidartondo

Dr. Bidartondo has been looking at the interaction between plants and fungi and how they affect both the ecology and the evolution of each other. Fungi cause some of the most notable diseases in forest: one single generic armillaria individually can occupy hectares, both killing and recycling forest species. There are at least twice as many species of fungi as plants.

Roots allow plants to take up water and minerals, but by themselves are not effective in doing this. Fungi, in turn cannot produce the carbohydrates which they require. A symbiotic relationship between the two means that the mycorrhizal fungi, with filaments ten times thinner than root hairs, can explore the soil in an intensive way, taking in water and minerals (particularly nitrogen, sulphur, and phosphorus) which the plants need, while the plants use photosynthesis to produce carbohydrates that the fungi can also use.

Arbuscular mycorrhizae are endomycorrhizae (endo = inside), and are the most widespread of the mycorrhizae. These fungi penetrate the cell membrane and are found with approximately 80% of the known vascular plant families, including cereals (but not brassicas, carnivorous, parasitic or aquatic plants). They are generalists, have only a few species, and are slow to disperse. All arbuscular mycorrhizae are of the phylum Glomeromycota. The development of the arbuscular mycorrhizal symbiosis is believed to have played a crucial role in the first plant colonisation of land and in the evolution of the vascular plants.

Ectomycorrhizae (ecto = outside) grow between the mantle of the root and in the surrounding soil. The fruiting, or reproductive bodies, of these fungi are sometimes visible as 'mushrooms'. They are commonly associated with forest trees of temperate regions – e.g., pine, birch, oak and beech. Approximately 3% of plant families form associations with ectomycorrhizae.

The third group of mycorrhizae are the Ericoid mycorrhizae, associated with heather and thus growing in areas very low in nutrients. The hyphae are thinner than human hair and grow in coils in the outermost layer of root cells.

The last major group is orchid mycorrhizae which are critically important during orchid germination. Orchid seed is very small and has virtually no energy reserve. It therefore needs to acquire its carbon from the fungus.

Symbiosis in fungi ranges from those parasitic on plants, through a mutual association of plant and fungi to monotropes that are parasitic on fungi. Monotropes contain no chlorophyll and therefore derive both nutrients and carbon from parasitizing on fungi. Bird's nest is an example of a monotrope, parasitic on one particular fungus species that is associated with one particular species of tree and is therefore found within the distribution of that tree. The plants have small seeds of less than 1mm and with few reserves. These seeds therefore require the fungi to feed them.

Research show that bryophytes (liverworts and hornworts which are ancient lineages of plants) came from an aquatic to a terrestrial environment 360 million years ago. Hypotheses suggest that fungi were both involved with this transfer and were established on land before plants. There is not much physical evidence for these fungi and the idea has been questioned.

Dr. Bidartondo completed his talk with a short description of some of his current work and answered the many questions that members asked about his interesting and informative talk.

18 February 2014

What's New in Tree Protection Dr. Glynn Percival

In recent years trees have been subjected to droughts in summer and flooding in winter. (The summers of 2003,4,6,9,11 and 12 were drought years, the winters of 2006,7,8,12,13 had flooding). Extremes cause distress to trees, making them more vulnerable to pests and diseases, some of which have been brought in on nursery stock purchased from the continent.

Pests such as the horse chestnut leaf miner which affect 12% of the trees planted in urban areas will probably not go away. Others such as the Oak Processionary moth are toxic at the larval stage and control is important: 500 mature oaks in Kew gardens are sprayed on a yearly basis.

Dr. Percival spoke of the problems in controlling pests and disease: a lack of registered insecticides/fungicides in Britain and the reluctance to use available products, heavy reliance on sanitation (slash and burn), and the lack of bio-security in the poor control of imported trees and shrubs. This all leads to increased problems with diseases such as massaria in plane trees, bleeding canker of horse chestnuts, acute oak decline, *Chalara fraxinea* in ash, and *Phytophthora ramorum* on larch and some others, *Phytophthora kernoviae* on rhododendron and vaccinium, and sweet chestnut blight.

Dr. Percival illustrated his talk with examples of his work at Buckingham Palace Gardens treating trees affected by Honey fungus and working on improving the general health of the trees.

Soil sampling is an important primary assessment tool, since approximately 80% of tree disorders are caused by problems below ground – whether through lack of nutrients in the soil or through the use of mulch unknowingly with toxic properties either from antibiotics used on animals or heavy metals present in other components. Even generally used lawn products that control weeds and feed lawns can lead to a decline in the trees through a build-up of the chemicals in the soil and the specific mix of weed killers used in combination.

The use of plant defence activators is another tool. Plant defence activators are of two types, biological and chemical. Plants are endowed with several defence genes which are involved in making antifungal, antibacterial and antiviral compounds. By treating the plant with either a biological or chemical agent the plants own defence is switched on. Compounds such as Messenger and Agrifos (in U.S.), Bion (BTH in Europe) and Rigel in the UK (salicylic acid) have been shown in several years of trials to decrease disease by 60-70%.

Root Collar Excavation is another way of improving tree health. Usually trees and shrubs can be planted too deep. These trees have higher death rates than trees planted at the correct depth. An air sprayer is used to blow soil away to expose the root collar and soil is replaced or new mulch is added at the correct depth while perlite or vermiculite is repacked around the root collar. Mulching is another tool which can be beneficial to trees. It's not commonly known that mulches can be more or less beneficial depending on the composition. Pure mulch from cherries or hawthorn is good for stimulating trees and mulches can suppress phytophthora by 40-60%. A mulch from eucalyptus appears to be bringing about the total control of phytophthora. Willow mulch, (which contains salicylic acid) is also good.

The information that Dr. Percival gave us about tree health in his talk was accompanied by his amusing anecdotes about the places he works and the people he meets there...another very enjoyable evening.

For further information on pests and diseases of our trees please see:
<http://www.forestry.gov.uk/pestsanddiseases>

4 March 2014

Butterflies and Orchids of the Upper Thames Malcolm Brownsword

Malcolm took the audience on a journey through familiar and unfamiliar nature reserves in the area. His interest in orchids and butterflies was shown through the beautiful photographs that aptly illustrated the various species and the difference between species.

Malcolm went to Hartslock first in 1975, a few months after it was bought by what was then BBONT and is now BBOWT. At that time there were 5 or 6 monkey orchids which had all been picked within a few days of his visit. Lady orchids were found growing in full sun and in 2006 hybrids arose between the monkey and lady orchids – taller than either and with stiffer stems. Over 400 flowering orchid plants were found but in the last few years these have declined. Other plants found on the reserve include pulsatilla, seeds of which were taken from Aston Upthorpe to Hartslock, and pyramidal orchids. Butterflies found there include common blue, brown argus, adonis blue, marbled whites, meadow brown and green hairstreak.

At Homefield Wood near Marlow, 2 or 3 plants of the military orchid were discovered 45 years ago. There are now 145 plants. The fly, bee and bird's-nest orchids along with the broad-leaved helleborine are also present. On the main ride one can see commas and brimstones and in the meadow, the occasional small copper and white-letter hairstreak can be found. A female silver-washed fritillary laid eggs on moss at the foot of hazel during the last week in July last year. Usually she does so between cracks in the bark of trees from 1-3m above the ground.

Dry Sandford Pit was donated to BBOWT in 1973-74. Common spotted orchids, twayblades, marsh helleborines and the clove-scented marsh fragrant orchid can all be found here. The great green bush cricket and the bloody-nosed beetle are just two of the interesting insects, the latter acquiring its name from the little drops of red liquid that it exudes when it is threatened or bothered.

Sydllings Copse near Headington has acid, alkaline and neutral soils and supports over 400 plant species including the lizard orchid while Seven Barrows has the marsh fritillary and Duke of Burgundy butterflies. Aston Clinton Rag Pits in Buckinghamshire was a chalk mine and from the end of June the orchids include greater butterfly-orchid, pyramidal orchid and thousands of fragrant orchids. Hybrids between Chalk fragrant and Common Spotted orchids and the Greater butterfly orchid can be found there

From Chalkhill Blues on Aston Upthorpe Downs, Silver-spotted skippers on Watlington Hill, brown hairstreak eggs at Bernwood Forest and Meadows to the Purple Emperors there in July, Malcolm showed the members photos to help in identifying and spotting the different characteristics. Green-winged orchids at Bernwood Meadows and Autumn Gentians, narrow-lipped and violet helleborines at Aston Rowant were discussed individually.

Malcolm included butterflies found in his own garden in West Hagbourne. Some examples were the commas on *Sedum spectabile*, brimstones on the alder buckthorn hedge, holly blues, and the scarlet tiger moths that are well-known throughout the village. He then went on to inspire us to look further afield with his audio-visual presentations of orchids found in the south.

18 March 2014

AGM and Members Meeting

Michael Keith-Lucas thanked all members who contributed to the society, in particular: Martin Sell who retires from the committee having made great contributions during his term by bringing both his knowledge and the wisdom accumulated through years of service to his environmental interests, Meryl Beek who has for many years organised the quizzes at the Christmas Party, Colin Dibb who took over the organisation of the Basildon Walkers over the past year and Graham Saunders who stepped onto the committee as Vice Chairman after the death of Chris Bucke. Michael presented flowers on behalf of the committee to the retiring general secretary, Ricki Bull.

Fay Newbery joined the committee as well as Rob Stallard who was elected as the new general secretary

In the secretary's report, it was noted that the attendance at indoor meetings for 2013/14 was about the same as the previous year. Ricki reported that the Committee had held four meetings during the year 2013/14. Susan Twitchett had been a welcome addition to the committee as Winter Programme Secretary. The CBBC event, led by Tricia Marcouse in Christchurch Gardens was the main out-reach event of the year, drawing 5,000 people the first day and 7,500 the second. Walks at Basildon Park continued through to the beginning of December and restarted in February.

Ricki Bull presented the Treasurer's report on behalf of Ian Duddle. The accounts for 2013/14 showed a small surplus. The steep increase in postal charges has been offset by committee members who have hand-delivered items. Ian did not propose a change to subscription rates. The charge for indoor meetings for non-members will be decreased (from October 2014) from £4.00 to £3.00 to encourage additional visitors.

The AGM was followed by a sale of books left to the society by Chris Bucke raising £211.50 and there was also a splendid mixture of presentations from members.

Brian Sargent provided wonderful photographs and videos of a recent trip to Borneo. Most impressively many of the images were of underwater marvels: cuttlefish, turtles with attendant wrasses; a shark being mobbed by jack fish; and of the even more dangerous barracuda. Above ground Brian was lucky to capture a family group of pygmy elephants with a three week old calf. He also saw Silvery Lutung monkeys with their bright orange young. Back underwater again; we saw Manta rays up to 4 metres across; flat worms and numerous other fish of the coral reef.

Next Chris Ash provided a series of magnificent photographs of the 'Strange Flora and Fauna of the Southern Hemisphere'. We started with the gaping mouths of Tawny Frogmouths of Queensland which are night feeders. The Archduke butterfly caterpillars from Singapore are covered in mini-Christmas tree like spines. A photograph showed how camphor trees create an interesting tree canopy pattern because they do not overlap, leaving gaps between each tree. Next there was a black nymph grasshopper covered with lime green 'armour'. Another unusual creature we saw was the Buff-breasted Paradise-Kingfisher from Australia which lays its eggs in termite mounds so that the warmth of the nest incubates its eggs. Colourful processionary moth caterpillars are causing problems not just in Pangbourne but in Australia where the toxic hairs are affecting horses. Lychee stink bugs; Myrtle beech fungus; Mole crickets; Tasmanian Echidna were some of the other curious creatures that Chris had captured with commendable skill.

Remaining in the Southern Hemisphere Jane Selwood introduced us to an unusual tree that inhabits New Zealand: the Kauri tree (*Agathis australis*). Specimens can be seen at the Gundiggers Park Reserve near Kaitia; here the trees are semi-fossilized in swampy ground. It is a large conifer, up to 50m tall, which can live for over 1,000 years. The tree presents a permanent health threat as the pineapple sized fruit can crash down to ground at any time. Regrettably the timber became heavily prized for masts and railway sleepers and so a lot of them have been felled. After 30,000 years its sap solidifies into large amber-like lumps. These were found to produce excellent varnishes and people mined the ancient forests for the amber. Jane was delighted to be taken by Maoris to see the 'King of the Forest', a majestic Kauri tree 14m in girth and 1,200 years old.

The next presentation given by Fay Newbery and Tricia Marcouse brought us back very much closer to home than these exotic foreign locations. The subject was the lichens and mosses growing not on trees, buildings, or gravestones but on a 1986 Vauxhall Nova. The car has only been washed once since Tricia bought it in 1992. The car is still in active use, being parked overnight underneath a rowan tree. The mosses prefer to live on the rubber while the lichens prefer the metal. The glass and plastic area take a little longer to colonize. The number of species has increased over the years; in 2009 there were just 6; in 2012 12 species and now in 2014 there are 16 but not all of these have been definitely identified.

7 October 2014

The natural history of Shetland Dr. Michael Keith-Lucas

Shetland (not the Shetlands!) lies astride the Great Glen Fault, with Old Red Sandstone and granite to the west, and metamorphic rocks, including soapstone and serpentine, to the east. Exposure to gales from the west means much of the west coast has craggy cliffs, whereas the east is more gentle and sheltered. Starting in south Mainland, there are features such as the tombolo linking St. Ninian's to the mainland, and Dor Holm, a small island with a natural arch off north Mainland.

The climate at sea level is equivalent to that at 1500 feet in the Scottish mainland. Before the Neolithic period, when Shetland was first settled, there was tree cover of birch, hazel, willow and rowan, but this was almost completely cleared by Neolithic farmers and today survives only in ravines or on islands in lochs. Attempts at reforestation have largely failed because of the frequent gales, which in turn have selected special forms of animals and plants, such as prostrate *Juncus effusus*, the Shetland Wren and Shetland ponies.

Initially all the upland areas were settled, but as soils and climate deteriorated in the Bronze Age, the upland settlements were abandoned, possibly accelerated by an eruption of Hekla in Iceland, and Shetlanders were forced to become fishermen. Meanwhile blanket peat started to grow over all of the abandoned land surface. Iron Age monuments such as the wheel-houses at Jarlshof, and the broch on Mousa are all coastal. Today most of the settlement is still close to the sea, and oil money has improved the life of Shetlanders, in terms of building programmes, road improvement, and a new museum.

Shetland is famed for its bird life, and the cliffs of Noss and Hermaness show a stratification of nesting birds with puffins in burrows at the top, fulmars just over the edge, guillemots and gannets on the main cliff faces, and shags at the bottom. Hermaness has Great Skuas (Bonxies) and Arctic Skuas as well. Fetlar also has a resident Snowy Owl and Red-necked Phalaropes. Arctic Terns and Eider Ducks are also quite common. Many of these birds are surprisingly recent immigrants.

Islands tend to produce their own idiosyncrasies, so one finds Bell Heather and Cross-leaved Heath growing in the same habitat, which they do not do further south. There are numerous endemic subspecies, such as of Red Campion, which is common in roadside verges. The most remarkable area for unusual plants is on the serpentine of the Keen of Hamar on Unst. Here one finds such rarities as the Norwegian Sandwort, Northern Rock Cress, Alpine Scurvy-grass and the Shetland Mouse-ear Chickweed (only known from this one place).

The future of many of Shetland's plants and animals is rather insecure. Quarrying of sand threatens the unique form of the Sea Pea and Curved Sedge. Over-fishing and climate change have reduced the sand eel populations, and many of the sea birds have had poor breeding seasons as a result. Half of the Keen of Hamar has been damaged by fertiliser application.

It is up to the Shetlanders to take better care of their heritage which is of international importance.

21 October 2013

Floodplain Meadows: a natural and cultural history (with a bit of science and conservation) Emma Rothero

Emma is Outreach Co-ordinator of the Floodplain Meadows Partnership, part of the Department of Environment, Earth and Ecosystems of the Open University. The Partnership wants to monitor, protect and encourage the restoration of wild flower-rich meadows in the UK.

Flower-rich floodplain meadows were still found throughout Britain's river valleys a hundred years ago, but have declined 97% since then and fewer than 1500 hectares are remaining. They had evolved over many centuries in order to sustain livestock over the winter months by providing hay. They were not grazed during spring and summer, but cut annually at the beginning of August (often on the 2nd) to produce hay. In the autumn they were grazed by cattle and often in the winter by sheep, which prevented coarser species from becoming dominant. This promoted the flower-richness of the meadows.

The meadows were usually common land, divided up into hay strips or lammas, often rectangular areas of land. Therefore these Common Meadows were also called Lammas Meadows. Other names were Dole Meadows and Lot Meadows. Each year the Lammas were allocated to the local farmers, often in a democratic way, so if they would get a strip that did not give a very good quality of hay one year, they might get a better one the next year. Examples of Lammas Meadows are still to be found in Cambridgeshire, Yorkshire, Staffordshire and Oxfordshire. Some lammas were permanently marked with stones (looking like grave stones) or wooden poles. In the winter the meadows were often used for other purposes, such as races, fairs, ice-rinks etc., so they were important for the whole community.

The present value of floodplain meadows includes a rich biodiversity (there can be up to 40 different plant species per square metre), they give us an insight into the rural history of an area, they can mitigate floods, take phosphate off the land, they are good for contemplation and they help children to learn more about nature. Because of the rich biodiversity, many flood plain meadows are now designated as SSSIs.

Two ecologically species-rich plant communities which are often present in floodplain meadows are MG8 or 'Lowland Marsh Marigold-Crested Dog's-tail community' and MG4 or 'Great Burnet-Meadow Foxtail grass land'. A list has been compiled of all MG4 grassland in Britain.

Causes of deterioration of floodplain meadows include over-drainage of course, but summer flooding can have even worse effects. Emma showed us an example where only two plant species were left after the land had been under water all summer, and this is difficult to reverse. This phenomenon is not new, because Shakespeare already wrote about such a meadow.

In the 1990s the Open University started a project, studying 30 sites, which were divided into 3750 square metre quadrants. Data were recorded for soil water levels, soil chemistry, etc. Different species do well at different water regimes, from water-logged to dryer soil. Species that do well on rarely flooded meadows include Devil's-bit Scabious, Meadow Buttercup, Red Clover and Oxeye Daisy, whereas species that like a short duration of flooding include Marsh Marigold, Pepper Saxifrage, Meadowsweet, Snake's-head Fritillary and Great Burnet. On land that undergoes flooding for longer periods the vegetation consists mainly of certain grasses, sedges and rushes.

The Floodplain Meadow Partnership also monitors 27 meadows on which Snake's-head Fritillaries grow wild. The flowers are only fertile for 5 days in April, and if they are fertilised (mainly by bees, especially bumble bees), it may take several years before the seeds germinate. Besides, the plants do not flower the first few years. Although they like moist soil, summer flooding has deleterious effects. For example, in the Cricklade North Meadow 587 flowers were counted in the spring of 2012, but only one flower was present in 2013, as the bulbs had not been able to take up nutrients in the previous September because of floods. Chimney Meadows (BBOWT), Shepherd's Meadow in Camberley and Stanford End Meadow near Stratfield Saye are other Fritillary meadows in the neighbourhood of Reading.

The questions after the talk included: "Why does the meadow have to be cut at the beginning of August, because a lot of the seeds of the wildflowers are not yet ripe at that time? It is also better for butterflies if the meadows are cut later." The answer was that the quality of the hay was better in August than in September, when the nutrients of many plants may have gone back into the roots before they die down. Many of the flowering plants in the meadows are perennials, so they will survive. They have adapted to that historical regime of early cutting, otherwise they would not have survived for centuries. What could be done to aid the butterflies is cutting the fields in patches and not all at the same time, so that some flowers would be left for them.

4 November 2014

Butterflies that live with ants Prof. Jeremy Thomas OBE

Jeremy Thomas is professor of Ecology at the University of Oxford and from 2012-2014 he was the President of the Royal Entomological Society. In the late 1970s he discovered the association

between the Large Blue butterfly and ants. Unfortunately, the discovery came too late to save this butterfly from extinction in the UK, but more recently the species has been reintroduced from Sweden.

