

The Reading Naturalist

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THE READING NATURALIST

No 66 for the year 2013

**The Journal of the
Reading and District Natural History Society**

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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 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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OBITUARY

Professor Christopher Bucke **15 January 1941 – 21 June 2013**

Chris was raised and educated in Douglas, Isle of Man. His knowledge of the island, almost totally self-taught, was intimate, extensive and carefully researched – its landscape, seascape, flora, fauna, pubs and oddities. He threw himself totally into the emerging freedoms of the 1950s, whether as student, museum volunteer, horse tram conductor, erratic tennis player or fungus forager and devourer. At Douglas High School for Boys, an early comprehensive school, he single-handedly challenged the well-established orthodoxy that 'boys don't do biology' and blazed a trail in the school for the study of the life sciences. He went on to study biochemistry at Liverpool University, conveniently (relatively speaking) based for regular returns to his beloved Island.

After gaining a PhD in plant biochemistry at Liverpool University in 1965, Chris moved to the University of York, before joining the Research and Development Division of Tate and Lyle at Keston in Kent in 1968. He came to Reading in 1972 when the R & D Division moved to the Whiteknights campus of the University of Reading. He worked on plant carbohydrate biochemistry and polysaccharide biochemistry. Major achievements included the development of an enzyme immobilisation method which was used commercially, the development of the calcium alginate method of cell immobilisation and the development up to pilot scale of a process for producing isomaltulose. He studied photosynthesis in sugar cane, enzyme production and bioconversions using immobilised enzymes and immobilised cells.

In 1985, Chris transferred to the Polytechnic of Central London (which later became the University of Westminster) as a Principal Lecturer and in 1988 was awarded a Professorship. He was a member of a number of scholarly societies, including the Biologicals Subcommittee of the Committee on Safety of Medicines and the Biotechnology Group of the Society of the Chemical Industry, which he chaired for many years. He was Editor or editorial board member of several journals in biotechnology. He worked with scientists around the world, and published with many. After retiring in September 2005, he continued to work on various committees and with several scientific journals. In 2012, he received the Distinguished Service Award from the Society of the Chemical Industry.

Chris was a man of many interests. He was a keen gardener and his own garden was full of unusual plants. He was a past President of Reading Gardeners and a member of the Alpine Garden Society, with whom he had a number of holidays to far-flung locations, including Nepal and Patagonia. He was a keen walker, a member of the Pang Valley Ramblers and a leader of holidays for the Ramblers Association. Chris took a keen interest in sport, including motor racing, cricket and football, in addition he was a lover of fine wine and real ale. He had a very catholic taste in music, ranging from Folk, Jazz and Swing through popular American music to Classical of all types.



He joined Reading and District Natural History Society in 1974 and served as President of the Society from 2004-6 and 2011-3. His lectures included 'Nepal in the Monsoon', 'The Natural History of the Isle of Man', 'Footprints in the Mud' (about microbiology and looking for new biologically active materials in Java), 'Patagonia in December', '(Mis)adventures in Tien Shan', 'How do plants do it? – Photosynthesis' and 'European Mountain Flowers'. The Society's 125th anniversary occurred during Chris' first Presidency. One of the anniversary projects was a hunt for the Society's logo, Herb Paris, including thorough searches of its historical locations. Chris joined in enthusiastically and also discovered the best site, Widmead Wood, a new location with thousands of plants near the Kennet and Avon Canal at Thatcham. Chris came on most of the Society's field trips. He was a great teacher, sharing his knowledge and love of the countryside. He could be relied on to

identify mystery plants or fungi. He could often be seen walking to the side of the main party, making his own discoveries – and then sharing them with the group. He led many field trips for the Society, often to new venues which he had discovered while out exploring on his own. In 2008, the Society started to lead natural history walks around the National Trust's Basildon Park and Chris regularly led the walk on the last Friday of the month.

Although Chris was poor in family, he was rich in friends from schooldays, universities and Tate and Lyle, as well as from the many groups of which he was a member. He contributed an enormous amount to Reading and District Natural History Society and will be greatly missed.