Ants are a very successful group of insects and have been on the earth for 60-70 million years. Many other organisms have adapted to live alongside them or exploit them, such as beetles, hoverfly larvae and Blue butterflies (fam. Lycaedinae). Almost all species of Blue butterflies have an association with ants, especially the larvae and pupae. These mutualistic relationships vary from occasional associations with several ant species (e.g. the Small Blue, *Cupido minima*), weak associations (e.g. Common Blue, *Polyommatus icarus*), to strong and obligatory associations (Adonis Blue, *Polyommatus bellargus* and Brown Argus, *Aricia agestis*) and highly specialised associations, e.g. Silver-studded Blue (*Plebejus argus*), which species has a strong relationship with black ants only, either *Lasius niger* or *L. alienatus*, depending on the habitat where the butterfly population occurs. In the UK, Silver-studded Blues are mainly found in heathlands, where their food plants are species of heather (*Calluna vulgaris*, *Erica cinerea*, *E. tetralix*) or Gorse (*Ulex* spp.), but there are also populations in chalk grasslands, where their food plants include Bird's-foot Trefoil (*Lotus corniculatus*), Horseshoe Vetch (*Hippocrepis comosa*) and species of Thyme. They now think that the heath and chalk grassland populations may be different (cryptic) species, because they produce different chemicals and are associated with different black ant species.

The lifecycle of the Silver-studded Blue is as follows: Females lay their eggs on the edge of ant hills. When the eggs hatch, ants take the larvae very carefully to their nest. The caterpillars have many glands on their body that excrete honeydew droplets containing sugars and amino acids, on which the ants feed. But it cannot be the honeydew alone that attracts the black ants, as different ant species do not take these caterpillars. They probably also excrete the same pheromones as the ants, but we do not know yet the chemicals involved. The pupae also have honeydew-producing glands, but fewer than the caterpillars. The advantage for the butterfly to be in an ant nest during the development is protection from predators and pathogenic fungi, but there is a cost, because they have to eat a lot to produce all that honeydew. We do not know yet what the caterpillars eat while in the ant's nest, perhaps the roots of their food plant. After the butterflies have emerged from their chrysalis, they are still surrounded by ants when they come out of the nest and pump air into their wings, which takes three quarters of an hour before they can fly away.

Large Blue butterflies (*Maculinea arion* or *Phengaris arion*) have a different association with ants. They either predate on ant larvae or they employ the so-called "cuckoo strategy". After they have hatched, the caterpillars feed on Thyme (*Thymus polytrichus*) or Marjoram (*Origanum* spp.) until the 3rd or 4th instar, but hardly grow. Instead they develop glands to attract the red ant *Myrmica sabuleti*. When they start releasing chemicals that mimic those of the *M. sabuleti*, they are taken by the ants to their nest as they think they are their own larvae. In the nest the caterpillars start eating the ant larvae, the biggest grubs first, sliding over the surface with their mouth underneath their body. The caterpillars stay in the ant nest for 10 months and sometimes for 22 months!

On the continent of Europe there are also 'cuckoo species' of Large Blue butterfly, which mimic the larvae and are fed directly by nurse ants, which prefer the big caterpillar to their own brood. The Marsh Gentian is the food plant of these butterflies and the eggs are laid on the flowers. The caterpillars have to mimic the chemicals of the *Myrmica* species closely, because if the ants have a suspicion that the caterpillars are strangers, they are killed and eaten. There are five species of Large Blue butterflies and they are all associated with different red ant species. Chemical mimicry accounts for host specificity. There is also acoustic mimicry; Large Blue caterpillars and pupae imitate the sound of the queen ant, which elevates their social status, as they are then treated as a queen ant. The sounds they make are caused by blowing wind through the trachea.

Ants do not protect the butterflies from parasitoids. Silver-studded Blue populations in Portland have four different parasitoids despite the ants and sometimes half of the butterflies are killed by their parasitoids. Holly Blue (*Celastrina argiolus*) populations crash every 4-6 years driven by its parasitoid, *Listrodomus nyctemerus*. The population cycle of the parasitoid follows that of the Holly Blue closely. Their population crashes soon after that of the butterfly, and when the number of butterflies increases again, the numbers of parasitoids also increase.

18 November 2014

Marek Borkowski (Wildlife Poland) Pole position in nature conservation

Marek Borkowski lives in the Biebrza marshes of north-eastern Poland with his partner Hania and their four children. A keen birdwatcher from an early age, he studied at Warsaw University and is now Poland's leading field ornithologist with an unsurpassed knowledge of the birds of the Biebrza marshes on which he was worked tirelessly for 25 years.

Marek dedicated his talk to the memory of British ornithologists Derek Moore and Bob Scott. The talk introduced the wildlife of the marshes; explained why they were there and finally described conservation methods employed.

The marshes have a great many rare species, small herds of bison still roam; wolves by the thousands hunt as well as lynx and otters. There are beavers in the tens of thousands. Moose are common too, with wild boars in the hundreds of thousands. For plants Lady Slipper orchids are present together with another 19 species of orchid and Liverleaf (*Hepatica nobilis*) form blue carpets in Spring. Marsh marigolds cover vast areas. For amphibians the fire-bellied toads are well camouflaged in the marshes. The white stork is well regarded in Poland as they bring good luck and babies while the black stork is not considered auspicious and has struggled to survive. There are 20 species of raptor including 12 species of owl. Other well represented families are grebes (5 species), woodpeckers (10 species; including the black woodpecker) and marsh tern (3 species).

In order to explain the undeveloped nature of the marshes that leads to the abundance and variety of wildlife; Marek pointed out that much of northern Europe used to be similar to this area of north-eastern Poland, but was almost completely converted to farmland as settlement occurred. Certainly the harsh winters could be a factor, but Russia has harsher winters and yet there is little wilderness there. Geologically, like much of the region, it is covered in 100m of glacial deposits and the soil is peaty. The winters are dry but cold and after the thaw in March the area is covered in marsh. What seems to be significant is that it was a border area on an important land route. Up until the 20th century the area was never ruled by one country and had been left as a no man's land or buffer zone. Leaving it as marshy land inhibited any invasion as horses could not cross the extensive marshes.

There were enormous flocks of geese and herds of horses. They kept down the scrub which would have otherwise gradually converted the area to forest. Human cultivation was limited; people scythed the marshy land and took away the hay during winter for fodder when the area was frozen. Population was very low at 1 person per km² and cultivation of the whole 100,000 hectares was done by hand. This subsistence agriculture was squeezed out by the 1970s.

When the Communists took over after WW2 they had some plans to drain the marshes but ended up leaving it alone with the result that parts turned into scrubland. To preserve the marshland a new form of ecological management was needed. Marek's solution was to re-introduce Konik horses that descend from an ancient breed adapted to live in marshland. Most importantly they will eat willow and alder that would otherwise choke the marshes. He managed to buy an area of land which he called his 'garden' but was more like the size of a large farm. He has successfully bred the horses after many setbacks and they have now been introduced into other marshes overseas such as the Suffolk Wildlife Trust and Minsmere.

Marek then described the wildlife he had conserved in his 'garden'. One of the rarest is the Aquatic Warbler (*Acrocephalus paludicola*) that requires low tussocks in open marsh for its nests. Approaches that mechanically mow the marshes destroy the tussocks and the warblers cannot survive. Numbers of warblers had risen to 5,000. Ruffs (*Philomachus pugnax*) were quite common. What was interesting is that males are all different in their colour and markings. Males defend territory and it is the darker forms that seem more aggressive than lighter ones. A particular success is the Great Snipe (*Gallinago media*) which is a common but secretive bird in the marshes. Marek needed to study them at night as that is when they display and call. They use white tail feathers and jump into the air to display. Once again he found it was the tussocks that were the key to their survival.

The Polish government and people have sought EU funding to conserve the area but much of the effort is misdirected or misspent as there is insufficient attention to understanding the complete ecological system. The use of modern tractors can quickly turn marsh into green deserts. For 25 years Marek has opened his house and 'garden' to visitors in order to advertise the riches of the Biebrza marshes. Visitors can see many attractions close to hand including white backed woodpeckers; eagle owls and hoopoes.

2 December 2014

Tracking tropical seabirds: the influence of genes and environment on dispersal Katherine Booth-Jones

The speaker did her undergraduate study at Cardiff University and is now studying the distribution and breeding ecology of Round Island petrels for a PhD at the University of Reading. She has been doing field work on Round Island since 2009.

Katherine started her talk by telling us about the natural history of Mauritius and surrounding islands. They are volcanic and have never been part of the mainland of Africa. For that reason the flora and fauna are very different and the wildlife that has evolved there is quite unique and a high level of endemism is present. They used to be free from Mammalian predators until the Portuguese and Dutch settlers arrived in the 16th and 17th centuries. The worst of the introduced species, meant or by accident, were goats, cats and rats. These had a disastrous effect on the native plants, birds and reptiles. The dodo and other species became extinct. Moreover, the native forest was decimated by cutting down the trees to make way for sugar cane plantations.

Conservation started in 1974, especially because of the efforts of Gerald Durrell. Since 1985, Prof. Carl Jones and his group have saved many species from extinction such as the Mauritius Kestrel, Mauritius parakeet, Pink Pigeon and Mauritius Olive White-eye, birds that had been hit by habitat loss and pesticides. From the brink of extinction, there now are 400 individuals of the Mauritius Kestrel. In 1980 there were fewer than 20 Echo Parakeets left and now there are ca. 540 individuals.

There are a number of small islands surrounding Mauritius, which have become havens for the native species, as it is easier to make them free from predators and invasive species. For example, on the Ile aux Aigrettes, which is only 800 metres from the Mauritius coastline and consists of 27 hectares of coralline limestone, they are reintroducing the Olive White-eye and Mauritius Fody. Round Island is 22.5 km off the NE coast of Mauritius and 214 hectares in size. The volcanic cone is 25,000-100,000 years old and has never been invaded by rats and shrews as it is difficult for people to visit by boat. Supplies are now mainly flown in by helicopter. There are remnants of a palm forest in which the rare Wild Hurricane-palm occurs. It is now a refuge for endemic reptiles and the sea bird colony is unique to the Indian Ocean.

Unfortunately, sailors left goats and rabbits on the island in previous centuries. This had a devastating effect on the native plants and animals, and the Burrowing Boa became extinct. Soil erosion took place after deforestation, but the resulting barren habitat turned out to be excellent for nesting sites of seabirds such as petrels. Goats and rabbits were eradicated in 1979 and 1986, respectively, and the island is now managed by the Mauritius Wildlife Fund and the Mauritius government. Since 2002 there is a permanent warden. It is not easy to live there as there is no running water. Electricity is generated by solar power. Food supplies are flown in or shipped in from the mainland, but everything that arrives has to be inspected for insects, rats, etc. The warden duties involve restoring native plant species, monitoring wildlife and managing invasive species.

Round Island has many endemic reptiles, including Telfair's Skink and several species of gecko. Aldabra Giant Tortoise and Radiated Tortoise have been introduced to replace two analogue native species that became extinct. The island is a haven for seabirds because of the lack of invasive rodents that eat their eggs. There are breeding populations of Wild-tailed Tropicbird, Red-tailed Tropicbird, Wedge-tailed Shearwater and Bulwer's Petrel (3 pairs).

There are ca. 1500 “Round Island petrels”, which breed all year round and nest on the surface of the island. It appears to be a hybrid swarm of three or four species which are interbreeding. They belong to the Procellariiformes (Albatrosses and Petrels) which are highly pelagic (mainly in the ocean, only on land to breed), colonial, there is biparental care of one offspring, they travel huge distances and they are philopatric. The species involved are 1) Trindade Petrel (*Pterodroma arminjoniana*), which comes originally from the Trindade Island; 2) Kermadec Petrel (*P. neglecta*), which is slightly larger; and 3) Herald Petrel (*P. heraldica*), which is smaller than the Trindade Petrel and not polychromatic. In the hybrids, the differences in characters among the birds are continuous.

Katherine's PhD work involves research on the breeding distribution of these petrels, their changing environment and their evolutionary background. Her field work on Round Island started in Nov. 2009 by attaching geolocators (GLs) to the birds. These are miniature light weight archival tags which record essential light level information, which can be processed to give location latitude and longitude. In 2009 and 2010, GLs were attached to 220 petrels and their blood samples taken. 120 GLs were recovered and the light data on them indicated that some individuals would interact on islands, whereas others did not land and stayed in the ocean.

This research is carried out because seabirds are the most threatened group of birds and half of the species are in severe decline. This is caused by human activity (by catch of fishing, invasive species, climate change, etc.). Most of the research on seabirds is done in the Atlantic Ocean, but not in the Indian Ocean. Climate change causes unpredictable climate events such as El Niño. In turn this causes changes in abundance and location of phytoplankton bloom on which the birds feed. Increasing sea temperatures also change their locations.

Seabirds are good bio-indicators as they are top predators. Their population health can be used as a proxy for the health of the ecosystems on which they rely. A high biodiversity is thought to buffer populations against environmental change. Fortunately, in the Round Island petrel hybrid swarm there seems to be much genetic diversity.

The study of 134 tracks from 95 individuals over 60 days indicated that monsoon distribution affects prey availability. In the NE Monsoon season, which is from October until April, the petrels focus on the North of the island. They focus on the South in April/May during the SW Monsoon season, as the warmer temperatures have moved the plankton southwards.

There is also evidence of interbreeding among different petrel populations in other ocean basins, e.g. East of Australia, where one third of the DNA samples come from the Kermadec petrel. Collection of sufficient DNA samples of petrels is difficult, as they have to be taken from all over the world to get a good indication of what is going on. Fortunately, bits of petrel skins could be taken from specimens in the American Museum of Natural History from the Whitney Expedition of the 1920s. Katherine uses microsatellite genotyping (non-coding parts of the DNA which change quickly during evolution) of 20 loci, and she found within population variation. Research in the future will deal with the effect on environmental variables.

16 December 2014

Christmas Party

The Christmas party was held on 16th December. The 32 members present were served with mulled wine kindly provided by Michael and Jose Keith-Lucas and then had a number of quizzes to do while eating the festive food brought in by members. There was a multi-part quiz set by Lesley Hawker with flowers, birds and trees. Meanwhile Rob Stallard had devised a fiendish Butterfly picture quiz. After the food was consumed the competition answers and winners were announced, Richard Stansfield won the main quiz and Grahame Hawker the butterfly quiz.

Trish Marcouse then gave a short illustrated talk on a recent visit to Western Australia where she found that honey bees far from being in decline were out-competing indigenous pollinating species including cockatoos and other bees. The clear message was that building up honey bee numbers was not the correct strategy in all environments.

Photographic Competition 2014
winning photographs (see page 37)

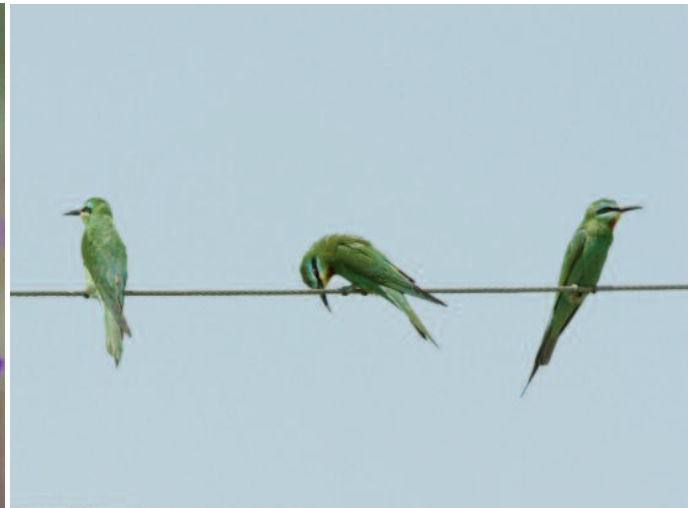


Canada Goose with
 Goslings, River Thames,
 Goring

Overall winner and winner of
 Little and Large: © - Ian
 Esland



Humming bird Hawkmoth on Anchusa leptophylla at
 Aladağlar, Turkey
 Winner: Small is Beautiful © - Richard Stansfield



Blue Cheeked Bee Eaters at Estağfirullah, Turkey
 Winner: Three of a Kind © - Richard Stansfield



Kurdish Wheatear, Verbascum at Işıklı, Turkey
 Winner: Nature in Action © - Richard Stansfield

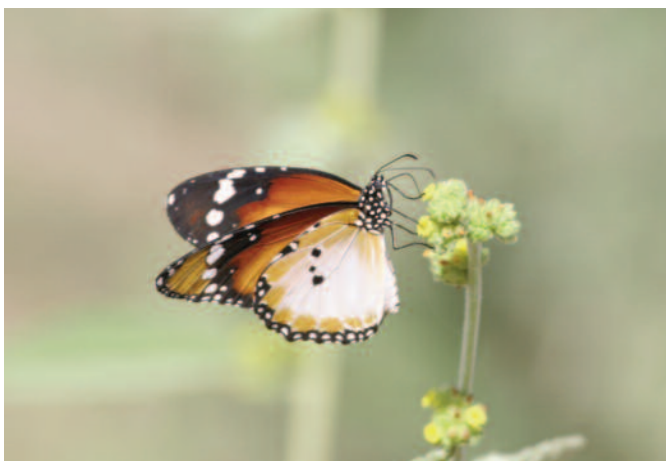


Alpine plant close-up Wisley
 Winner: Driven to Abstraction © - Lesley Hawker

Photographic Competition 2013: Winning photographs continued and photographs from outings



Guelder Rose, Aston Rowant NNR
Winner: Pattern Perfect © - Ian Esland



Plain Tiger, Yundum, The Gambia:
Winner: Colour Prejudice © - Ian Esland

Orderly Terrapin queue, butterfly house, Sheffield
Winner: Something to make you smile © - Grahame Hawker



Photographs from excursions



Normandina pulchella
University of Reading, 21 Sep 14 © - Fay Newbery



Riverside Snowdrops
River Lambourn near Bagnor, 19 Feb 14 © - Jan Haseler



< Duke of Burgundy
Porton Down, 1 Jun 14 © - Rob Stallard



Lady Orchid
Porton Down, 1 Jun 14 © - Laurie Haseler



Splendid Brocade
Hartslock, 19/20 Jul 14 © - Norman Hall



Marsh Gentian
Chobham Common, 23 Aug 14 © - Chris Ash



Burnt Orchids
Ladle Hill, 29 Jun 14 © - Laurie Haseler



Bluebells
Woodcote, 16 Apr 14 © - Rob Stallard



Four Spotted Chaser
Bramshill, 21 May 14 © - Ian Duddle



Ramalina fastigiata
University of Reading, 21 Sep 14 © - Sue White



Lepiota ignivolva
Nettlebed, 2 Nov 14 © - Laurie Haseler



Female Mandarin duck
Kennett & Avon Canal, 7 Dec 14 © - Laurie Haseler



Stigmella aceris
Dinton Pastures, 11 Oct 14 © - Jon Cole



Common Frog
Maiden Erleigh, 12 April 14 © - Chris Ash



Mullein caterpillar on Figwort
Moorend Common, 18 Jun 14 © - Rob Stallard

There followed a poetry reading session when a number of poems on a natural history theme were read out including one written by a member.

Photographic Competition 2014

Finally David Cliffe, who organised the photograph competition this year, announced the category winners:

"Small is Beautiful"	Richard Stansfield
"Little and Large"	Ian Esland
"Three of a Kind"	Richard Stansfield
"Nature in Action"	Richard Stansfield
"Driven to Abstraction"	Lesley Hawker
"Colour Prejudice"	Ian Esland (Laurie Haseler 2nd in the tie-break)
"Pattern Perfect"	Ian Esland
"Something to Make You Smile"	Grahame Hawker
"Best in Show"	Ian Esland (Lesley Hawker 2nd in the tie-break)

The Goldfish Gordon Crutchfield

Nobody ever records a Goldfish. Presumably, people with a garden pond regard them as too common to bother. But people often get fed up with garden ponds and release their fish (illegally) into nearby rivers or lakes. The fish are then very prone to predation. Not only are they badly camouflaged, but they are not used to an environment, where they have to be constantly on the lookout for Pike, Herons and Cormorants. But in good quality water, with an abundance of food, they can grow to a good size.

It was in the very early hours of 19/6/14, that I caught one weighing 4lb 8oz at Burghfield Gravel Pits. The fish was very round, with body depth virtually equal to the length, rather like a Crucian Carp. The long dorsal fin was concave and there was no barbel round the mouth. There was a black patch to the right of the mouth and the right pectoral fin was almost completely black. The rest of the fish was a bright gold colour. These features all tie in well with the description of a Goldfish in "Freshwater Fishes of Britain and Europe" by Alwyne Wheeler.

After being weighed, the fish was immediately returned to the lake. It's the first Goldfish I have caught in over 50 years of serious fishing. A fisherman's tale, you might think, but having returned the fish, I found it had lost a scale in my landing net. The scale has a lovely golden edge and I have kept it as a souvenir.

According to the internet the British record for a Goldfish caught by an angler seems to be 5lb 11oz. This monster fish was caught in a large Surrey pond in 1994. A more recent record of a 5lb fish was caught by 16 year old Nick Richards near Poole, Dorset in 2010. Goldfish can be long lived, so Gordon you could still break the record if you can catch this fish again next year!

TR (Vertebrates recorder)

RECORDER'S REPORT FOR LICHENS

Fay Newbery

Lichen activity locally seems to have centered on the Whiteknights University Campus again in 2014. The students on two MSc courses enjoyed a day learning about epiphytic (tree dwelling) lichens in February, one of the university's professors led a lichen walk for a local choir during the year and Fay Newbery led a lichen walk for the RDNHS on Sunday 21st September.

The RDNHS event, attended by 16 members, was very enjoyable. The weather was kind but anyone who attended hoping for an actual *walk* was probably disappointed as we didn't need to walk very far. Lichens were looked at on trees, kerb stones, walls, paint, metal, soil and rotting wood. Most of the major growth forms were seen: leprose, crustose, foliose, fruticose, gelatinous and Cladonia-type. Participants were also shown free-living examples of the kinds of algae that are involved in forming lichens, a bright pink fungus that lives on lichens and thalloid liverworts. More than 20 lichens species were seen and named.

During preparation for the walk, *Normandina pulchella* was discovered on a horse-chestnut tree in the Harris Garden. This is the first time that this species has been recorded in Berkshire (see photograph on Page 34). It is spreading into residential areas as a result of falling sulphur dioxide pollution. Some fruiting examples of *Ramalina fastigiata* were also seen and a small thallus of an *Usnea* species. These are lichens that require low levels of air pollution.

Lichens also featured in a talk at the society's AGM in March. A car, owned by a member in Earley, was the subject of an amusing talk illustrating the need for a field guide to lichens and mosses on cars. Sixteen lichens and five mosses inhabit the surfaces of this mobile environment, hampered in their colonization mainly by the owner's habit of carrying cut willow withes on the roof!

The species identified on the RDNHS walk 21 Sep 14 are listed below:

Arthonia radiata

Cladonia fimbriata

Cladonia floerkeana

Collema tenax

Evernia prunastri

Flavoparmelia caperata

Lecanora chlorotera

Lecidella elaeochroma

Lepraria incana

Melanelixia fuliginosa ssp. *glabratula*

Parmelia sulcata

Peltigera didactyla

Phycia adscendens

Phycia aipolia

Phycia caesia

Phycia tenella

Punctelia subrudecta

Ramalina farinacea

Ramalina fastigiata

Usnea sp.

Xanthoria parietina

RECORDER'S REPORT FOR BOTANY

Renée Grayer

After a very wet but mild winter, plants started flowering very early in 2014. For example, a red campion was in flower on 2nd January in my garden and a bulbous buttercup on 3rd February in Whiteknights! Most months were warmer than average and as a consequence 2014 was one of the warmest years on record for Britain. July was the hottest month, but there were no serious droughts, so that it was a good year for plants. They were still flowering late in the autumn thanks to a warm and sunny September and mild subsequent months.

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)

5. Equisetaceae

Equisetum telmateia Great Horsetail
18 May 14. Bramshill plantation, near pond. SU757619 (RS&RG)
20 Aug 14. RDNHS walk at Mortimer, Hundred Acre Piece. SU637650 (JH)
17 Sep 14. RDNHS walk at Paices Wood. SU587640 (JC&ID)

13. Aspleniaceae

Asplenium trichomanes Maidenhair Spleenwort
26 Jul 14. Kennet Canal Wall, Reading. SU722735 (DM)

16. Blechnaceae

Blechnum spicant Hard-fern
7 Sep 14. RDNHS trip to Snelsmore Common. SU460707 (approx.) (MK)

18. Dryopteridaceae

Dryopteris affinis Scaly Male-fern
8 Feb 14. RDNHS walk at Bradfield, Little Collier's Copse. SU581734 (LD)

Dryopteris cristata Crested Buckler-fern
17 Sep 14. California Country Park, Wokingham. SU782653 (RG&DM)

ANGIOSPERMAE (Flowering Plants)

30. Papaveraceae

Papaver hybridum Rough Poppy
29 Jun 14. RDNHS walk, Ladle Hill, Cornfield edge. SU482567 (JW)

Papaver argemone Prickly Poppy
29 Jun 14. RDNHS walk, Ladle Hill, Cornfield edge. SU482567 (JW)

Fumaria capreolata White Ramping-fumitory
25 May 14. Under hedge on Armour Hill, north facing. SU670744 (JC)

32. Ranunculaceae

Helleborus foetidus Stinking Hellebore
15 Jan 14. RDNHS walk to High Holies, Streatley, several clumps. SU592795 (JH)
19 Feb 14. RDNHS walk at Bagnor, two plants. SU449699 (JH)

Helleborus viridis* ssp. *occidentalis Green Hellebore
19 Feb 14. RDNHS walk at Mount Hill, Bagnor, about 40 plants. SU449699 (JH)

Myosurus minimus Mousetail
14 May 14. Whiteknights, behind greenhouses near the Harborne Building. SU735713 (FN). Also reported from the same location on 26 Sep 14 (DM)

Ranunculus auricomus Goldilocks Buttercup
19 Mar 14. RDNHS walk at Shiplake Woods. SU759795 (SH)
16 Apr 14. RDNHS walk at Woodcote. SU644828 (RS)
17 Apr 14. Pearman's Copse, Lower Earley, very abundant! SU736694 (RG)
24 Apr 14. Whiteknights, near the lake. SU73717189 (RG)

Ranunculus sceleratus Celery-leaved Buttercup
15 Jun 14. RDNHS walk to Cleeve water meadows, Streatley. SU597811 (SH)
17 Jul 14. Whiteknights, narrow end of the lake near small bridge. SU738715 (RG&DM)

Ranunculus omiophyllus Round-leaved
Crowfoot

18 May 14. Bramshill Plantation, in puddle on
footpath SU75186281 (RS&RG)

Ranunculus peltatus Pond Water-crowfoot
21 May 14. RDNHS walk at Bramshill
Plantation, in lake. SU74556280 (RS)

34. Buxaceae

Buxus sempervirens Box
3 Aug 14. RDNHS trip to Chalkhills,
Whitchurch-on-Thames. SU641778 (SR)

38. Saxifragaceae

Chrysosplenium oppositifolium Opposite-
leaved Golden-saxifrage
12 Apr 14. RDNHS trip to Maiden Erleigh
Nature Reserve. SU751711 (RG)

42. Fabaceae

Galega officinalis Goat's-rue
20 Aug 14. RDNHS walk, Mortimer, Hundred
Acre Piece. SU637650 (JH)

Genista anglica Petty Whin
18 June 14. RDNHS trip to South Meadow,
Moorend Common. SU802904 (CA)

Lathyrus linifolius Bitter-vetch
18 Jun 14. RDNHS trip to South Meadow,
Moorend Common. SU802904 (CA)

Lathyrus nissolia Grass Vetchling
10 Jun 14. Field by Clayfield Copse.
SU728769 (JW)
11 Jun 14. Reading, Fobney Island.
SU703710 (JL)
16 June 14. Paices Wood. SU5861 (JL)

Ornithopus perpusillus Bird's-foot
21 May 14. RDNHS walk at Bramshill
Plantation. SU752624 (RS)

Trifolium arvense Hare's-foot Clover
26 Aug 14. Whiteknights, lawn in front of
Hopkin's Building. SU736716 (DM)

44. Rosaceae

Crataegus laevigata Midland Hawthorn
20 May 14. Tagg Lane, Dunsden Green.
Damp ground on west side of lane. SU738775
(JW)

63. Violaceae

Viola palustris Marsh Violet
7 Sep 14. Snelsmore Common. SU460707
(approx.) (DM)

66. Geraniaceae

Geranium columbinum Long-stalked
Crane's-bill
29 May 14. Footpath nr Paddock Drive, Lower
Earley, many plants. SU757701 (RG)
29 May 14. Cutbush Lane, Lower Earley, one
plant. SU 754703 (RG)

Geranium lucidum Shining Crane's-bill
10 Jun 14. Grove Road, Sonning Common.
SU707800 (JW)
26 Jul 14. Shady crack in pavement, south
side of Kennet Canal, Reading. SU722735
(DM)

Geranium rotundifolium Round-leaved
Crane's-bill
9 May 14. Wokingham, Emm Brook area.
SU79806914 (RG)
19 Jun 14. Old Pond Copse, Earley.
SU75037103 (RG)
31 Jul 14. Whiteknights, Earley Gate area.
SU74207173 (RG)

67. Lythraceae

Lythrum portula Water-purslane
20 Aug 14. RDHNS walk, Mortimer, Holden's
Firs. SU642652 (JH)
7 Sep 14. RDNHS trip to Snelsmore Common.
SU460707 (approx.) (MK)

76. Thymelaeaceae

Daphne laureola Spurge-laurel
6 Jun 14. Lambourn Woodlands. SU331770
(JL)
3 Aug 14. RDNHS trip to Chalkhills,
Whitchurch-on-Thames. SU641778 (SR)

81. Brassicaceae

Diplotaxis tenuifolia Perennial Wall-rocket
31 Oct 14. Road verge on Reade's Lane,
Sonning Common. Still in flower in December.
SU704799 (JW)

Lepidium coronopus Swine-cress
17 Jul 14. RDNHS trip to Hambleden.
SU794867 (SH)
21 Aug 14. Chobham Common. SU97616607

(RG&DM&JC)

Rorippa palustris Marsh Yellow-cress
15 Jun 14. RDNHS trip to Cleeve Water
Meadows, Streatley. SU597811 (SH)

82. Santalaceae

Viscum album Mistletoe
11 Nov 14. Front garden in Avalon Road,
Earley, two big clumps on small tree (Apple?).
SU751713 (RG)

86. Polygonaceae

Rumex hydrolapathum Water Dock
9 May 14. Along the Emm Brook, Woosehill,
Wokingham. SU799691 (RG)
8 Aug 14. Fobney Island, Reading. SU700711
(RG&DM&JL)

Rumex palustris Marsh Dock
8 Aug 14. Fobney Island, Reading.
SU70067113 (DM)

87. Droseraceae

Drosera rotundifolia Round-leaved Sundew
13 Jul 14. Wishmoor. SU877632 (JL)
20 Jul 14. Wildmoor. SU 844631 (JL)
21 Aug 14. Chobham Common, many plants.
SU972661 (RG&DM&JC)
7 Sep 14. RDNHS trip to Snelsmore Common.
SU460707 (approx.) (MK)

Drosera intermedia Oblong-leaved Sundew
21 Aug 14. Chobham Common, only few
plants. SU97216618 (RG&DM&JC)

88. Caryophyllaceae

Cerastium arvense Field Mouse-ear
23 May 14. Ashton Upthorpe Downs, Juniper
Valley, abundant on loose soil around rabbit
burrows. SU54448336 (JH)

93. Montiaceae

Montia fontana Blinks
21 May 14. RDNHS trip to Bramshill
Plantation. SU756616 (RS)

99. Primulaceae

Anagallis tenella Bog Pimpernel
7 Sep 14. RDNHS trip to Snelsmore Common.
SU460707 (approx.) (MK)

101. Sarraceniaceae

Sarracenia flava Trumpets
23 Aug 14. Chobham Common, introduced
many years ago, but still surviving. SU965662
(approx.) (LM)

Sarracenia purpurea Pitcherplant
23 Aug 14. Chobham Common, introduced
many years ago, but still surviving. SU965662
(approx.) (LM)

105. Gentianaceae

Gentiana pneumonanthe Marsh Gentian
21 Aug 14. Chobham Common, near
Monument. Only four specimens.
SU96496563 (RG&DM&JC)

107. Boraginaceae

Cynoglossum officinale Hound's-tongue
3 Aug 14. RDNHS trip to Chalkhills,
Whitchurch-on-Thames. SU643778 (SR)

Lithospermum officinale Common
Gromwell
6 May 14. RDNHS trip to Hosehill Local
Nature Reserve. SU646696 (JL)
6 Jun 14. Cleeve Hill, strawberry field.
SU333765 (JL)

108. Convolvulaceae

Cuscuta europaea Greater Dodder
15 Jun 14. RDNHS trip Cleeve water
meadows, Streatley. SU597811 (SH)

109. Solanaceae

Atropa belladonna Deadly Nightshade
6 Jul 14. Hampstead Norreys, few patches
around barrow in wood. SU528760 (JL)
3 Aug 14. RDNHS trip to Chalkhills,
Whitchurch-on-Thames. SU641778 (SR)
14 Aug 14. Whiteknights, around
greenhouses near the Harborne Building.
SU735713 (DM)

Datura stramonium Thorn Apple
20 Jun 14. A few plants by a field gate,
Hazelmoor Lane, Gallowstree Common.
SU692801 (JW)

Solanum vernei Purple Potato
29 May 14. Lower Earley, footpath from
Paddick Drive to Cutbush Lane. Populations

holding on. SU756702 (RG).

113. Veronicaceae

Linaria repens Pale Toadflax

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU641777 (SR)

Chaenorhinum minus Small Toadflax

9 Jul 14. Whiteknights, greenhouse area near the Harborne Building. SU735713 (FN)

Kickxia elatine Sharp-leaved Fluellen

17 Jul 14. RDNHS walk at Hambleden. SU791866 (SH)

Veronica agrestis Green Field-speedwell

14 Aug 14. Whiteknights, around greenhouses near the Harborne Building. SU735713 (DM)

Veronica anagallis-aquatica Blue Water-speedwell

8 Aug 14. Fobney Island, Reading. SU702710 (RG&DM)

Veronica catenata Pink Water-speedwell

8 Aug 14. Fobney Island, Reading. SU702710 (RG&DM)

Veronica x lackschewitzii Hybrid Water-speedwell

8 Aug 14. Fobney Island, Reading. SU702710 (RG&DM)

Veronica peregrina American Speedwell

14 May 14. Whiteknights, greenhouse area near the Harborne Building. SU735713 (FN)

Veronica scutellata Marsh Speedwell

15 Jun 14. RDNHS trip to Cleeve water meadows, Streatley. SU597811 (SH)

118. Lamiaceae

Clinopodium acinos Basil Thyme

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU641777 (SR)

2 Sep 14. Holies, at least 8 plants in flower. SU59317987 (RS)

Clinopodium ascendens Common Calamint

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU641777 (SR)

Mentha pulegium Pennyroyal

14 Aug 14. Whiteknights, around greenhouses near the Harborne Building. SU735713 (DM)

17 Sep 14. California Country Park, near the lake. SU78456516 (DM&RG)

Nepeta cataria Cat-mint

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU643778 (SR)

Scutellaria minor Lesser Skullcap

15 Sep 14. Wasing Wood. SU578628 (approx.) (JL)

17 Sep 14. RDNHS walk at Wasing Wood. SU577632 (JC&ID)

121. Orobanchaceae

Pedicularis sylvatica Lousewort

18 May 14. Bramshill. SU75426279 (RS&RG)

25 May 14. RDNHS trip to Ron Ward's Meadow SU60076058 (GS)

126. Campanulaceae

Campanula glomerata Clustered Bellflower

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU640778 (SR)

30 Aug 14. Cleeve Hill, strawberry field. SU333766 (JL)

128. Asteraceae

Achillea ptarmica Sneezewort

18 Jun 14. RDNHS walk at South Meadows, Moorend. SU802904 (CA)

31 Jul 14. Whiteknights, in field near Friend's Bridge. SU73727172 (RG&DM)

17 Sep 14. California Country Park. SU783652 (DM&RG)

Bidens cernua Nodding Bur-marigold

8 Aug 14. Fobney Island, Reading. SU700711 (DM&JL&RG)

Carlina vulgaris Carline Thistle

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU640778 (SR)

21 Aug 14. Chobham Common. SU974658 (RG&DM&JC)

Cirsium eriophorum Woolly Thistle

30 Jul 14. The Holies. SU592798 (JL)

Filago minima Small Cudweed

14 Aug 14. Whiteknights, around greenhouses near the Harborne Building. SU735713 (DM)

Inula conyza Ploughman's-spikenard

17 Jul 14. RDNHS walk at Hambleden. SU788865 (SH)

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU643778 (SR)

Senecio aquaticus Marsh Ragwort

11 Jun 14. Footpath near Astor Close, Winnersh. SU787710 (RG)

Serratula tinctoria Saw-wort

23 Aug 14. RDNHS trip to Chobham Common. SU963657 (SR)

Solidago virgaurea Goldenrod

21 Aug 14. Chobham Common. SU96706584 (RG&DM&JC)

132. Valerianaceae

Valerianella carinata Keeled-fruited Cornsalad

12 Apr 14. Instow Road, garden of the Maiden Erleigh Interpretation Centre. SU750709 (RG)

138. Apiaceae

Anthriscus caucalis Bur Chervil

10 Jun 14. Field by Clayfield Copse. SU728769 (JW)

Conopodium majus Pignut

30 May 14. Oveys Wood. Locally frequent on foot path near large chalk pit. SU702831 (JW)

Silaum silaus Pepper-saxifrage

31 Jul 14. Whiteknights, in field near Friend's Bridge. SU73727172 (DM&RG)

140. Araceae

Lysichiton americanus American Skunk-cabbage

17 Jul 14. Whiteknights, along narrow end of the lake. SU738715 (RG&DM)

144. Butomaceae

Butomus umbellatus Flowering-rush

8 Aug 14. Fobney Island, Reading. SU70087111 (DM&RG)

150. Potamogetonaceae

Zannichellia palustris Horned Pondweed

17 Jul 14. Whiteknights, in shallow part of the lake. SU738716 (DM)

152. Nartheciaceae

Narthecium ossifragum Bog Asphodel

13 Jul 14. Wishmoor. SU877632 (JL)

21 Aug 14. Chobham Common. SU96996623 (RG&DM&JC)

7 Sep 14. RDNHS trip to Snelsmore Common. SU460707 (approx.) (MK)

158. Orchidaceae

Anacamptis pyramidalis Pyramidal Orchid

16 Jun 14. Paices Wood. SU5861 (JL)

20 Jun 14. Hosehill, two specimens in meadow. SU651697 (JL)

28 Jun 14. One plant. Small chalk pit west of Kennylands Road, Sonning Common. SU707795 (JW)

28 Jun 14. One plant. Field by sewage works, Sonning Common. SU716793 (JW)

29 Jun 14. RDNHS walk, Ladle Hill, on chalk grassland. SU477567 (JW)

17 Jul 14. RDNHS walk to Marlow Common, Homefield Wood. SU814867 (SH)

Cephalanthera damasonium White Helleborine

20 May 14. Kent's Hill Woods. 12 in flower. SU725809 (JW)

30 May 14. Oveys Wood. Locally frequent on and near large chalk pit. SU702831 (JW)

3 Aug 14. RDNHS trip to Chalkhills, Whitchurch-on-Thames. SU641778 (SR)

Dactylorhiza maculata Heath-spotted Orchid

25 May 14. Ron Ward's Meadow. SU60116068 (GS)

18 June 14. RDNHS walk, Moorend Common, North Meadows. SU804909 (CA)

7 Sep 14. RDNHS trip to Snelsmore Common. SU460707 (approx.) (MK)

D. praetermissa Southern Marsh-orchid

21 May 14. RDNHS walk at Bramshill Plantation. SU757619 (RS)

25 May 14. RDNHS trip to Ron Ward's Meadow. SU601606 (GS)

18 Jun 14. RDNHS walk, South Meadow, Moorend Common. SU802904 (CA)

Epipactis helleborine Broad-leaved Helleborine

13 Jul 14. Wishmoor, 6 spikes on more than 12 plants. SU874629 (JL)

16 Jul 14. Paices Wood, 31 plants, 7 in full flower. SU583637 (JL)

17 Jul 14. RDNHS walk at Marlow Common, Homefield Wood. SU814867 (SH)

17 Sep 14. RDNHS walk at Paices Wood. SU583635 (JC&ID)

Listera ovata Common Twayblade

20 May 14. Kent's Hill edge of scrub. 3 plants.
SU725809 (JW)

Neottia nidus-avis Bird's-nest Orchid
30 May. Oveys Wood, 3 plants in flower near
large chalkpit (last year 10 spikes in the area).
SU702831 (JW)

Ophrys apifera Bee Orchid
17 Jun 14. Over 80 in flower on north side,
Crowsley Park. SU733803 (JW)

Orchis mascula Early-purple Orchid
21 Apr 14. Gutteridge's Wood. 19 in flower, 57
non-flowering. SU790668 (JW)

Neotinia ustulata Burnt Orchid
23 May 14. Aston Upthorpe Downs, Juniper
Valley. 1 specimen at SU54548354,
SU54488345, SU54478343 and SU54348331;
2 specimens at SU54448336; 9 specimens at
SU54358331 (JH)
29.Jun.14 Ladle Hill. Numerous specimens
around SU47795675.(JH)

164. Typhaceae

Sparganium emersum Unbranched Bur-
reed
8 Aug 14. Fobney Island, Reading. SU702710
(DM)
4 Sep 14. Loddon near Sindlesham Mill.
SU767703 (DM)

169. Cyperaceae

Carex demissa Common Yellow-sedge
21 May 14. RDNHS walk at Bramshill
Plantation. SU757619 (RS)
25 May 14. RDNHS trip to Ron Ward's
Meadow. SU600605 (GS)

Carex echinata Star Sedge
21 May 14. RDNHS walk at Bramshill
Plantation. SU757619 (RS)
25 May 14. RDNHS trip to Ron Ward's
Meadow. SU600605 (GS)

Carex riparia Greater Pond-sedge
9 May 14. Near the Emm Brook, Wokingham.
SU799692 (RG)

Carex spicata Spiked Sedge
17 Jun 14. Locally frequent on south side,
Crowsley Park. SU732795 (JW)

Isolepis setacea Bristle Club-rush
17 Sep 14. California Country Park.
SU78236540 (DM&RG)

Rhynchospora alba White Beak-sedge
23 Aug 14. RDNHS trip to Chobham Common.
SU972653 (approx.) (RG)

170. Poaceae

Danthonia decumbens Heath-grass
17 Jun 14. Locally frequent on south side,
Crowsley Park. SU732795 (JW)

CONTRIBUTORS

Thanks are due to the following members for their submissions:

(CA) Chris Ash, (DM) David Morris, (FN) Fay Newbery, (GS) Graham Saunders, (ID) Ian Duddle,
(JC) Julia Cooper, (JH) Jan Haseler, (JL) John Lerpiniere, (JW) Janet and Jerry Welsh, (LD)
Lesley Dunlop, (LM) Lynne & Harry Matthews, (MK) Michael Keith-Lucas, (RG) Renée Grayer,
(RS) Rob Stallard, (SH) Sheelagh Hill, (SR) Sally Rankin.