PRESIDENTIAL MUSINGS (Michael Keith-Lucas)

How to become a forensic botanist.

The direction in which a career goes often depends on opportunities that come up by pure chance and whether one is free enough at that moment to seize the opportunity. Having started out as a plant physiologist (having abandoned my medical degree with its human physiology, because plants don't bleed and scream), I worked for a PhD at Cambridge on how plants, and in particular, Primulas, are able to grow in low light. On my appointment to Reading I found that plant physiology was already well covered in the Department of Horticulture, so I moved into plant ecology, still specialising in woodlands, and, drawing on my experience of working alongside Oliver Rackham at Cambridge, I became interested in woodland history, looking at how long our ancient woodlands had been in existence. This led me in two directions. One was using pollen in sediments to look at prehistoric woodland history, which led me in turn to working alongside archaeologists investigating prehistoric sites. The other direction, still on woodland ecology, was the result of a chance vacancy on a World Bank scheme to upgrade teaching and research in the state universities of Indonesia, which led to a string of research students working on problems in tropical rainforest ecology. I found myself involved with questions like, is it better to produce a small amount of seed every year, a greater amount at long intervals, or a vast amount at the end of the tree's life?

The pollen work in turn led to continuous recording of pollen and spores in the air. I set up such a project in Jakarta, as I already had one running in Reading. This had further spin-offs, such as investigating allergy problems with the allergy unit of the Royal Berkshire Hospital, and investigating why only the Pakistani guest workers in Kuwait suffered from a pollen allergy, whereas no other nationality suffered (they had been sensitised to the pollen of a tree native to Pakistan in their childhood, and this was planted as a street tree in Kuwait). This in turn, along with questions being asked by archaeologists, led me into forensic work based on air-borne pollen, and hence into mainly insect-borne pollen on shoes and clothing. This also led to working with beekeepers on insect-borne pollen. The forensic work has all been comparatively recent, much of it since I 'retired'. There are very few of us doing this sort of work in this country, and most of us have come up through the same pathway of studying pollen on archaeological sites, or by working in plant anatomy in such places as the Jodrell Laboratory at Kew. The archaeologists often ask the same sorts of questions about ancient bodies as the police do about more recent ones.

University courses on forensic science are now very popular, but this side of the subject remains largely ignored, so I find myself often giving seminars on the topic for courses at other universities, as well to the police and judiciary, to make them aware of the potential of this type of evidence.

Hence my Presidential Address on 'How Plants solve Crime'.

THE FISHLOCK PRIZE

On Monday 25 March 2013, Professor Chris Bucke, the Vice-President of Reading and District Natural History Society, presented a cheque for £180.74 from the Society's Fishlock Fund to the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) at their Woolley Firs Environmental Education Centre near Maidenhead. Dr Kate Dent, BBOWT's Head of Conservation & Education for Berkshire, accepted the cheque on behalf of the Trust. Walter Fishlock (1875 – 1959) was a long-serving Secretary and former President of the Society. A fund



was set up in his memory to encourage the study and enjoyment of natural history by children under 12 years of age. The money will be used to help bring primary school children from Reading to Woolley Firs.

Prof Chris Bucke presents money from the Fishlock Fund to Dr Kate Dent at BBOWT's new Woolley Firs Education Centre

MEMBERSHIP

Norman Hall

Membership figures as they stand as at the end of December 2013

Single members	86
Family/Couples	68
Total	154

of which there were 19 new members:

Dr Chris Howlett	Dr Peter Spillett	Dr Monica Ashton
Mr Andrew Bolton	Mr Richard Bradbury	Joanna Cary
Mr Ian Esland	Keith Jefferies	Ms Ann McPherson
Janet Novak	Mr Brian Sargent	Mr Ian Sims
Dr Sue White	Mr Keith & Mrs Belinda Lugg	
Mr Jon & Mrs Mo Cole	Mr Dick & Mrs Christine Croker	

MEMBERS OBSERVATIONS

Ricki Bull

8 Jan

No observations - joint meeting led by RSPB

22 Jan

Jan Haseler – 7 Fieldfares in garden on apple tree.
 Roger Frankum – One Siskin in Bucklebury
 Chris Bucke – One Fieldfare in garden