RECORDER'S REPORT FOR MYCOLOGY

Gordon Crutchfield

September 2014 was one of the driest Septembers on record – just what fungi don't want. By the middle of the month, fungi were very few and far between. By contrast, October was wet, but it was midway through the month before woodland fungi began to recover from the dry conditions of September.

As luck would have it, we had arranged the usual RDNHS fungus foray for November 2nd. This was much later than usual, and fungi were abundant by then in Nettlebed Woods. With wet and mild conditions continuing through November, fungi continued to thrive throughout the month, until early December brought in colder weather.

The following list is a summary of some of the less common species found.

Boletales

Boletaceae

Suillus grevillei Larch Bolete. 2 Nov 14, Nettlebed Woods (RDNHS)

2014 seemed to be a poor year for *Boletus* species in general. They tend to be seen early in autumn, so the dry September probably didn't help.

Hygrocybe euroflavescens 25 Oct 14, Nettlebed Cricket Pitch (FSO)

Hygrocybe nigrescens Blackening Waxcap. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Hygrocybe vitellina 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Hygrocybe virginea Snowy Waxcap. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Russulales

Russulaceae

Russula aurora Dawn Brittlegill. 2 Nov 14, Nettlebed Woods (RDNHS)

Russula xerampelina Crab Brittlegill. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Russula sardonia Primrose Brittlegill. 10 Nov. 14, Greenacres Health Centre, Greenham (TVFG)

Lactarius citriolens 9 Nov 14, The Harris Garden, Whiteknights Park (AA)

A good record. I know it grows at Bowdown Woods at Greenham, but it's not common elsewhere.

Lactarius vietus Grey Milkcap. 19 November 14, California Country Park (GC)

Lactarius hepaticus Liver Milkcap. 10 November 14, Greenacres Health Centre, Greenham (TVFG)

Lactarius deterrimus False Saffron Milkcap. 10 November 14, Greenacres Health Centre, Greenham (TVFG)

Agaricales

Tricolomataceae

Clitocybe geotropa Trooping Funnel. 30 Oct 14, Clayfield Copse, Emmer Green (GC)

Clitocybe odora Aniseed Funnel. 2 Nov 14, Nettlebed Woods (RDNHS)

Collybia luteifolia 7 May 14, a window-box at Emmer Green (GC)

This species is superficially very similar to the common *C. dryophila*, but *C. luteifolia* has bright yellow gills and occurs in the spring.

Tricholoma argyraceum 2 Nov 14, Nettlebed Woods (RDNHS)

Tricholoma ustale Burnt Knight. 2 Nov 14, Nettlebed Woods (RDNHS)

Leucopaxillus

Leucopaxillus giganteus Giant Funnel. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Agaricales

Hygrophoraceae

Agaricales

Physalacriaceae

Flammulina velutipes Velvet Shank. 15 Dec 14, log pile, Emmer Green (GC)
This species is common on dead elm trees, but dead elm trees aren't as common as they were 40 years ago.

Agaricales

Mycenaceae

Mycena pelianthina Blackedge Bonnet. 2 Nov 14, Nettlebed Woods (RDNHS)
Mycena crocata Saffrondrop Bonnet. 30 Oct 14, Clayfield Copse (GC)
2 Nov 14, Nettlebed Woods (RDNHS)
M. crocata is common in the Chilterns, but much rarer elsewhere.

Agaricales

Entolomataceae

Entoloma rhodopolium Wood Pinkgill. 2 Nov 14, Nettlebed Woods (RDNHS)

Agaricales

Cortinariaceae

Cortinarius elegantissimus 2 Nov 14, Nettlebed Woods (RDNHS)
Cortinarius hinnuleus Earthy Webcap. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Agaricales

Hymenogastraceae

Galerina autumnalis 30 Nov 14, Clayfield Copse, Emmer Green (GC)
This is very similar to *G. marginata*. A number of books list *G. marginata* as a species growing on dead conifer wood. There are records of it growing on deciduous wood, but most authors now regard these records as dubious and believe the species on deciduous wood is *G. autumnalis*. Both should be regarded as deadly poisonous.

Hebeloma truncatum 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)
This is one of the easier *Hebelomas* to recognise. I've only ever found it on this site.

Agaricales

Inocybaceae

Inocybe rimosa Split Fibrecap. 2 Sept 14, Burghfield Gravel Pits (GC)
Inocybe geophylla White Fibrecap. 19 Sept 14, California Country Park (GC)
Inocybe griseolilacina Lilac Leg Fibrecap. 19 Sept 14, California Country Park (GC)
Inocybe lilacina Lilac Fibrecap. 30 Nov 14, Clayfield Copse, Emmer Green (GC)

Agaricales

Strophariaceae

Pholiota squarrosa Shaggy Scalycap. 30 Oct 14, Clayfield Copse, Emmer Green (GC)

Stropharia squamosa 14 Oct 14, Lambridge Wood, Bix (GC)
This species isn't common in this area.

Agaricales

Agaricaceae

Agaricus silvicola Wood Mushroom. 2 Nov 14, Nettlebed Woods (RDNHS)
Agaricus silvaticus Blushing Wood Mushroom. 10 Nov 14, Greenacres Health Centre, Greenham (TVFG)

Cystolepiota sistrata 2 Nov 14, Nettlebed Woods (RDNHS)

Lepiota ignivolvata 2 Nov 14, Nettlebed Woods (RDNHS)

This isn't a common species. I know it occurs at Lackmore Wood, Woodcote, but I've not found it before at Nettlebed.

Thelephorales

Thelephoraceae

Thelephora spiculosa 4 Sept 14, Burghfield Gravel Pits (GC)
This is a new find for me. Identity confirmed by (EJ).

Pezizales

Morchellaceae

Morchella costata 3 Apr 14, flower bed, Emmer Green (GC)

I am grateful to Fay Newbery for sending in these records of fungi which grow on the leaves of flowering plants – rusts, smuts, mildews and moulds.

Pucciniales

Pucciniaceae

Puccinia sessilis Arum Rust. 27 Apr 14, on living *Arum maculatum* leaves, woodland, Whiteknights Campus. For images see: <http://blogs.reading.ac.uk/whiteknightsbiodiversity/?s=puccinia+sessilis>

Puccinia polygoni-amphibii A rust. 23 Sept 14, on living *Fallopia convolvulus* leaves, beside pavement, Whiteknights Campus. There is only one another county record in the FRDBI (Reading, 1944).

Puccinia malvacearum Hollyhock Rust. 3 Apr 14, widespread, on living leaves of *Malva sylvestris*, waste ground, Whiteknights Campus.

Uromyces muscari Bluebell Rust. 19 Apr 14, on living *Hyacinthus non-scriptus* leaves, flowerbed, Whiteknights Campus.

Pirenales

Phyllactinaceae

Phyllactinia guttata A powdery mildew, very widespread in Reading, on living leaves of *Corylus avellana*. For images see: <http://blogs.reading.ac.uk/whiteknightsbiodiversity/?s=Phyllactinia+guttata>

CONTRIBUTORS

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RDNHS	Reading and District Natural History Society
TVFG	Thames Valley Fungus Group
AA	Alice Ayers
FN	Fay Newbery
FSO	Fungus Survey of Oxfordshire
EJ	Eric Janke

Capnodiales

Mycosphaerellaceae

Ramularia vallisumrosae A white mould, on living leaves of daffodils. Not previously recorded in Berkshire. Nearest record is FRDBI (Middlesex 2010).

Agaricomycotina

Bartheletiaceae

Bartheletia paradoxa On newly fallen leaves of *Ginkgo biloba*. 5 Dec 14 found beneath a tree on Whiteknights Campus; 10 Dec 14 beneath a tree on Upper Redlands Road, Reading. Not previously recorded in Berkshire. I expect that this is extremely widespread, and would welcome the chance to check anyone's *Ginkgo* leaves both this spring (if any remain) and next autumn. It was found by Arthur Chater in Ceredigion as soon as he heard about my find, and went to look under his two nearest *Ginkgo* trees in Aberystwyth. It was present beneath both! For images see: <http://blogs.reading.ac.uk/whiteknightsbiodiversity/?s=Bartheletia+paradoxa>

Pleospirales

Venturiaceae

Platychora ulmi 5 Dec 14, on living leaves of *Ulmus procera*, Upper Redlands Road and Whiteknights Road, Reading.

RECORDER'S REPORT FOR LEPIDOPTERA

Norman Hall

2014 was in general an unremarkable year for Lepidoptera. We may always remember the winter storms of January and February, but as there are few moths that only fly at that time of year anyway (such as the Spring Usher) and most things flying are hibernating adults that have woken up, the dearth of insects at the time was scarcely noticeable. March was quite sunny, and as it followed a warm winter, Spring came early. The number of species that emerged earlier than usual was remarkable. Jan Haseler, in particular in 2013, reported that many species had emerged remarkably early, often earlier than in any previous year, in her garden. This promised well for the summer - but the promise was not fulfilled – but if a typical British summer is a few sunny days and a thunderstorm, then at least we had several summers – and July was quite good overall. However, there were few occasions when moths were dispersing far from their breeding places, and almost no suggestion of long-distance migration. Hence, there were few surprising records.

It was lucky that we had fine weather for the RDNHS excursion to Porton Down on 1st June and the moth night at Hartslock on 19th July. Porton was amazing with spectacular numbers of day-flying Burnets and Forester Moth, serving as a 'background' to all the butterflies. At Hartslock, I caught a moth that was new to Oxfordshire (VC23) – the Splendid Brocade – and it was a red-letter day for me, but the moth, having only arrived in the country recently (in 2003 at Portland) is spreading NW and may well become common in our area in future. It has not yet been recorded in Berkshire (VC22) so it is something to look out for.

I also took part in 'Bioblitz's at Thatcham, Hosehill Lake (Theale) and Beale Park and the weather *nearly* co-operated for all three. The thundery night was good for the moths, but going through my traps in a two hour thunderstorm is not to be recommended.

Disappointingly, the season seemed to end prematurely at the end of October, after which I had difficulty catching any moth at all. I always look forward to the new year. We must get a super Summer some day.

A systematic list of this year's records of selected species follows. The species data comprises the Bradley number, the scientific name according to Agassiz, D.J.L.; Beavan, S.D.; Heckford, R.J., (2013), the English name, the numbers assigned by Agassiz et al., and the *national* status.

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. If there were other records outside the range of the records at Red Cow, the earliest and latest are reported also.

HEPIALIDAE

'Honorary' macros, which often fly at dusk, thus avoiding both birds and bats. 'Primitive' moths, having evolved little in the absence of these evolutionary pressures.

0016 *Phymatopus hecta* Gold Swift [03.004]
Local
19-Jun-14, Sandleford Heath SU48056466
(LLP)

03-Jul-14, Bowdown Woods SU50106560
(LLP)

0018 *Korscheltellus fusconebulosa* Map-winged Swift [03.003] Local
03-Jul-14, Bowdown Woods SU50106560
(LLP)

ZYGAENIDAE

'Honorary' macros. Day-flying and colourful.

0163 *Adscita statices* The Forester [54.002]
Local
11-Jun-14, daytime observation, Knowl Hill
Common SU82517937 (L.J.Finch)

LIMACODIDAE
'Honorary' macros.

0173 *Apoda limacodes* The Festoon [53.001]
NB
from 10-Jul-14 to 14-Jul-14, Red Cow
SU592868 (AR)
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

TINEIDAE
A family of micros, which includes the clothes
moths.

0224 *Triaxomera parasitella* [12.012] Local
25-May-14, Harcourt Drive (Earley)
SU73527096 (NMH)

GRACILLARIDAE
A family of micros. It includes the Horse
Chestnut Leaf Miner, which is disfiguring many
of our trees. They are characterised by having
larvae that change their form in a stage of their
growth. In the earliest stages ('instars') they
are 'flattened' – adapted to living in the surface
layers of a leaf. Then, after one of their skin
changes, they become more 'tubular' and
burrow deeper into the leaf. In some genera,
the larvae stay within one leaf and pupate
there. In others, they leave the leaf and then
feed externally.

0294 *Aspilapteryx tringipennella* [15.015]
Common
New for garden: 31-Jul-14, 2, actinic,
Westwood Road (Tilehurst) SU666742, (JH)

0365 *Phyllonorycter comparella* [15.087]
Nationally Scarce A
06-Sep-14, Beale Park SU620777, bioblitz:
mines found by Ian Sims.

ARGYRESTHIIDAE
Micros which usually adopt a strange posture
– head down, 'tail' up.

0409a *Argyresthia trifasciata* [20.005] Local
24-Jul-14, 8, actinic, Westwood Road
(Tilehurst) SU666742 (JH)

YPONOMEUTIDAE
This family includes the 'Small Ermine' moths,
basically white with black spots. They
sometimes create huge webs which can be
extended along hedgerows, and can even

envelop whole trees (or even cars!). N.B. they
are not the *only* larvae that make webs to
protect themselves from predators – and the
larvae and the food they need are both inside
the web. Some of the Small Ermine moths are
very difficult to tell apart, so it a great help
to know what their larvae were eating (which is
sometimes Spindle).

0430 *Yponomeuta plumbella* [16.007] Local
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

0431 *Yponomeuta sedella* [16.008] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

YPSOLOPHIDAE

0462 *Ypsolopha sequella* [17.012] Common
New for garden: 16-Aug-14, Westwood Road
(Tilehurst) SU666742 (JH)

GLYPHIPTERIGIDAE

0470 *Orthotelia sparganella* [19.001] Local
07-Aug-14, Thatcham Marsh SU50386672
(LLP)

YPONOMEUTIDAE

0473 *Acrolepiopsis assectella* Leek Moth
[19.011] Local
30 (2) & 31(1)-Mar-14, Harcourt Drive (Earley)
SU73527096 (NMH)

OECOPHORIDAE

0656 *Tachystola acroxantha* [28.024] Local
27-Sep-14, 23-Oct-14 & daily from 27-31 Oct-
14, Harcourt Drive (Earley) SU73527096
(NMH).
I knew that this insect, native to Australia, was
spreading in this country, but was surprised to
see it every day from 27-31-Oct-14 (NMH)

PELEOPODIDAE

0658 *Carcina quercana* [31.001] Common
Late record: 18-Oct-14, actinic, Westwood
Road (Tilehurst) SU666742

LIPUSIDAE

0661 *Pseudatemelia flavifrontella* [30.003]
Local
25-May-14, Harcourt Drive (Earley)
SU73527096 (NMH)

GELECHIIDAE

0861 *Acompsia schmidtii* [35.027]
Nationally Scarce B
19-Jul-14, 4, Hartslock SU61627954 (RDNHS)

COSMopterigidae

0894 *Cosmopterix zieglere* [34.005]
Nationally Scarce B
06-Sep-14, Beale Park SU620777, bioblitz,
mines found by Ian Sims.

TORTRICIDAE

1047 *Acleris schalleriana* [49.073] Local
15-Aug-14, Hosehill Lake SU646697, bioblitz
(Ian Sims)

1050 *Acleris kochiella* [49.085] Local
17-Jul-14, Red Cow SU592868 (AR)

1061 *Acleris literana* [49.087] Local
30 & 31-Mar-14, Harcourt Drive (Earley)
SU73527096 (NMH)
New for garden: 02-Apr-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

1068 *Celypha rivulana* [49.167] Local
15-Jul-14, Red Cow SU592868 (AR)

1135 *Epinotia demarniana* [49.243] Local
19-Jun-14, 2, Sandford Heath SU48056466
(LLP)

1262 *Cydia amplana* [49.343] Migrant
07-Aug-14, Thatcham Marsh SU50386672,
caught by NMH (LLP)

CRAMBIDAE

The Crambidae and the next family Pyralidae,
were usually treated as one family, the
Pyralidae, and books usually treat them
together. The Natural History Museum
considers them as a special family that is
neither macro nor micro. It includes many pest
species of economic importance.

1303 *Agriphila selasella* [63.092] Local
07-Aug-14, Thatcham Marsh SU50206675
(LLP)
15-Aug-14, 2, Hosehill Lake SU65186980,
bioblitz, (NMH)
23-Aug-14, Red Cow SU592868 (AR)

1329 *Donacaula forficella* [63.121] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

07-Aug-14, Thatcham Marsh SU50386672
(LLP)

1334A *Scoparia basistrigalis* [63.063] Local
10 & 17-Jul-14, Harcourt Drive (Earley)
SU73527096, (NMH)
19-Jul-14, Hartslock SU61627954 (RDNHS)

1336 *Eudonia pallida* [63.075] Local
30-Sep-14, Red Cow SU592868 (AR)

1350 *Nymphula nitidulata* [63.118] Local
29-Aug-14, Red Cow SU592868 (AR)

1366 *Pyrausta nigrata* [63.009] Local
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

1370 *Sitochroa palealis* [63.014] Local
04-Aug-14, Red Cow SU592868 (AR)

1395 *Udea ferrugalis* Rusty-dot Pearl [63.031]
Migrant
six records 07-Aug-14 to 01-Nov-14 (LLP, JH,
NMH)

1396 *Mecyna flavalis* [63.039] pRDB3
19-Jul-14, 21, Hartslock SU61627954
(RDNHS)

PYRALIDAE

1424 *Endotricha flammealis* [62.077] Common
18-Jul-14, Thatcham Marsh SU50386672,
NMH caught a totally melanic specimen, which
defied identification from a photograph. On
dissection, it was found to be flammealis. (Big
Nature Count, LLP)

1437 *Acrobasis consociella* [62.038] Local
03-Jul-14, 2, Bowdown Woods SU50106560
(LLP)

1438 *Acrobasis suavelle* [62.036] Local
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)
31-Jul-14, actinic, Westwood Road (Tilehurst)
SU666742, 2nd record for garden (JH)

1440 *Acrobasis marmorea* [62.037] Local
date not recorded, Red Cow SU592868 (AR)

1441 *Oncocera semirubella* [62.021]
Nationally Scarce B
02-Jul-14, field record, Lardon Chase
SU588809 (JH)
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)
19-Jul-14, 4, Hartslock SU61627954 (RDNHS)
Late record: 10-Oct-14, 2, field record, Lardon
Chase SU588809, latest ever record nationally

according to Tony Davis, who runs the pyralid moth recording scheme (JH).

This species has become well established in West Berkshire in the last few years, but I don't know whether it is now increasing nationally.

1442 *Pempelia palumbella* [62.023] Local
19-Jun-14, Sandleford Heath SU48056466 (LLP)

1465 *Nephoterix angustella* [62.032] Local
06-Sep-14, Beale Park SU620777, bioblitz (NMH)

1474 *Ephestia unicolorella* [62.065] Local
seven records from 29-May-14 to 21-Jun-14, Harcourt Drive (Earley) SU73527096 (NMH)
Probably no longer deserves its 'local' status.

PTEROPHORIDAE

1510 *Merrifieldia leucodactyla* Thyme Plume [45.033] Local
19-Jul-14, 8, Hartslock SU61627954 (RDNHS)

HESPERIIDAE

1526 *Thymelicus sylvestris* Small Skipper [57.006]
Red Cow, from 12-Jun-14 to 3-Aug-14, SU592868 (AR)
Latest sighting: 07-Aug-14, Brightwalton SU4279 (JL)

1527 *Thymelicus lineola* Essex Skipper [57.005]
Red Cow, from 1-Jul-14 to 3-Aug-14, SU592868 (AR)
Latest sightings: 07-Aug-14, Whatcombe, Brightwalton and Chaddleworth (JL)

1531 *Ochlodes sylvanus* Large Skipper [57.009]
Red Cow, from 7-Jun-14 to 25-Jul-14, SU592868 (AR)
Earliest sighting: 06-Jun-14, White Shute SU3377 (JL)

1532 *Erynnis tages* Dingy Skipper [57.001]
Red Cow, from 12-May-14 to 15-May-14, SU592868 (AR)
Earliest sightings: 04-May-14, Ufton Nervet, restored gravel pit SU638666 & Aldermaston, Easter Park SU614638 (JH)
Latest sightings: 06-Jun-14, 2, Crog Hill SU3283 & Thornhill Bank SU335769 (JL)

1534 *Pyrgus malvae* Grizzled Skipper [57.002]
High count: 04-May-14, 11, Ufton Nervet,

restored gravel pit SU638666 (JH)
Earliest sighting: 30-Apr-14, Ufton Nervet, restored gravel pit SU638666 (JH)
Latest sighting: 05-Jun-14, Kennet & Avon Canal, Towney Lock, Padworth SU610680 (JH)

PIERIDAE

1545 *Colias croceus* Clouded Yellow [58.010]
Red Cow, from 1-Aug-14 to 28-Oct-14 (an exceptionally late record), SU592868 (AR)
Earliest sighting: 30-Jul-14, The Holies SU5979 (JL)
Ten records elsewhere from 30-Jul-14 to 21-Aug-14, but none anything nearly as late as the record from Red Cow on 28-Oct-14

1546 *Gonepteryx rhamni* The Brimstone [58.013]
Earliest sighting: 04-Feb-14, Hosehill LNR SU651696, First sighting Meadow, per Adrian Lawson (JL)
Latest sighting: 31-Oct-14, 5, Basildon Park National Trust SU738712 (JH)

1549 *Pieris brassicae* Large White [58.006]
Earliest sighting: 31-May-14, Fognam SU2979 (JL)
Latest sighting: 03-Oct-14, Westwood Road (Tilehurst) SU666742 (JH)

1550 *Pieris rapae* Small White [58.007]
Earliest sighting: 30-Apr-14, Westwood Road (Tilehurst) SU666742 (JH)
Latest sighting: 16-Sep-14, 2, Stratfield Mortimer, St Mary's Church SU668641 (JH)

1551 *Pieris napi* Green-veined White [58.008]
Earliest sighting: 11-Apr-14, Kennet & Avon Canal, Towney Lock, Padworth SU650832 (JH)
Latest sighting: 15-Sep-14, Beech Hill, Elm Tree Inn SU695641 (JH)

1553 *Anthocharis cardamines* Orange Tip [58.003]
Red Cow, from 29-Mar-14 to 31-May-14, SU592868 (AR)
Earliest sighting: 07-Mar-14, 2, Reading SU7273 (JL)
Latest sightings: 31-May-14, 7, Crog Hill SU3283, 2, Fognam SU2979 (JL)

LYCAENIDAE

1555 *Callophrys rubi* Green Hairstreak [61.005]
Earliest sighting: 16-Apr-14, Aston Upthorpe,

northern bank SU548841 (JH)
Latest sighting: 31-May-14, Crog Hill SU3283 (JL)
Only one other record, 16-May-14, 4, Paices Wood SU5863 (JL)

1557 *Favonius quercus* Purple Hairstreak [61.004]
Earliest sighting: 17-Jul-14, Padworth Common SU618647 (JL)
Latest sighting: 07-Aug-14, 5, Chaddleworth SU4175 (JL)

1561 *Lycaena phlaeas* Small Copper [61.001]
Red Cow, from 21-Apr-14 to 22-Oct-14, SU592868 (AR)

1569 *Cupido minimus* Small Blue [61.010]
Earliest sighting: 16-May-14, 2, Sheepdrove SU3581 (JL)
Latest sighting: 30-Jul-14, 2, Lough Down SU5881 (JL)
High count: 21-May-14, 9, Sheepdrove SU3581, Emily Chambers, on transect (JL)

1571 *Plebejus argus* Silver-studded Blue [61.014]
Earliest sighting: 20-Jun-14, Broadmoor Bottom SU856628 (JL)
Latest sightings: 22-Jul-14, 2, Broadmoor Bottom SU8563, males, SU85616394 and SU85636288 (JL)
High count: 13-Jul-14, 20 at least, Wishmoor SU8763 (JL)
13-Jul-14, Broadmoor Bottom SU856628 (JL)
No other records submitted from other localities.

1572 *Aricia agestis* Brown Argus [61.015]
Red Cow, from 14-May-14 to 5-Oct-14, SU592868 (AR)
Earliest sighting: 04-May-14, Ufton Nervet, restored gravel pit SU638666 (JH)

1574 *Polyommatus icarus* Common Blue [61.018]
Red Cow, from 15-May-14 to 18-Oct-14, SU592868 (AR)

1575 *Polyommatus coridon* Chalk-hill Blue [61.020]
Red Cow, None, SU592868 (AR)
Earliest sighting: 30-Jun-14, 2, Lardon Chase, Streatley SU588809 (JH)
Latest sighting: 24-Sep-14, Watts Bank SU331771, female (JL)
High count: 31-Jul-14, 36, Lardon Chase, Streatley SU588809, Highest count (JH)

1576 *Polyommatus bellargus* Adonis Blue [61.019]
Two sightings only: 31-Jul-14, Lardon Chase, Streatley SU588809 (JH)
06-Sep-14, Lardon Chase, Streatley SU588809 (JH)

1580 *Celastrina argiolus* Holly Blue [61.012]
Red Cow, from 10-Apr-14 to 2-Sep-14, SU592868 (AR)

RIODINIDAE

1582 *Hamearis lucina* Duke of Burgundy [60.001]
Earliest sighting: 30-Apr-14, Scary Hill SU319842, with Dan Hoare (JL)
Latest sightings: 06-Jun-14, Scary Hill SU3284 & Crog Hill SU3283 (JL)
No other records from other localities

NYMPHALIDAE

1584 *Limenitis camilla* White Admiral [59.021]
Earliest sighting: 30-Jun-14, Mortimer West End, Simms Copse SU645636, First sighting (JH)
Latest sighting: 31-Jul-14, Paices Wood SU584634 (L Fricker) (JL)
five other records from Ufton Woods (Brent's Gully), Mortimer (Hundred Acre Piece), Ufton Court, Fence Wood & Sulham Woods SU6474 (JH, JL)

1585 *Apatura iris* Purple Emperor [59.022]
One only: 13-Jul-14, Wishmoor SU8763, flew head height straight across heath (JL)

1590 *Vanessa atalanta* Red Admiral [59.023]
Earliest sighting: 16-Feb-14, Padworth Common SU6264, per Tim Ball (JL)
Latest sighting: 31-Oct-14, 2, Basildon Park NT, NW SU606781 (JH)
High count: 10-Sep-14, 11, Peasemore Village SU458772 (JH)

1591 *Vanessa cardui* Painted Lady [59.024]
Red Cow, from 23-Jul-14 to 25-Jul-14, SU592868 (AR)
Earliest sighting: 19-May-14, Ufton Nervet, restored gravel pit SU638666 (JH)
Latest sighting: 08-Sep-14, Cholsey SU5985 (JL)
Three other records (JH, JL)

1593 *Aglais urticae* Small Tortoiseshell [59.027]
Red Cow, from 10-Feb-14 to 9-Nov-14, SU592868 (AR)

Earliest sighting: 22-Jan-14, Basildon Park NT, NE SU611783 (JH)

Latest sighting: 03-Dec-14, The Holies, Streatley SU594798 (JH)

Many other sightings

1597 *Aglais io* Peacock [59.026]

Earliest sighting: 24-Feb-14 in an Earley garden and a Tilehurst garden (JL)

Latest sighting: 31-Oct-14 at Basildon Park (JH)

1598 *Polygonia c-album* Comma [59.031]

Red Cow, from 9-Mar-14 to 9-Nov-14, SU592868 (AR)

Earliest sighting: 07-Mar-14, Basildon Park NT, SW SU605773 (JH)

1607 *Argynnis aglaja* Dark Green Fritillary [59.019]

Red Cow, one only, 17-Jul-14, SU592868 (AR)

Earliest sighting: 01-Jul-14, 3, Watts Bank SU331771, maybe as many as 5 (JL)

Latest sighting: 06-Aug-14, Caversham SU7076, Bugs Bottom (JL)

also seen on Aston Upthorpe Downs, Juniper Valley (JH)

1608 *Argynnis paphia* Silver-washed Fritillary [59.017]

Red Cow, None, Red Cow SU592868 (AR)

Earliest sighting: 29-Jun-14, 2, Decoy Heath SU6161632 (JL)

Latest sighting: 18-Aug-14, Burghfield Common, Scratchface Copse SU657674 (JH)

Also seen at Mortimer West End (Simms Copse), Wokefield Common, Moor Copse, Homefield Wood, Fence Wood, Farncombe, Tilehurst, Ashampstead, Stanford Dingley (Kings Copse), Furze Hill, Paices Wood, Bere Court, Chaddleworth & Burghfield Mill (JH, JL)

1614 *Pararge aegeria* Speckled Wood [59.003]

Red Cow, from 10-Apr-14 to 12-Sep-14, SU592868 (AR)

Latest sighting: 28-Oct-14, Harris Garden, University of Reading SU738712 (JH)

1620 *Melanargia galathea* Marbled White [59.012]

Red Cow, from 17-Jun-14 to 28-Jul-14, SU592868 (AR)

Latest sighting: 03-Aug-14, Whitchurch-on-Thames, Chalkhills, basin SU641778, Led by Sally Rankin (RDNHS)

High count: 24-Jun-14, 30, Padworth Village Hall field SU609678 (JH)

1621 *Hipparchia semele* Grayling [59.013]

5 records:

Earliest record: 06-Jul-14, Padworth Common, SW sector SU619645 (JH)

29-Jul-14, 3, Broadmoor Bottom SU856629 (JL)

06-Aug-14, Mortimer, Holden's Firs SU646655 (JH)

20-Aug-14, 4, Mortimer, Hundred Acre Piece, western bank SU633651, Last sighting and highest count (JH)

Latest record: 22-Aug-14, 2, Decoy Heath SU6163, SU611633, SU611632 (JL)

1625 *Pyronia tithonus* Gatekeeper [59.011]

Red Cow, from 1-Jul-14 to 22-Aug-14, SU592868 (AR)

Also seen on 01-Jul-14, Hosehill LNR, Theale, SW section SU649694 (JH)

1626 *Maniola jurtina* Meadow Brown [59.010]

Earliest sighting: 12-Jun-14, Shepperlands SU7764 (JL)

Latest sighting and High count: 18-Sep-14, 22, Aston Upthorpe Downs, Juniper Valley SU544832 (JH)

1627 *Coenonympha pamphilus* Small Heath [59.005]

Red Cow, from 3-Jul-14 to 15-Aug-14, SU592868 (AR)

Earliest sighting: 14-May-14, Kennet & Avon Canal, Towney Lock, Padworth SU610680 (JH)

Latest sighting: 24-Sep-14, Padworth, field south of Padworth Common SU621644 (JH)

1629 *Aphantopus hyperantus* Ringlet [59.009]

Red Cow, from-18-Jun-14 to 25-Jul-14, SU592868 (AR)

Earliest sightings: 16-Jun-14, Paices Wood SU5863 (JL) & Padworth Common SU6164 (JL)

Latest sighting: 07-Aug-14, Chaddleworth SU4175 (JL)

DREPANIDAE

1646 *Watsonalla binaria* Oak Hook-tip [65.002] Common

Late record: 25-Sep-14, actinic, Westwood Road (Tilehurst) SU666742 (JH). 10 examples in 2014 was also JH's highest ever year count, previous max 5.

1647 *Watsonalla cultraria* Barred Hook-tip [65.003] Local

19-Jul-14, 2, Hartslock SU61627954 (NMH)

07-Aug-14, actinic, Westwood Road (Tilehurst)

SU666742, 4th record for garden (JH)
06-Sep-14, Beale Park SU620777, bioblitz,
caught by Ian Sims.

GEOMETRIDAE

1667 *Comibaena bajularia* Blotched Emerald
[70.300] Local
19-Jun-14, 2, Sandleford Heath SU48056466
(LLP)

1673 *Hemistola chrysoprasaria* Small Emerald
[70.302] Local
09-Jul-14 (1), 11-Jul-14 (1), 12-Jul-14 (2), 16-
Jul-14 (1), Harcourt Drive (Earley)
SU73527096 (NMH)
19-Jul-14, Hartslock SU61627954 (RDNHS)

1676 *Cyclophora annularia* The Mocha
[70.031] NB
06-Sep-14, Beale Park SU620777, bioblitz
(NMH)

1677 *Cyclophora albipunctata* Birch Mocha
[70.032] Local
15-May-14, Greenham Common (Goldfinch
Bottom) SU50996428 (LLP)

1680 *Cyclophora punctaria* Maiden's Blush
[70.036] Local
7 records 28-May-14 to 06-Sep-14 Common in
our area, even if local nationally. (NMH)

1681 *Cyclophora linearia* Clay Triple-lines
[70.037] Local
New for garden: 03-Jul-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)
15-Aug-14, Hosehill Lake, bioblitz, SU646697
(Ian Sims)

1692 *Scopula immutata* Lesser Cream Wave
[70.025] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)
19-Jul-14, Hartslock SU61627954 (RDNHS)

1693 *Scopula floslactata* Cream Wave
[70.027] Local
15-May-14, Greenham Common (Goldfinch
Bottom) SU50996428 (LLP)

1699 *Idaea rusticata* Least Carpet [70.004]
Local
8-Jul-14 to 3-Aug-14, Red Cow SU592868
(AR)
10-Jul-14 to 19-Jul-2014, a total of 19
examples on five dates at Harcourt Drive
(Earley) SU73527096 (NMH)
Also seen at Westwood Road (Tilehurst),

Hartslock and Beale Park.

1705 *Idaea fuscovenosa* Dwarf Cream Wave
[70.006] Local
09-Jul-14 to 17-Jul-14, a total of 11 examples
on six dates
Also seen at Thatcham Marsh SU50386672
(Big Nature Count, LLP)
and 19-Jul-14, 4, Hartslock SU61627954
(RDNHS). Nothing later than this.

1707 *Idaea seriata* Small Dusty Wave [70.008]
Common
Late record: 08-Oct-14, to a lighted window,
Westwood Road (Tilehurst) SU666742 (JH)

1711 *Idaea trigeminata* Treble Brown Spot
[70.012] Local
eight records from 23-May-14 to 03-Jul-14,
then a
Late record: 27-Sep-14, Harcourt Drive
(Earley) SU73527096 (NMH)

1712 *Idaea emarginata* Small Scallop [70.015]
Local
9-Jul-14 to 25-Jul-14, Red Cow SU592868
(AR)
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)
A galium feeder (NMH)

1713 *Idaea aversata* Riband Wave [70.016]
Common
Late record: 25-Sep-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

1715 *Idaea straminata* Plain Wave [70.018]
Local

19-Jun-14, 3, Sandleford Heath SU48056466
(LLP)
21-Jun-14, Harcourt Drive (Earley)
SU73527096 (NMH), but NMH had been at
Sandleford Heath on 19-Jun 14 and it is a
heathland species. The moth had presumably
been transported home somehow, but it was
good to know that the moth could be picked
out among many of the much commoner
Riband Waves even where it not expected to
occur.

1716 *Rhodometra sacraria* Vestal [70.038]
Immigrant
20-Jul-14, Red Cow SU592868 (AR)

1726 *Xanthorhoe quadrifasiata* Large Twin-
spot Carpet [70.055] Local
03-Jul-14, 3, Bowdown Woods SU50106560
(LLP)
05-Jul-14 to 16-Jul-14, Red Cow SU592868

(AR)
18-Jul-14, Thatcham Marsh SU50386672 (LLP)
19-Jul-14, Hartslock SU61627954 (RDNHS)

1731 *Scotopteryx bipunctaria* Chalk Carpet [70.043] NB
19-Jul-14, 5, Hartslock SU61627954 (RDNHS)

1757 *Eulithis mellinata* Spinach [70.092] Common
20-Jun-14, Red Cow SU592868, first record for site (AR)

1760 *Chloroclysta siterata* Red-green Carpet [70.095] Common
Early records: 29-Mar-14, actinic, Westwood Road (Tilehurst) SU666742 (JH) & 31-Mar-14, 2, Harcourt Drive (Earley) SU73527096 (NMH). No more seen until 15-May-14, Greenham Common (Goldfinch Bottom) SU50996428 (LLP)
This species normally appears in late September, overwinters as an adult and re-emerges in the Spring – but it is seldom seen as early as March (NMH)

1764 *Dysstroma truncata* Common Marbled Carpet [70.097] Common
Early record: 05-May-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)
Late record: 01-Nov-14, Harcourt Drive (Earley) SU73527096 (NMH)

1766 *Plemyria rubiginata* Blue-bordered Carpet [70.084] Local
21-Jun-14, Harcourt Drive (Earley) SU73527096 (NMH)
03-Jul-14, 2, Bowdown Woods SU50106560 (LLP)

1771A *Thera cupressata* Cypress Carpet [70.083] Uncommon
26-Oct-14, Harcourt Drive (Earley) SU73527096 (NMH)

1782 *Horisme tersata* The Fern [70.127] Common
First record for site: 11-Jun-14, 1, 1-Jul-14, 1, & 10-Jul-14, 1, Red Cow SU592868 (AR)
19-Jun-14, Sandleford Heath SU48056466 (LLP)
19-Jul-14, 7, Hartslock SU61627954 (RDNHS)

1789 *Hydria undulata* Scallop Shell [70.121] Local
03-Jul-14, Bowdown Woods SU50106560 (LLP)

1791 *Philereme vetulata* Brown Scallop [70.118] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)
19-Jul-14, Hartslock SU61627954 (RDNHS)
Both this and the next species *transversata* feed on *Rhamnus cathartica* (buckthorn) and so are not uncommon on the Chalk. (NMH)

1792 *Philereme transversata* Dark Umber [70.119] Local
12-Jul-14, Harcourt Drive (Earley) SU73527096 (NMH)
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, NMH)
19-Jul-14, 7, Hartslock SU61627954 (RDNHS)

1794 *Euphyia unangulata* Sharp-angled Carpet [70.065] Local
19-Jun-14, Sandleford Heath SU48056466 (LLP)

1807 *Perizoma albulata* Grass Rivulet [70.137] Local
15-May-14 to 7-Jun-14, Red Cow SU592868 (AR)

1812 *Eupithecia inturbata* Maple Pug [70.148] Local
18-Jul-14, Thatcham Marsh SU50386672, dissected to confirm (Big Nature Count, LLP)

1813 *Eupithecia haworthiata* Haworth's Pug [70.146] Local
19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

1817 *Eupithecia pulchellata* Foxglove Pug [70.151] Common
Early record: 17-Apr-14, Westwood Road (Tilehurst) SU666742 (JH)

1835 *Eupithecia tripunctaria* White-spotted pug [70.160] Local
10-Jul-14, 2 & 29-Jul-14, 1, Red Cow SU592868 (AR)

1855 *Eupithecia phoeniceata* Cypress Pug [70.159] Uncommon
28-Sep-14, Harcourt Drive (Earley) SU73527096 (NMH)

1861 *Pasiphila debiliata* Bilberry Pug [70.145] NB
19-Jun-14, Sandleford Heath SU48056466 (LLP)
Caught by Roy Dobson. First record in VC22 since 1986.