Fred Taylor – 100+ Redwings near Thames in East Reading; 100+ Magpies in roost near Oxford; 24 Greenfinches feeding on Elm flowers; Alders along the river very red
Tony Raynor – Great Grey Shrike reported in Cholsey
Sally Rankin – Redpolls feeding
Michael Keith-Lucas – Many trees coming into flower; Hazel shedding pollen
Grahame Hawker – Reed Bunting and Goldcrests

5 Feb

Roger Frankum – 16 Siskins on Bucklebury feeder
Chris Bucke – Celandines and Snowdrops last Wednesday
Fred Taylor – Hazels have both red flowers and catkins
Sally Rankin – Grey Wagtail in Henley
Michael Keith-Lucas – Many trees coming into flower; Hazel shedding pollen
John Lerpiniere – 2 Oystercatchers and a Goosander on Theale Lake; Barn Owls in Bradfield; 2 Bitterns at Hosehill; 3 Bramblings at Englefield.

19 Feb

Martin Sell - 2 Whooper Swans at A4 near Beenham; 8 Waxwings - neighbour's garden in Caversham; 1 drake Scaup - Woolhampton gravel pits; 1 Sparrowhawk - spent 1/4 hour in their garden Caversham - bathing etc.; 1 Lesser Redpoll - Padworth Lane
Lesley Hawker - Lesser redpoll in their garden, Brimpton Common
Jan Haseler - Peacock butterfly at the Holies
Martin Sell & Ian Duddle - First honey bee on Crocus (Caversham/Tilehurst)
Graham Saunders - Robin collecting dog hair for nest building in garden - Tadley
Fred Taylor - 60 - 70 Fallow Deer at Binfield Heath.

5 March

Martin Sell - 3 Brimstones and a Comma in garden
John Lerpiniere – Small White
Renée Grayer – 2 Brimstones
Ken White – Tawny Owl chased from undergrowth by Carrion Crows
Liz Wild – 3 Commas in Harris Gardens
Julia Cooper – Barn Owl on Whitchurch fencepost today and after Martin Sell's outing.

1 Oct

Martin Sell – Small movement of birds through garden – flock of three Chiffchaffs, Goldfinches, Blue Tits
Sheelagh Hill – 25 holes in lawn, 2cm deep and in diameter; questioned what made them – suggestion was squirrels
Michael Keith-Lucas – Fox excavating in garden
Joanna Carey – Ring-necked Parakeet in garden in Harpsden Valley
Judy Sell – Badger in garden
Sally Rankin – Hedgehog in garden; juvenile and adult Grass Snake in July in Mill Meadows Henley.
Colin Dibb – Tree Bumblebee nesting in garden
Norman Hall – Moth traps in garden last weekend very good catches
Dick Croker – Large black Rabbit and also typically coloured Rabbit together at Basildon.

15 Oct

Dick Croker - Basildon Park, two white Pheasants, two Partridges
Martin Sell – 4 Chiffchaffs in garden
Ricki Bull – Cliff Marriott reported two sightings of a Hoopoe in Bradfield
Roger Frankum – Green Sandpiper
Jan Haseler – 2 Small White butterflies at Padworth today
Graham Saunders – Woodlarks singing at Tadley.

5 Nov

Sheelagh Hill – Heard Ring-necked Parakeet in garden (Binfield Heath)

Martin Sell – Lesser Spotted Woodpecker has been reported at Dinton Pastures
 Jon Cole – Pale green Weevil *Polydrusus impressifrons* new to the UK at Beale Park
 bioblitz in June
 Margaret Notton – 12 freshly hatched Rosemary Beetles in garden last week
 Jan Haseler – Abundant and varied Waxcaps in Moor Copse meadows on Saturday's
 walk. Waxcaps also reported in their lawns by Susan Twitchett and Michael Keith-
 Lucas
 Julia Cooper – Comma in Swallowfield on 23/10 and Red Admiral in Tilehurst last week.