1862 *Gymnoscelis rufifasciata* Double-striped

Pug [70.141] Common

Late record: 23-Oct-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

1874 *Euchoeca nebulata* Dingy Shell [70.112] Local

03-Jul-14, 12, Bowdown Woods SU50106560 (LLP)

18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)

07-Aug-14, Thatcham Marsh SU50386672 (LLP)

1879 *Lobophora halterata* The Seraphim [70.198] Local

08-May-14, Thatcham Marsh SU50206675 (LLP)

1882 *Pterapherapteryx sexalata* Small Seraphim [70.199] Local

eight records between 15-May-14 and 04-Sep-14.

Fairly common in our area despite national status.

1883 *Acasis viretata* Yellow-barred Brindle [70.200] Local

08-May-14, Thatcham Marsh SU50206675 (LLP)

29-Jul-14, Red Cow SU592868 (AR)

1888 *Ligdia adustata* Scorched Carpet [70.208] Local

19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

7-Aug-2014, 1, Red Cow SU592868 (AR)

1889 *Macaria notata* Peacock Moth [70.211] Local

07-Aug-14, Thatcham Marsh SU50386672 (LLP)

1890 *Macaria alternata* Sharp-angled Peacock [70.212] Local

18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)

07-Aug-14, Thatcham Marsh SU50386672, PB: 1 (LLP)

07-Aug-14, Thatcham Marsh SU50206675 (LLP)

15-Aug-14, Hosehill Lake SU646697, bioblitz (Ian Sims)

1903 *Plagodis pulveraria* Barred Umber [70.223] Local

15-May-14, Greenham Common (Goldfinch Bottom) SU50996428 (LLP)

First VC22 record since 2003. One to look out for (NMH)

1904 *Plagodis dolabraria* Scorched Wing [70.224] Local

15-May-14, 2, Greenham Common (Goldfinch Bottom) SU50996428 (LLP)

30-May-14, 3, 20-Jun-14, 1, Red Cow SU592868 (AR)

10-Jun-14, 12-Jun-14 & 13-Jun-14, Harcourt Drive (Earley) SU73527096 (NMH)

19-Jun-14, 2, Sandleford Heath SU48056466 (LLP)

1910 *Apeira syringaria* Lilac Beauty [70.231] Local

19-Jun-14, Sandleford Heath SU48056466 (LLP)

12-Jun-14, 1, 3-Jul-14, 1 & 16-Jul-14, 1, Red Cow SU592868 (AR)

1912 *Ennomos quercinaria* August Thorn [70.233] Local

16-Jul-14, 2, Harcourt Drive (Earley) SU73527096 (NMH)

17-Jul-14, Harcourt Drive (Earley) SU73527096 (NMH)

10-Jul-14 to 2-Sep-14, Red Cow SU592868 (AR)

1915 *Ennomos erosaria* September Thorn [70.236] Common

Aberration: 06-Sep-14, among 7, Beale Park SU620777, bioblitz, a specimen with converging lines on the forewings(NMH)

1922 *Ourapteryx sambucaria* Swallow-tailed Moth [70.243] Common

Second generation : 25-Sep-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

28-Sep-14 & 29-Sep-14, Harcourt Drive (Earley) SU73527096 (NMH)

1931 *Biston betularia* Peppered Moth [70.252] Common

Early record: 05-May-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

Black form: 03-Jul-14, actinic, Westwood Road (Tilehurst) SU666742, f.carbonaria (JH)

The black form seem to be declining (NMH)

1936 *Menophra abruptaria* Waved Umber [70.257] Common

Early record: 10-Apr-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

1950 *Parectropis similaria* Brindled White-spot [70.273] Local

19-Jun-14, Sandleford Heath SU48056466 (LLP)

1961 *Campaea margaritaria* Light Emerald
[70.283] Common
Extra generation?: six examples were reported
between 25 & 29-Sep-14

SPHINGIDAE

1978 *Sphinx pinastri* Pine Hawk-moth [69.007]
Local
eight records between 19-Jun-14 and 07-Aug-14.

New for garden: 11-Jul-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

1980 *Smerinthus ocellata* Eyed Hawk-moth
[69.002] Common
Early record: 15-May-14, Greenham Common
(Goldfinch Bottom) SU50996428 (LLP)
Fewer seen than expected in 2014 (NMH)

1984 *Macroglossum stellatarum* Humming-
bird Hawk-moth [69.010] Immigrant
9-May-14, 1, Red Cow SU592868 (AR)
11-Aug-14, 13-Sep-14, 26-Sep-14, field
records, Westwood Road (Tilehurst)
SU666742 (JH)
17-Aug-14, field record, The Holies SU594798
(JH)

1991 *Deilephila elpenor* Elephant Hawk-moth
[69.016] Common
Early record: 30-May-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

1992 *Deilephila porcellus* Small Elephant
Hawk-moth [69.017] Local
30-May-14 to 6-Jul-14, Red Cow SU592868
(AR)
10-Jun-14, Harcourt Drive (Earley)
SU73527096 (NMH)
19-Jun-14, Sandleford Heath SU48056466
(LLP)
27-Jun-14, Westwood Road (Tilehurst)
SU666742 (JH)
19-Jul-14, Hartslock SU61627954 (RDNHS)

NOTODONTIDAE

2005 *Peridea anceps* Great Prominent
[71.016] Local
15-May-14, 3, Greenham Common (Goldfinch
Bottom) SU50996428 (LLP)

2006 *Pheosia gnoma* Lesser Swallow
Prominent [71.018] Common
Early record: 05-May-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

2009 *Ptilodon cucullina* Maple Prominent

[71.022] Local

19-Jun-14, Sandleford Heath SU48056466
(LLP)

03-Jul-14, Bowdown Woods SU50106560
(LLP)

19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

15-Aug-14, 4, Hosehill Lake SU65186980,
bioblitz (NMH)

06-Sep-14, Beale Park SU620777, bioblitz
(NMH)

2019 *Clostera curtula* Chocolate-tip [71.027]
Local

Second generation: 03-Oct-14, actinic,
Westwood Road (Tilehurst) SU666742 (JH)

2029 *Euproctis chrysorrhoea* Brown-tail
[72.012] Local

19-Jul-14, Hartslock SU61627954 (RDNHS)

This is a pest species in some parts of the
country. Their caterpillars have stinging hairs,
which are bad for the eyes. But their numbers
have always been very low in the Reading
area and I am always pleased to see one
(NMH)

'NOCTUIDAE'

This large group has now been split into 3
families, but each family does not correspond
to a single contiguous sequence when species
are listed in Bradley order.

If the Agassiz numbers in square brackets
begin with 72 the species is now placed in
EREBIDAE. Similary 73 is used for species
that remain in NOCTUIDAE and 74 is the
smallest of the three families NOLIDAE.

2031 *Leucoma salicis* White Satin Moth
[72.009] Local

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

19-Jul-14, 2, Hartslock SU61627954 (RDNHS)

3-Jul-14 to 23-Jul-14, Red Cow SU592868
(AR)

2033 *Lymantria monacha* Black Arches
[72.010] Local

03-Jul-14, Bowdown Woods SU50106560
(LLP)

11-Jul-14, Harcourt Drive (Earley)
SU73527096 (NMH)

12-Jul-14, Harcourt Drive (Earley)
SU73527096 (NMH)

14-Jul-14, 2, Harcourt Drive (Earley)
SU73527096 (NMH)

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

19-Jul-14, 3, Hartslock SU61627954 (RDNHS)

24-Jul-14, Westwood Road (Tilehurst)

SU666742, 5th record for garden, last seen 2010 (JH)
15-Aug-14, 2, Hosehill Lake SU646697, bioblitz (Ian Sims)

2035 *Thumatha senex* Round-winged Muslin [72.037] Local
11-Jul-14, Red Cow SU592868 (AR)
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)
06-Sep-14, Beale Park SU620777, bioblitz (NMH)

2037 *Mitochondria miniata* Rosy Footman [72.035] Local
27-Jun-14, Westwood Road (Tilehurst) SU666742, New record for garden (JH)
03-Jul-14, 19, Bowdown Woods SU50106560 (LLP)
10, 11 & 16-Jul-14, Harcourt Drive (Earley) SU73527096 (NMH)
16-Jul-14, Red Cow SU592868 (AR)
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)
19-Jul-14, 4, Hartslock SU61627954 (RDNHS)

2040 *Cybosia mesomella* Four-dotted Footman [72.038] Local
19-Jun-14, 2, Sandleford Heath SU48056466 (LLP)

2043 *Eilema sororcula* Orange Footman [72.049] Local
15-May-14, Greenham Common (Goldfinch Bottom) SU50996428 (LLP)
30-May-14, Westwood Road (Tilehurst) SU666742, 4th record for garden, previous record 2010 (JH)
30-May-14, Harcourt Drive (Earley) SU73527096 (NMH)
19-Jun-14, 2, Sandleford Heath SU48056466 (LLP)

2045 *Eilema caniola* Hoary Footman [72.047] NB
13-Jun-14 (1), 11-Jul-14 (1), 16-Jul-14 (3), 17-Jul-14 (5) Harcourt Drive (Earley) SU73527096 (NMH)
19-Jul-14, Hartslock SU61627954 (RDNHS)
24-Jul-14, 2, actinic, Westwood Road (Tilehurst) SU666742, 5th record for garden, last seen 2010; also seen 31/7 (JH)
01-Oct-14, Harcourt Drive (Earley) SU73527096 (NMH)

2047 *Eilema complana* Scarce Footman [72.046] Local
nine records from 18-Jun-14 to 07-Aug-14. Common in our area despite its national

status.

2049 *Eilema depressa* Buff Footman [72.043] Local
03-Jul-14, Bowdown Woods SU50106560 (LLP)
12, 14 & 17-Jul-14, Harcourt Drive (Earley) SU73527096 (NMH)
19-Jul-14, 61, Hartslock SU61627954 (RDNHS)

2057 *Arctia caja* Garden Tiger [72.026] Common
25-Jul-14, Red Cow SU592868 (AR)
Supposedly common, but becoming increasingly uncommon.

2061 *Spilosoma lutea* Buff Ermine [72.019] Common
Early record: 20-May-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

2064 *Phragmatobia fuliginosa* Ruby Tiger [72.024] Common
Early record: 13-Apr-14, field record, Westwood Road (Tilehurst) SU666742 (JH)

2067 *Euplagia quadripunctaria* Jersey Tiger [72.030] NB
New for Garden: 24-Jul-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

2068 *Callimorpha dominula* Scarlet Tiger [72.029] Local
Earliest sighting: 27-Jun-14, 6, field record, Westwood Road (Tilehurst) SU666742 (JH)
Latest sighting: 18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)

2076 *Meganola albula* Kent Black Arches [74.002] NB
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)

2078 *Nola confusalis* Least Black Arches [74.004] Local
30-May-14, Westwood Road (Tilehurst) SU666742 (JH)

2091 *Agrotis ipsilon* Dark Sword-grass [73.327] Immigrant
13-Sep-14, Westwood Road (Tilehurst) SU666742 (JH)
02-Oct-14, Thatcham Marsh SU50206675 (LLP)

2092 *Agrotis puta* Shuttle-shaped Dart [73.325] Common
Early record: 19-Mar-14, actinic, Westwood

Road (Tilehurst) SU666742 (JH)
29-Oct-14, Harcourt Drive (Earley)
SU73527096, fresh (NMH)

2107 *Noctua pronuba* Large Yellow Underwing
[73.342] Common
High count: 04-Sep-14, 123, actinic,
Westwood Road (Tilehurst) SU666742 (JH)

2119 *Peridroma saucia* Pearly Underwing
[73.307] Immigrant
02-Oct-14, Thatcham Marsh SU50206675
(LLP)

2120 *Diarsia mendica* Ingrailed Clay [73.333]
Common
06-Jun-14, actinic, Westwood Road (Tilehurst)
SU666742, New record for garden (JH)

2126 *Xestia c-nigrum* Setaceous Hebrew
Character [73.359] Common
Late records: 30-Oct-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)
31-Oct-14, Harcourt Drive (Earley)
SU73527096 (NMH)

2134 *Xestia xanthographa* Square-spot Rustic
[73.357] Common
High count: 04-Sep-14, 64, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

2136 *Naenia typica* The Gothic [73.368] Local
10-Jul-14, Red Cow SU592868 (AR)

2138 *Anaplectoides prasina* Green Arches
[73.352] Common
03-Jul-14, Bowdown Woods SU50106560
(LLP)
New for site: 05-Jul-14, Red Cow SU592868
(AR)

2157 *Lacanobia w-latinum* Light Brocade
[73.263] Local
seven records from 15-May-14 to 15-Jun-14.

2160A *Lacanobia splendens* Splendid
Brocade [73.268] Recent arrival in UK
Most records from near the south coast, but
spreading inland and towards the north-west.
This was the first record for VC23
(Oxfordshire) – and it has yet to be seen in
VC22 (historic Berkshire).

2171 *Hadena confusa* Marbled Coronet
[73.283] Local
15-Jun-14, Red Cow SU592868 (AR)

2188 *Orthosia incerta* Clouded Drab [73.242]
Common

Early record: 06-Mar-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

2194 *Mythimna albipuncta* White-point
[73.297] Recent colonist
Records all falling between 13-Jun-14 and 17-
Jul-14 or between 14-Aug-14 and 01-Oct-14
High count: 06-Sep-14, 10, Beale Park
SU620777, bioblitz (NMH)

2196 *Mythimna pudorina* Striped Wainscot
[73.289] Local
15-Aug-14, Hosehill Lake SU646697, bioblitz
(Ian Sims)

2197 *Mythimna straminea* Southern Wainscot
[73.294] Local
14 & 17-Jul-14, Harcourt Drive (Earley)
SU73527096 (NMH)
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

2214 *Cucullia chamomillae* Chamomile Shark
[73.053] Local
19-Jul-14, Hartslock SU61627954 (RDNHS)

2236 *Lithophane socia* Pale Pinion [73.201]
Local
29-Mar-14, Westwood Road (Tilehurst)
SU666742 (JH)

2248 *Dryobotodes eremita* Brindled Green
[73.225] Common
Unusual form: 01-Nov-14, Harcourt Drive
(Earley) SU73527096, a fresh specimen
appearing grey in daylight (NMH)

2252 *Polymixis flavicincta* Large Ranunculus
[73.237] Local
25-Sep-14, 7, actinic, Westwood Road
(Tilehurst) SU666742 (JH)
27 & 29-Sep-14 & 03-Oct-14, Harcourt Drive
(Earley) SU73527096 (NMH)

2260 *Conistra rubiginea* Dotted Chestnut
[73.197] NB
31-Mar-14, Harcourt Drive (Earley)
SU73527096 (NMH)
6-Apr-14, 1, Red Cow SU592868 (AR)
Overwinters as an adult (NMH)

2268 *Parastichtis suspecta* The Suspected
[73.221] Local
03-Jul-14, Bowdown Woods SU50106560
(LLP)

2270 *Omphaloscelis lunosa* Lunar Underwing
[73.193] Common
Early record: 04-Sep-14, 9, actinic, Westwood

Road (Tilehurst) SU666742 (JH)

2275 *Cirrhia gilvago* Dusky-lemon Sallow [73.183] Local
30-Oct-14, Westwood Road (Tilehurst) SU666742 (JH)

2279 *Acronicta aceris* Sycamore [73.039] Local
Early record: 05-May-14, actinic, Westwood Road (Tilehurst) SU666742, (JH)
Six other records all between 12-Jul-14 and 19-Jul-14

2281 *Acronicta alni* Alder Moth [73.036] Local
15-May-14, Greenham Common (Goldfinch Bottom) SU50996428 (LLP)

2289 *Acronicta rumicis* Knot Grass [73.045] Common
Early record 10-Apr-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)

2291 *Craniophora ligustri* The Coronet [73.047] Local
eighteen records, over 130 individuals. Now very common in our area.

2292 *Cryphia algae* Tree-lichen Beauty [73.082] Immigrant
New for garden: 31-Jul-14, actinic, Westwood Road (Tilehurst) SU666742 (JH)
Also seen by Jon Cole. Details not available.

2300 *Mormo maura* Old Lady [73.107] Local
Early record: 11-Jul-14, actinic, Westwood Road (Tilehurst) SU666742, (JH)
High count: 04-Sep-14, 9, actinic, Westwood Road (Tilehurst) SU666742 (JH)
On 12-Aug-14, AR found one deep inside a baler. The species commonly aestivates in dark corners (NMH)

2301 *Dypterygia scabriuscula* Bird's Wing [73.105] Local
Seven records, earliest 10-Jun-14, latest 19-Jul-14

2312 *Ipimorpha subtusa* The Olive [73.213] Local
15-Jul-14, 1, Red Cow SU592868 (AR)

2314 *Apterogenum ypsilon* Dingy Shears [73.222] Local
12 & 13-Jun-14, Harcourt Drive (Earley) SU73527096 (NMH)
03-Jul-14, Westwood Road (Tilehurst) SU666742 (JH)
18-Jul-14, Thatcham Marsh SU50386672 (Big

Nature Count, LLP)

2316 *Cosmia affinis* Lesser-spotted Pinion [73.215] Local
14-Jul-14, Harcourt Drive (Earley) SU73527096 (NMH)

2319 *Cosmia pyralina* Lunar-spotted Pinion [73.217] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)

2323 *Apamea sublustri* Reddish Light Arches [73.164] Local
21-Jun-14, Harcourt Drive (Earley) SU73527096 (NMH)

2333 *Apamea anceps* Large Nutmeg [73.157] Local
15-Jun-14 to 9-Jul-14, Red Cow SU592868 (AR)
19-Jun-14, Sandleford Heath SU48056466 (LLP)

2362 *Hydraecia petasitis* The Butterbur [73.124] Local
18-Jul-14, Thatcham Marsh SU50386672, caught by NMH. (Big Nature Count, LLP)
15-Aug-14, Hosehill Lake, bioblitz, SU65186980, caught by Roy Dobson. (LLP)
04-Sep-14, Rowney Predator Lake SU56796637, caught by Roy Dobson. (LLP)
It was pleasing to see *petasitis* at three sites in the same year, especially at Hosehill, where we have not yet found the foodplant (NMH)

2368 *Helotropha leucostigma* The Crescent [73.119] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big Nature Count, LLP)
07-Aug-14, Thatcham Marsh SU50206675 (LLP)
07-Aug-14, 9, Thatcham Marsh SU50386672, PB: 1 (LLP)
15-Aug-14, Hosehill Lake SU646697, bioblitz (Ian Sims)
29-Jul-14 to 6-Aug-14, Red Cow SU592868 (AR)

2370 *Lenisa geminipuncta* Twin-spotted Wainscot [73.139] Local
07-Aug-14, Thatcham Marsh SU50206675 (LLP)
07-Aug-14, Thatcham Marsh SU50386672, PB: 1 (LLP)

2371 *Archana dissoluta* Brown-veined Wainscot [73.141] Local
18-Jul-14, Thatcham Marsh SU50386672 (Big

Nature Count, LLP)
07-Aug-14, 4, Thatcham Marsh SU50206675
& 50386672 (LLP)

2375 *Rhizodra lutosa* Large Wainscot [73.134]
Common

High count: 02-Oct-14, 14, Thatcham Marsh
SU50206675 (LLP)

2377 *Arenostola phragmitidis* Fen Wainscot
[73.137] Local

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

19-Jul-14, Hartslock SU61627954 (RDNHS)
07-Aug-14, Thatcham Marsh SU50206675 &
SU50386672 (LLP)

07-Aug-14, 3, Thatcham Marsh, PB: 1 (LLP)

2381 *Hoplodrina octogenaria* The Uncertain
[73.096] Common

Earliest: 10-Jun-14, Harcourt Drive (Earley)
SU73527096 (NMH)

2382 *Hoplodrina blanda* The Rustic [73.097]
Common

Earliest: 03-Jul-14, 2, Bowdown Woods
SU50106560, (LLP)

2384 *Hoplodrina ambigua* Vine's Rustic
[73.099] Local

Earliest: 23-May-14, Harcourt Drive (Earley)
SU73527096 (NMH)

Vine's Rustic, The Uncertain & The Rustic
usually appear in that order in the Spring.
Beginners and experts alike can find them
difficult to separate, but knowing that they
appear in that order is a great help in learning
to distinguish them in the Spring, especially as
freshly emerged species will be in good
condition.

2391 *Chilodes maritima* Silky Wainscot
[73.100] Local

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

2399 *Pyrrhia umbra* Bordered Sallow [73.070]
Local

11-Jul-14, Westwood Road (Tilehurst)
SU666742 (JH)

2421 *Bena bicolorana* Scarce Silver-lines
[74.007] Local

11-Jul-14, actinic, Westwood Road (Tilehurst)
SU666742 (JH)

16-Jul-14, 2, Red Cow SU592868 (AR)

2423 *Nycteola revayana* Oak Nycteoline
[74.009] Local

30 & 31-Mar-14, 9 in all, Harcourt Drive
(Earley) SU73527096 (NMH)

03-Jul-14, Bowdown Woods SU50106560
(NMH)

12-Jul-14, 2, Harcourt Drive (Earley)
SU73527096 (NMH)

2434 *Diachrysia chrysitis* Burnished Brass
[73.012] Common

Late record, 02-Oct-14, 2, Thatcham Marsh
SU50206675 (LLP)

2435 *Diachrysia chryson* Scarce Burnished
Brass [73.011] NA

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

A species now rarely seen despite the
abundance of its foodplant, Hemp Agrimony,
in the Kennet Valley (NMH)

2450 *Abrostola tripartita* The Spectacle
[73.001] Common

Early record: 17-Apr-14, actinic, Westwood
Road (Tilehurst) SU666742 (JH)

2466 *Lygephila pastinum* The Blackneck
[72.063] Local

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature EventLLP)

5-Jul-14, 1, Red Cow SU592868 (AR)

2470 *Phytometra viridaria* Small Purple-barred
[72.067] Local

19-Jul-14, 4, Hartslock SU61627954 (RDNHS)

2473 *Laspeyria flexula* Beautiful Hook-tip
[72.069] Local

Many records from 10-Jun-14 to 19-Jul-14 and
one second brood on 28-Sep-14.

Now common in our area

2475 *Parascotia fuliginaria* Waved Black
[72.066] NB

03-Jul-14, 2, Bowdown Woods SU50106560
(LLP)

12-Jul-14, 1, 17-Jul-14, 1, 20-Jul-14, 2, Red
Cow SU592868 (AR)

18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)

19-Jul-14, Hartslock SU61627954 (RDNHS)

2484 *Schrankia costaestrigalis* Pinion-
streaked Snout [72.061] Local

07-Aug-14, 2, Thatcham Marsh SU50386672
(LLP)

04-Sep-14, 2, Rowney Predator Lake
SU56796637 (LLP)

2485 *Hypenodes humidalis* Marsh Oblique-

barred [72.060] NB
18-Jul-14, Thatcham Marsh SU50386672 (Big
Nature Count, LLP)
Not recorded in VC22 since 2000 (NMH)

CONTRIBUTORS

Thanks are due to the following members for their submissions:
(AR) Tony Rayner, (JH) Jan Haseler, (JL) John Lerpiniere.

(RDNHS) denotes records from Reading & District Natural History Society field meetings.
(LLP) denotes records from Living Landscape Project mothwing nights in the Thatcham
/Greenham area, in which traps were run by Roger Stace, Rob Payne, Roy Dobson, Paul Black
and myself (NMH). I acted as recorder and Paul Black and I were the principal identifiers.

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, John Sumpter and Alan Parfitt 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

Exceptional local records

***Caprimulgus europaeus* Nightjar**

6/8/14 Adult and two chicks at Hundred Acre Piece SU633648 (JH)

***Athene noctua* Little Owl**

24/11/14 Two seen at Brightwell-cum-Sotwell SU5991 (TR)

***Cuculus canorus* Cuckoo**

30/4/14 One at Hundred Acre Piece SU639645 (JH)

Seen/heard on local RDNHS field trips or in members' gardens)

***Coturnix coturnix* Quail**

29/6/14 One heard at Ladle Hill, Kingsclere U483567 (JH)

***Luscinia megarhynchos* Nightingale**

6/5/14 At least 9 males singing at Hosehill SU652699 (JL)
21/5/14 One singing at Bramshill SU7562 (RS)

***Phoenicurus ochruros* Black Redstart**

31/10/14 to 2/11/14 a juvenile female frequenting our roof in Cholsey (TR/RR)

***Corvus corax* Raven**

15/10/14 One at Rotherfield Greys (SH)

***Tyto alba* Barn Owl**

18/6/14 to 25/6/14 One flying round our Cholsey meadow.(TR/RR/FR)

***Cettia cetti* Cetti's Warbler**

6/5/14 One at Hosehill SU652698 (JL)

***Milliaria calandra* Corn Bunting**

29/6/14 Two at Ladle Hill, Kingsclere SU4856 (JH)

FISH

***Gasterosteus aculeatus* Three-spined Stickleback**

29/3/14 to 23/8/14 57 individuals seen in the Sutton Courtenay EEC ponds SU501917 (Rd'A)

***Cyprinus carpio* Mirror Carp**

Present in large numbers at Upper Woodland Pond,
at Little Wittenham NR SU5693 (Rd'A)

***Perca fluviatilis* Perch**

20/5/14 Seen in a pond at Little Wittenham Manor SU566934 (Rd'A)

***Carassius auratus* Goldfish**

19/6/14 One caught at Burghfield (see article) (GC)

AMPHIBIANS

***Bufo bufo* Common Toad**

7/2/14 to 21/3/14 **2088** adults collected and carried across road at Oaken Wood, Hambledon. These were made up of 590 pairs, 594 single males and 314 single females. The maximum count was 466 on 15/3/14 It is also estimated that there were a maximum of 900 in the new ponds (JS/AP)

13/3/14 to 23/8/14 3 adults and 3 juveniles in a Didcot garden SU521895 (Rd'A)

18/3/14 **500** adults at Farley Hill collected in migration.

20/3/14 to 7/4/14 32 adults seen at Lower Pond, Greenmoor, Woodcote SU646813 (Rd'A)

2/4/14 Immature at Rushall Farm SU581727 (JL)

5/4/14 to 1/6/14 31 seen in Little Wittenham NR ponds SU5693 (Rd'A)

19/8/14 One in Caversham garden SU706755 (JL)

3/9/14 Adult at Burghfield Common SU645673 (JL)

19/9/14 Two in Cholsey garden (TR)

29/9/14 Adult in Cholsey garden (TR)

1/10/14 Immature at Paices Wood SU584638

(JL)

3/10/14 Immature in Cholsey meadow (TR)
21/10/14 Immature under Cholsey refuge (TR)
20/11/14 One at Oxford Rd Community
Garden SU727745 (JL)

***Triturus vulgaris* Smooth Newt**

Feb/Mar 10 adults carried across road at
Hambledon (JS/AP)
7/2/14 One under refuge at Decoy Heath
SU611633 (JL)
9/3/14 to 11/9/14 Total of 100 sightings in a
Didcot Garden new pond SU521895 (Rd/A)
29/3/14 to 4/6/14 Total of **498** sightings at
Sutton Courtenay EEC SU5091 (Rd/A)
3/5/14 Immature under refuge at Decoy Heath
SU611633 (JL)
5/4/14 to 31/5/14 Total of **451** sightings at Little
Wittenham NR SU5693 (Rd'A)
5/4/14 to 30/5/14 Total of 212 sightings at Hill
Farm, Little Wittenham SU563926 (Rd/A)
14/4/14 11 adults at Northend Pond, Turville
Heath SU734925 (Rd/A)
20/11/14 One at Oxford Rd Community
Garden SU727745 (JL)

***Triturus helveticus* Palmate Newt**

9/3/14 to 20/4/14 Eight adults in Didcot garden
SU521895 (Rd/A)
7/4/14 to 25/4/14 125 sightings mainly adults
with a maximum of 26 in one pond at
Greenmoor Woodcote SU646813 (Rd/A)
22/5/14 Three adults in Ibstone Common
ponds SU749938 (Rd/A)

***Triturus cristatus cristatus* Great Crested
Newt**

29/3/14 to 4/6/14 total of **840** sightings at
Sutton Courtenay EEC SU5091 (Rd'A)
5/4/14 to 29/5/14 Total of 145 sightings at Hill
Farm, Little Wittenham SU563926 (Rd'A)
9/4/14 to 2/11/14 Total of 35 sightings in Didcot
garden SU521895 (Rd'A)
April/May/14 Total of 259 sightings at Little
Wittenham NR SU5693 (Rd'A)
18/5/14 42 adults in Little Wittenham Manor
pond SU566934 (Rd'A)

***Rana temporaria* Common Frog**

Feb/Mar 64 adults carried across road at
Hambledon (JS/AP)
Every month – one or two in Tilehurst garden
SU664742 (JL)
7/3/14 Frogspawn in another Tilehurst garden
(JH)
8/3/14 to 17/3/14 spawning in Didcot garden,
40 frogs and 35 clumps of spawn SU521895
(Rd/A)
16/3/14 Three at Hundred Acre Piece,

Mortimer SU638651 (JH)

19/3/14 Frogspawn at Binfield Heath (CA/SH)
29/3/14 to 27/5/14 37 individuals plus spawn
at Sutton Courtenay EEC (Rd/A)
2/4/14 Immature at Rushall Farm SU581728
(JL)
3/4/14 One at 5-a-day Market Garden,
Englefield SU625719 (JL)
8/4/14 Adult in Cholsey garden pond (TR)
12/4/14 One in Maiden Erlegh woods
SU751711 (JH)
15/5/14 Two immature at Paices Wood
SU583635 (JL)
25/5/14 Some at Ron Ward's meadow, Tadley
(GS)
3/9/14 Adult in Cholsey garden (TR)
7/9/14 Two at Snelsmore SU461705 (JL)
14/9/14 Immature at Brimpton Common
SU580628 (JL)
12/10/14 Adult in Cholsey meadow (TR)
10/11/14 Adult in Cholsey garden pond (TR)
18/11/14 Adult at Furze Hill SU512741 (JL)
20/11/14 Seven at Oxford Rd Community
Garden SU727745 (JL)
9/11/14 A froglet in long grass in Cholsey
garden (TR)

***Rana ridibunda* Marsh Frog**

Adults in a Greenham Common pond east of
control
Tower. (BBOWT)

Frog sp (Pool/Marsh/Edible?)

21/5/14 Many at Bramshill Plantation
SU751625 (JH)

REPTILES

***Lacerta vivipara* Common Lizard**

21/2/14 to 3/5/14 & 4/7/14 15 sightings at
Greenham Common (Rd/A, MB & AB)
2/3/14 to 19/10/14 **707** sightings at Cholsey in
this period with a max. of 26 on 12/8/14. Easily
the best year recorded for this species (TR)
14/3/14 Two adults at Wokefield Common
SU6566 (JL)
15/4/14 One at Starvale Woods, Mortimer
SU652656 (JH)
2/6/14 Three at Paices Wood SU584638 (JL)
13/7/14 Adult at Wishmoor Bottom SU877632
(JL)
16/7/14 Four at Paices Wood SU584638 (JL)
31/7/14 Three juveniles at Paices Wood
SU583637 (JL)
7/9/14 One at Snelsmore Common (JL)
9/9/14 One at Holden's Firs, Mortimer
SU643652 (JH)

22/9/14 Three at Padworth Common SU6164 (JL)

***Anguis fragilis* Slow-worm**

22/2/14 to 21/10/14 A total of **4,436** sightings with a maximum count of 124 on 2/4/14 at Cholsey. This population continues to grow. The number of sightings is twice as many as the previous best year (2009) (TR)

19/3/14 Two adult males at Decoy Heath SU610634 (JL)

20/3/14 to 6/9/14 29 sightings at Chalkhills, Whitchurch (Rd/A)

29/3/14 to 2/11/14 Total of 159 sightings in Didcot Garden SU521895 (Rd/A)

186 sightings over 6 visits to Greenham Common (Rd/A, MB, AB)

4/4/14 Seven at Padworth Common SU6164 (JH)

9/4/14 Three adults in Tilehurst garden compost heap SU666742 (JH)

10/4/14 Seven at Decoy Heath SU6163 (JL)

10/4/14 Two males at Paices Wood SU583637 (JL)

13/4/14 Six at Padworth Common SU6164 (JL)

29/4/14 to 16/9/14 at least seven in Tilehurst garden SU664742 (JL)

29/5/14 Adult female at Inkpen Common SU382639 (JL)

5/6/14 Two at Wokefield Common SU6566 (JL)

16/6/14 Six at Decoy Heath SU6163 (JL)

3/7/14 One at Rushall Farm SU582724 (CM)

7/9/14 Two young at Snelsmore Common SU4670 (MKL)

***Natrix natrix* Grass Snake**

21/2/14 to 3/5/14 & 4/7/14 Eight sightings at Greenham Common (Rd/A, MB, AB)

10/3/14 to 21/10/14 a total of **426** sightings with a maximum of 17 on 11/4/14 at Cholsey site. A record year for this species. (TR)

9/5/14 Three adults at Paices Wood SU5863 (JL)

29/5/14 Two adults at Inkpen Common SU382639 (JL)

1/6/14 Two at Chalkhills, Whitchurch SU (Rd/A)

2/6/14 Four adults at Paices Wood SU583637 (JL)

8/6/14 Adult female at Hosehill LNR SU648694 (JL)

12/6/14 Two skins & tracks at Shepperlands SU780644 (JL)

16/6/14 Five at Paices Wood SU5863 (JL)

29/6/14 Immature at Decoy Heath SU612633 (JL)

14/7/14 Adult at Bowling Green Copse,

Streatley (AP)

14/8/14 One at Hampstead Norreys by the Pang SU534756 (JL)

2/9/14 One at Wokefield Common SU651663 (JL)

22/9/14 Adult at Padworth Common SU617646 (JL)

***Vipera berus* Adder**

21/2 to 3/5 & 4/7 Total of 18 individuals at Greenham Common (Rd/A, AB, MB)

8/3/14 Three at Snelsmore Common (MBr)

14/3/14 An adult female at Decoy Heath SU611634 (JL)

18/3/14 Three adults at Decoy Heath (Rd/A)

31/3/14 Juvenile female at Snelsmore Common SU460711 (MB)

4/4/14 Thirteen adults at Decoy Heath SU611634 9 (JL)

4/4/14 An adult female at Padworth Common SU618646 (JL)

5/6/14 Three females at Wokefield Common (*Not seen here for years*) (JL)

16/6/14 Three adults at Decoy Heath SU611634 (JL)

13/7/14 An adult female at Wishmoor Bottom SU875623 (JL)

17/7/14 Three adult females at Padworth Common SU6163 (JL)

2/9/14 Three adults at Decoy Heath SU461643 (JL)

24/9/14 Immature female at Padworth Common SU619644 (JL)

BATS

***Pipistrellus pipistrellus* Common Pipistrelle**

26/4/14 One at Sutton Courtenay EEC SU5091 (Rd/A)

28/4/14 Two by Lower Woodland Pond, Little Wittenham Wood SU5693 (Rd/A)

13/5/14 to 16/8/14 commonly seen & more numerous than recent years in Cholsey (TR).

6/6/14 One definite sighting at Mill Meadows, Henley (Rd/A, AP, KD)

***Pipistrellus pygmaeus* Soprano Pipistrelle**

6/6/14 to 30/7/14 Total of 5 sightings at Mill Meadows, Henley (Rd/A, AP, KD)

***Myotis daubentonii* Daubenton's**

10/5/14 Adult over Upper Woodland pool at Little Wittenham NR SU5693 (Rd/A)

6/6/14 to 30/7/14 Many over Thames by Mill Meadows, Henley (Rd/A, AP, KD)

***Plecotus auritus* Brown Long-eared Bat**

6/6/14 One at Mill Meadows, Henley (Rd/A,

AP, KD)

***Nyctalus noctula* Noctule**

5/6/14 Two at Cholsey (TR)
6/6/14 One at Mill Meadows, Henley (Rd/A, AP, KD)
2/7/14 to 17/7/14 seen on several evenings at Cholsey, with a peak of 12 on 10/7/14 (TR)

INSECTIVORES

***Erinaceus europaeus* Hedgehog**

26/1/14 One on the road at Cane End (Hd/A)
29/3/14 to 10/10/14 Eleven sightings in Didcot garden SU521895 (Rd/A)
17/4/14 A road kill at Aldermaston Wharf SU602672 (JL)
23/4/14 Adult road kill at Woodcote SU651822 (Rd/A)
24/4/14 A youngster by East End Farm (TR)
4/5/14 A road kill at Brightwalton SU432794 (JL)
12/5/14 A road kill at Cheiveley SU483729 (JL)
2/7/14 A road kill at Tilehurst SU693727 (JL)
5/7/14 Adult road kill at Woodcote SU648820 (Rd/A)
29/8/14 A road kill at Great Shefford SU384750 (JL)
29/8/14 A road kill at East Garston SU367762 (JL)
1/11/14 Adult road kill, Wallingford Rd Cholsey SU592870 (TR)

***Sorex araneus* Common Shrew**

6/2/14 to 19/10/14 Total of 36 sightings at Cholsey site (TR)
16/2/14 One under refuge at Paices Wood SU583637 (JL)
21/2/14 & 31/3/14 Two adults at Bowdown Heath (Rd/A & MB)
27/2/14 to 19/4/14 Three sightings at Chalkhills, Whitchurch (Rd'A)
12/3/14 Adult and juvenile at Paices Wood SU583637 (JL)
24/3/14 A corpse at Basildon Park SU605777 (JH)
15&17/7/14 One at Pingewood SU690708 (GC)
9/8/14 One dead on path at Decoy Heath SU612634 (JL)
8/11/14 Four adults under refuge at Hosehill LNR SU648694 (JL)

Pygmy Shrew

14/3/14 One under refuge at Hosehill LNR SU650694 (JL)
3/12/14 Two at Hosehill LNR SU652696 (JL)

***Neomys foedens* Water Shrew**

3/10/14 Adult at Cockpit Pond SU881981 (Rd/A)

***Talpa europaea* Mole**

1/2/14 15 hills at Hermitage Garden Centre SU500730 (JL)
1/2/14 20 hills at Hermitage SU503729 (JL)
3/2/14 15 hills at Lower Basildon SU612785 (JL)
15/6/14 Adult under a Cholsey reptile refuge (TR)
1/9/14 5 hills at Ashampstead Common SU587749 (JL)
28/9/14 30 hills at East Shefford SU388746 (JL)
30/10/14 9 hills at Moor Copse SU637736 (JL)
December 2014 Big increase in molehills at Cholsey site (TR)

CARNIVORES

***Meles meles* Badger**

3/2/14 Road kill at Lower Basildon SU614783 (JL)
6/2/14 Road kill at Woodcote SU652823 (Rd/A)
16/2/14 Road kill at Winterbrook, Cholsey SU600883 (Rd/A)
17/2/14 Road kill at Pangbourne SU619775 (JL)
19/2/14 Road kill at Sheephouse Farm, Cholsey SU567843 (Rd/A)
22/2/14 A road kill by Brook House, Cholsey SU596874 (TR)
18/3/14 Road kill at Pangbourne SU621775 (Rd/A)
27/4/14 Road kill by Cowfields Farm, Henley (Rd/A)
25/5/14 Road kill at Streatley SU585824 (JL)
2/6/14 Two road kills 50m apart at Burnt Hill SU5774 (JL)
13/6/14 Road kill at Burghfield SU663705 (JL)
7/7/14 Road kill at Woolhampton SU567667 (JL)
18/8/14 One at Chalkhouse Green SU710778 (GC)
8/12/14 Two road kills at Tidmarsh SU632735 (JL)

***Mustela nivalis* Weasel**

16/6/14 Two found under a Cholsey snake refuge together with vole prey.(TR)
19/6/14 One crossing the Westfield Road, Cholsey SU578850 (TR)
12/9/14 One dead on path at Decoy Heath SU612633 (JL)

***Mustela erminea* Stoat**

2/2/14 One near Newington SU604961

(RR/TR)

24/4/14 One in Longwater Road, Bracknell SU872675 (JL)

24/6/14 Road kill at Cholsey SU568841 (Rd/A)

7/8/14 A road kill at Chaddleworth SU408763 (JL)

***Mustela putorius* sp Polecat/Ferret**

All the following records were road kills:-

4/4/14 One at Welford SU419726 (JL)

4/4/14 One at Winterbourne SU4473 (JL)

15/4/14 One at Calcot SU647718 (JL)

23/10/14 One at Halfway SU418682 (JL)

13/11/14 One at Shefford Woodlands SU371724 (JL)

***Mustela vison* American Mink**

No records received

***Vulpes vulpes* Fox**

6/2/14 Road kill at Brightwell-cum-Sotwell SU589909 (Rd/A)

12/2/14 One eating birdfood in Tilehurst garden SU666742 (JH)

11/3/14 One crossing the road outside Pangbourne SU622774 (TR)

31/5/14 One at Scary Hill SU321846 (JL)

17/6/14 One at Pingewood SU693704 (GC)

19/6/14 One at Emmer Green SU715758 (GC)

21/6/14 One at Pingewood SU690708 (GC)

26/6/14 One at Southcote SU682718 (GC)

26/6/14 Road kill at Ashampstead Common SU576748 (JL)

12/7/14 One at Burghfield SU680707 (GC)

14/7/14 Road kill at Pangbourne SU620775 (JL)

5/8/14 Adult at Berinshill Wood SU661849 (Rd/A)

2/9/14 One at Tilehurst allotments SU670748 (JL)

9/10/14 Adult about to cross road on outskirts of Didcot SU538909 (Rd/A)

23/10/14 Road kill at Oare SU506742 (JL)

30/12/14 Adult sitting in Cholsey field SU594872 (TR)

***Lutra lutra* Otter**

No records received yet again.

***Rattus norvegicus* Brown Rat**

5/2/14 One at Emmer Green SU713767 (GC)

16/2/14 One at Crays Pond SU635807 (GC)

16/4/14 One at Emmer Green SU714771 (GC)

14/8/14 One at Emmer Green SU713767 (GC)

18/11/14 Two at Hosehill LNR SU647695 (JL)

5/12/14 One at Morrisons, Basingstoke Rd, Reading SU717711 (JH)

DEER

***Muntiacus reevesi* Muntjac**

21/2/14 Road kill at Bucklebury Common SU560693 (JL)

2/3/14 One at Hampstead Norreys SU528756 (JL)

14/4/14 Adult at Mortimer End Common SU802929 (Rd/A)

30/4/14 One at Chapel Row SU581699 (JL)

18/5/14 One at Emmer Green SU714773 (GC)

5/6/14 & 4/9/14 One at Pingewood SU691708 (GC)

1/7/14 One at Pingewood SU689708 (GC)

5/8/14 Adult at Three Corner Common, Stoke Row SU664847 (Rd/A)

19/8/14 Adult at Nettlebed Common SU702866 (Rd/A)

15/10/14 Two at Calcot SU646727 (JL)

22/10/14 One at Beenham SU585694 (JL)

25/10/14 One at Aldermaston SU592643 (JL)

9/11/14 Road kill at Streatley SU594800 (JL)

13/12/14 One at Woolhampton Gravel Pits SU570660 (JH)

***Capreolus capreolus* Roe Deer**

20/1/14 Four at Mount Hill, Bagnor SU447703 (JH)

28/3/14 Three at Basildon Park SU604780 (JH)

3/5/14 Adult at Crookham Common (Rd/A)

21/5/14 Three at Bramshill (RS)

25/5/14 One at Ron Ward's Meadow, Tadley (GS)

6/6/14 Three at Lambourn Woodlands SU332765 (JL)

7/8/14 Two in Cholsey meadow (TR)

30/8/14 One at Upper Bucklebury SU528694 (JL)

14/10/14 Two crossing Cholsey meadow (TR)

9/11/14 Four at Moor Copse SU638738 (JL)

25/11/14 One ran across Cholsey meadow at 7.45AM (TR)

31/12/14 Six seen from Westfield Road, Cholsey SU580848 (TW)

***Dama dama* Fallow Deer**

19/2/14 17 crossed the road by Padworth Common SU617645 (JL)

14/3/14 Road kill at Exlade Street SU665807 (Rd/A)

5/6/14 Adult hind at Chalkhills, Whitchurch – foot caught in fence Rd/A)

7/11/14 Herd at Ibstone on village green SU750926 (Rd/A)

***Cervus elaphus* Red Deer**

27/3/14 Two at Upper Bucklebury SU526694 (JL)

28/8/14 Three at Brimpton SU553639 (JL)

RABBITS & HARES

***Lepus europaeus* Brown Hare**

29/1/14 One on Mount Hill, Bagnor SU447703 (JH)
4/3/14 One on Cow Common, Well Barn Estate SU560819 (TR)
18/3/14 One at College Wood SU717912 (Rd/A)
25/3/14 Two at Englefield SU622708 (JL)
15/4/14 Two at Hungerford Newtown SU3571 (JL)
25/5/14 One at Hampstead Norreys SU530756 (JL)
2/6/14 One at Hook End SU590777 (JL)
15/6/14 Three in Cholsey paddock SU594868 (TR)
10/7/14 One in Cholsey paddock SU594868 (TR)
3/9/14 Three at Woolley Farm SU407794 (JH)

***Oryctolagus cuniculus* Rabbit**

14/3/14 One at Sonning Common SU701803 (Rd/A)
25/3/14 Seven at Englefield SU6270 (JL)
27/3/14 Three at Hermitage, Roebuck Wood SU5073 (JL)
29/3/14 Six at Peasemore SU469762 (JL)
30/4/14 Two at Bradfield Southend SU613730 (JL)
10/8/14 One at Bowling Green Copse, Streatley (Rd/A)

RODENTS

***Sciurus carolinensis* Grey Squirrel**

Up to three seen throughout the year at Cholsey (TR)
4/1/14 One at Hermitage SU500731 (JL)
10/1/14 One at Oare SU500738 (JL)
19/1/14 One at Padworth Common SU617652 (JL)
19/1/14 One at Tilehurst, Blundell's Copse SU674734 (JL)
13/2/14 One in Didcot garden SU521895 (Rd/A)
4/3/14 One at Hosehill LNR SU648694 (JL)
12/3/14 One at Yattendon SU553746 (JL)

***Apodemus sylvaticus* Wood Mouse**

18/1/14 One seen regularly from this date at Pierces Hill SU665742 (JL)
2/6/14 Family with 5 young at Paices Wood SU584636 (JL)
1/8/14 to 14/9/14 Five sightings at Chalkhills,Whitchurch (Rd/A)
5/8/14 to 5/10/14 Just 3 sightings beneath refuges at Cholsey (TR)

24/9/14 Two under refuge at Padworth Common SU6164 (JL)

28/9/14 Four at Sutton Courtenay EEC SU5091 (Rd/A)

12/7/14 One at Pingewood SU690708 (GC)

8/11/14 One under a refuge at Hosehill LNR SU652696 (JL)

9/11/14 Two in a dormouse box at Moor Copse SU6374 (JL)

***Muscardinus avellanarius* Dormouse**

April 14 Adult in nest on ground at Joyce Grove Triangle at Nettlebed Common (LS)

***Microtus agrestis* Field Vole**

23/1/14 to 20/10/14 Total of 84 sightings beneath refuges at Cholsey (TR)

27/2/14 to 6/9/14 Eight sightings at Chalkhills,Whitchurch (Rd/A)

4/3/14 Nine at Hosehill LNR SU648694 (JL)

31/3/14 One at both Bishop Green & Bowdown Heaths (Rd/A & MB)

10/7/14 Ten including six young at Woolhampton SU854796 (JL)

20/8/14 One at Southcote allotments SU688715 (JL)

6/9/14 Two under a refuge at Hosehill SU652696 (JL)

26/11/14 One at Wargrave Mumbery Field SU792782 (JL)

***Clethrionomys glareolus* Bank Vole**

23/1/14 to 20/10/14 Total of 289 sightings beneath refuges at Cholsey (TR).

11/1/14 One under refuge at Hosehill LNR SU648694 (JL)

3/4/14 One under a refuge at Englefield SU626719 (JL)

18/3/14 One at Warburg reserve SU717879 (Rd/A)

10/4/14 One at Paices Wood SU585635 (JL)

6/5/14 A family at Hosehill SU649694 (JL)

25/5/14 Road kill at Hampstead Norreys SU537752 (JL)

31/5/14 Two crossing the road at Lambourn Woodlands SU323793 (JL)

12/12/14 & 15/12/14 One attacked by a Robin under Cholsey bird feeder (RR/TR)

27/12/14 One dead at Sutton Courtenay EEC SU5091 (Rd/A)

***Arvicola terrestris* Water Vole**

Latrines & footprints at Sutton Courtenay EEC SU5091 (Rd/A)

CONTRIBUTORS

CA Chris Ash; **AB** Andrew Burdock; **MB** Martin Burdock; **MBr** Mark Bradfield; **GC** Gordon Crutchfield; **Hd/A** Helen D'Ayala; **Rd/A** Rod D'Ayala; **KD** Karin Derijck; **JH** Jan Haseler; **SH** Sheelagh Hill; **MJK** Michael Keith-Lucas **JL** John Lerpeniere; **CM** Cliff Marriott; **AP** Alan Parfitt; **FR** Fred Rayner; **RR** Ro Rayner; **TR** Tony Rayner; **LS** Liz Smeeton; **RS** Rod Stallard; **GS** Graham Saunders; **JS** John Sumpter; **TW** Tony Wheeler

THE WEATHER IN READING DURING 2014

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(Averages and anomalies mentioned in this report refer to the climatological period 1981-2010.)

2014 was a warm and wet year overall. A generally wet and stormy start to the year was reflected in the high rainfall total for the winter of 374.6 mm, which was just a little more than two and a quarter times the normal fall for winter. With half the remaining months being wetter than normal, particularly the late autumn period, the year (with 876.6 mm of rain) was the wettest at the University since 1951 (when 897.4 mm fell). The only other wetter year since 1901 was in 1903 when 961.4 mm fell. There was only one day when a light fall of sleet was observed (27 January) with no proper snowfall at all. Note that some areas in and around Reading were snow-free all year.

The year was about 0.2 degC cooler than in 2006 and was 0.1 degC warmer than in 2011, making it the second warmest year in the University record since 1908. Eleven months were warmer than average (August being the exception) and the summer continued in many ways into late October. Air frost was less common than usual; there was none in February and was recorded on only 22 nights – the lowest count since 22 days of air frost in 2002.

The sunshine total for the year was slightly higher than average, it being the sunniest year since 2007. After several years with few thundery outbreaks, the annual total of 19 days with thunder was the highest total since 23 days in 1983.

January

January was a mild, wet and, at times, a windy month. The total rainfall amounted to two and a half times the average for the month with measurable falls of 0.2 mm or more occurring on 26 days. There were only five air frosts and just one day with a very slight fall of sleet. In fact, this was to be the only wintry fall observed during the whole winter in Reading. It was the wettest January in the Reading record (dating back to 1901) with over 20 mm more rainfall than in 1995 (the previous wettest). Frequent windy spells saw gusts in excess of 50 mph in Reading. The mean MSL pressure at 0900 GMT was 1001.3 mb, over 15 mb below normal. In the past century only in 1948 was the January value lower than this.

February

February was the third consecutive very wet month, being the wettest February in the century-long Reading rainfall series with a total fall that was not far short of being three times the normal total for February. It was again a mild and windy month with the MSL pressure for the month being 997.6 mb at 0900 GMT. With a dominant air flow from the south-west and a lack of any settled, anticyclonic-type weather the air temperature remained above freezing point throughout the month.

March

Rainfall amounts were much lower in March – which ended up with about the half the expected rainfall for the month. March was again mild although three nights with air frost were recorded. Daytime temperatures were a remarkable 2.2 degC above average as spring seemed to arrive early, although the average minimum temperature by night was slightly lower than normal. March was also a sunny month – being the fifth sunny March this century. There were two light falls of dust from the Sahara observed in places around the town during the month, on the 18th and 31st.

April

After a dry, sunny and warm first half, late April brought a return to wet weather, although the mild conditions continued and the month was free of air frost. Thunder was heard on three days while the highest temperature observed during the month was lower than the highest noted in March.

May

Temperatures during May were only slightly warmer than normal due to some cool days. There was an air frost on the 3rd while seven days during the month had a ground frost. The rainfall total for the month was well above average while the sunshine total was slightly below average due to

a very dull final six days which began on a rather cool Late May Bank Holiday Monday.

June

June was only slightly warmer than average with the highest temperature being just below the highest recorded in May. The highest temperature of 24.3 °C was the lowest such value (along with 2013) in June since 1991. There was a ground frost on the 6th and overall the month was drier and sunnier than normal. In fact much of the rain fell overnight 13th/14th during a thunderstorm. There were four days with thunderstorms overall.

July

Summery conditions returned in July – which was dry and saw the highest temperature of 2014 at 28.6 °C. However, the warmth was spread throughout the month and there was no 'exceptional hot spell'; in fact early on there were a few cool nights and Reading only just missed have a ground frost on the 2nd. Thunder was heard on three days and the month was a very sunny one with 257 hours of bright sunshine.

August

August ended a run of eight consecutive warmer-than-average months in Reading. The month was unsettled, cool and wet with three nights having a slight ground frost. There were another four days with thunderstorms and one with hail. The month gave the coldest late August Bank Holiday weekend in the past 50 years with the exception of the weekends of 1979 and 1980, which were both just slightly colder. In fact the University recorded a ground frost on the Sunday morning. It was also the wettest August Bank Holiday Monday since 1986.

Overall the three summer months were slightly wetter, sunnier and warmer than usual with 11 days with thunderstorms being the highest summer count since 1983.

September

September was the driest month of the year in Reading with just 8 mm of rain falling. It was another warmer than average month and the highest temperature (25.3 °C) was higher than any air temperature recorded in August. Overnight 19th/20th the temperature fell no lower than 16.1 °C. Perhaps surprisingly, the sunshine total for the month was less than normal. Thus was the sixth driest September on record – although with ten times the rainfall total of September 1959.

October

October was a very mild month with the monthly mean temperature anomaly of +2.1 degC making it the sixth warmest October in the University record – although three of those have occurred this century. Although there were four ground frosts during the month, the highest air temperature occurred on Halloween (the 31st) when 21.7 °C was recorded – some 3 degC higher than had previously been recorded on that date at the University. The 27th and 28th (with air temperatures of 18.5 °C and 19.0 °C respectively), also formed part of a rather mild final week. Overall, the month was also wetter and slightly duller than usual.

November

Dull, wet and mild describes the weather of November in Reading. Ten days were sunless while the rainfall total was almost 50 per cent above average. There was high incidence of winds from both the east and southwest, although winds were generally light or moderate, thereby allowing fog to persist at 0900 GMT on five mornings in the month. Much of the lack of sunshine (as recorded by the Campbell-Stokes sunshine recorder) was due to large amounts either early or late on many days being lost due to the local tree-line.

December

December was the eleventh warmer-than-average month of 2014, although it did end with a short cold spell of weather. In fact, the final day of the month brought the lowest air temperature of the year with -5.5 °C being recorded. Overall the month was a dry one without any snowfall, and it was the sunniest December for six years. The average air pressure was higher than usual (one of the reasons for the extra sunshine) and winds were consequently lighter than normal.

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 you inbox.

		J	F	M	A	M	J	J	A	S	O	N	D	2014
Mean maximum temperature	°C	9.4	9.9	13.0	14.9	16.8	20.7	24.3	20.3	20.6	16.5	11.9	8.8	15.6
Mean maximum anomaly	degC	1.7	1.9	2.2	1.4	-0.2	0.7	1.9	-1.8	1.6	1.6	1.2	0.9	1.1
Mean minimum temperature	°C	2.7	3.9	3.3	6.1	8.2	10.9	13.4	11.3	10.9	10.1	5.9	2.3	7.4
Mean minimum anomaly	degC	0.8	2.2	-0.2	1.4	0.5	0.4	0.7	-1.2	0.6	2.5	1.5	0.1	0.7
Mean temperature	°C	6.0	6.9	8.2	10.5	12.5	15.8	18.9	15.8	15.8	13.3	8.9	5.5	11.5
Mean temperature anomaly	degC	1.3	2.1	1.0	1.4	0.1	0.5	1.3	-1.5	1.2	2.1	1.4	0.5	0.9
Highest temperature	°C	12.5	12.8	19.5	18.4	24.4	24.3	28.6	25.1	25.3	21.7	16.8	13.2	28.6
Date		5	24	30	2	19	23	24	7	18	31	1	18	
Lowest maximum temperature	°C	4.3	7.5	7.6	12.0	12.2	15.3	19.1	16.6	17.7	12.2	7.6	4.4	4.3
Date		30	13	1	25	2	4	8	21,26	21	14	25	27	
Highest minimum temperature	°C	9.0	7.4	8.5	11.8	12.1	14.1	17.9	16.3	16.1	15.3	12.6	11.1	17.9
Date		7	25	31	7	30	7	19	6	20	18	1	18	
Lowest temperature	°C	-3.8	1.3	-2.3	0.3	-0.4	5.3	8.1	5.6	4.7	1.4	-2.1	-5.5	-5.5
Date		12	16	24	16	3	6	2	20	23	5	25	31	
Lowest grass minimum temperature	°C	-8.4	-3.8	-8.1	-7.1	-7.6	-1.0	0.6	-1.0	-2.0	-4.4	-6.6	-9.8	-9.8
Date		12	16	24	15	3	6	2	21	25	5	24	29	

		J	F	M	A	M	J	J	A	S	O	N	D	2014
Total precipitation	mm	151.4	117.2	25.7	88.1	79.8	55.4	35.3	83.6	8.4	94.6	95.5	41.6	876.6
Percentage of the average precipitation	%	250	286	57	183	172	124	76	160	17	131	144	66	138
Number days with 0.2mm or more	days	26	23	10	13	17	11	9	18	5	21	23	10	186
Number of days with 1.0mm or more	days	24	18	8	12	15	7	6	13	4	17	16	8	148
Greatest fall in 24 hours	mm	16.0	24.9	8.4	16.3	14.6	32.6	12.9	19.2	2.5	15.1	12.7	11.1	32.6
Date		3	6	2	21	23	13	17	25	23	13	25	16	
Number of days with air frost	days	5	0	3	0	1	0	0	0	0	0	3	10	22
Number of days with ground frost	days	20	13	20	14	7	1	0	3	3	4	12	22	119
Number of days with snow/sleet falling	days	1	0	0	0	0	0	0	0	0	0	0	0	1
Number of days with 50% ground snow cover at 0900GMT	days	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of days with thunder	days	0	0	1	3	1	4	3	4	1	2	0	0	19
Number of days with ice pellets/small hail	days	1	1	2	2	1	0	0	0	0	0	0	0	7
Number of days with hail over 5mm diameter	days	2	2	1	0	1	0	0	1	0	0	0	0	7
Number of days with fog at 0900GMT	days	1	0	2	2	1	0	0	0	1	0	5	0	12

		J	F	M	A	M	J	J	A	S	O	N	D	2014
Total sunshine	h	60.5	98.9	144.3	150.1	183.8	224.3	257.4	193.1	123.7	99.3	38.2	62.2	1635.8
Percentage of average sunshine	%	107	130	132	93	97	118	130	100	89	93	60	135	107
Greatest daily sunshine total	h	5.5	8.1	10.7	13.0	13.3	14.1	14.3	12.1	9.1	7.6	5.2	5.3	14.3
Date		11,19	21	16	14,15	3	21	22	4	22	27	1	13,28	
Number of sunless days	days	9	4	2	4	5	0	0	2	3	8	10	8	55
Mean 10cm soil temperature	°C	4.6	4.7	5.8	10.3	13.4	17.7	19.9	16.3	15.4	12.2	8.2	4.5	11.1
Mean 30cm soil temperature	°C	6.2	6.2	7.5	10.7	13.3	16.7	18.7	17.2	16.4	13.9	10.5	7.1	10.9
Mean 100cm soil temperature	°C	7.7	7.1	7.9	10.0	12.1	14.9	16.9	16.9	16.2	14.7	12.3	9.4	12.2

		J	F	M	A	M	J	J	A	S	O	N	D	2014
Number of days with gale (x = no record)	days	x	0	0	0	0	0	0	0	0	0	0	0	X
Number of days with N'ly winds	days	1	0	2	7	5	5	6	0	3	0	2	0	31
Number of days with NE'ly winds	days	2	1	3	3	3	5	4	1	4	2	3	2	33
Number of days with E'ly winds	days	1	0	6	2	4	6	3	1	12	4	9	2	50
Number of days with SE'ly winds	days	2	2	4	0	0	3	0	1	1	2	4	2	21
Number of days with S'ly winds	days	12	10	5	11	10	3	0	8	1	4	0	0	64
Number of days with SW'ly winds	days	7	11	2	0	3	4	4	5	2	12	9	4	63
Number of days with W'ly winds	days	4	4	8	5	3	0	6	11	3	6	1	15	66
Number of days with NW'ly winds	days	1	0	1	2	1	4	8	4	3	1	2	6	33
Number of days with calm winds at 0900GMT	days	1	0	0	0	2	0	0	0	1	0	0	0	4