19 Nov

Renée Grayer – Sparrowhawk in garden 18/11
 Susan Twitchett – White Deadnettle and Campion flowering on the Downs
 Dot Lincoln – Very few birds in the garden
 Rob Stallard – Bumblebees in the garden
 John Lerpiniere – Sparrowhawk in garden last week.

3 Dec

Renée Grayer – 20 plants of Wild Candytuft on Henley Road
 Jan Haseler – Sparrowhawk on patio plucking a Pigeon
 Terry Hemmett – Grey Squirrel nesting in a Barn Owl box had 6 young.
 Michael Keith-Lucas – Horse Chestnut in late flower.

EXCURSIONS

Jan Haseler

Sunday 27 January

The first field trip of 2013 was on Sunday 27 January, when Martin Sell led a joint field trip with the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) to Pennington Marshes and the New Forest. The morning was sunny, following heavy overnight rain. On the journey down, the River Test near Southampton and the Lymington River at Brockenhurst were both in flood and Pennington Lane too was flooded in places. There were Oystercatchers *Haematopus ostralegus*, Curlews *Numenius arquata*, Lapwings *Vanellus vanellus*, Redshanks *Tringa totanus* and Brent Geese *Branta bernicla* in the field to the north of the lane, while the flooded field to the south had many Wigeon *Anas penelope*, plus a few Pintail *A. acuta* and Shoveler *A. clypeata*. The 9-strong group walked out to the sea wall, where the tide was high. A flock of about 20 Turnstones *Arenaria interpres* were busily picking over the seaweed at the base of the wall. Out in the Solent, first one, then four, Slavonian Grebes *Podiceps auritus* were spotted. They had smart black caps and white necks, and through the telescope, it was even possible to see their red eyes. The Great Crested Grebe *P. cristatus* which swam up to join them was noticeably bigger. Next, a flock of about six Red-breasted Mergansers *Mergus serrator* was spotted. Their jagged crests could be picked out with the help of the telescope. A small grey bird with black legs at the base of the sea wall was identified as a Rock Pipit *Anthus petrosus*. The big pool on the landward side of the wall had a Little Egret *Egretta garzetta* and a number of Shelduck *Tadorna tadorna* and Teal *Anas crecca*, together with chuckling Brent Geese. Sally Rankin risked a soaking while picking Sea-purslane *Atriplex portulacoides*. Common Gorse *Ulex europaeus* was in flower, with a scent of coconut. Back at the cars for lunch, there was a brief shower.

After lunch, Martin's route through Brockenhurst to the final destination, Blackwater Arboretum in the New Forest, included the crossing of a perilously deep ford. On arrival, a Song Thrush *Turdus philomelos* was foraging next to the car park and a fallen twig was covered in an interesting collection of lichens. Some of the trees in the arboretum, including in particular a Pear *Pyrus communis*, were also draped in lichens. A single Siskin *Carduelis spinus* was seen and then the first Hawfinches *Coccothraustes coccothraustes* flew in. Over the next hour or so, one or occasionally two Hawfinches would perch on the top of a tall conifer near the centre of the arboretum. Illuminated by the late afternoon sun, they would stay in the same position for several minutes at

a time, giving excellent views through the telescope. It was impossible to tell whether two or half a dozen birds were seen. On the drive back to Reading, one group had the good fortune to spot a Barn Owl *Tyto alba* on a fence post next to the road.

Saturday 23 February

Lesley Dunlop led a geology walk at Snelsmore Common, north of Newbury, on Saturday 23 February. The temperature was just below freezing and snow was falling gently as 14 members set out from the car park. The walk started on gravel, laid down about 450,000 years ago by outwash from ice sheets to the north. Gravel deposits of the same age are found over a wide area, including on the tops of Greenham and Bucklebury Commons. The vegetation on the gravel was predominantly heather and birch. Heading southwards along the eastern side of the Common, the ground became wet underfoot as the track dropped down slightly onto London Clay. The mire to the west of the path was cushioned with pillows of sphagnum moss, including the red *Sphagnum capillifolium* and the yellowish-green *S. palustre*. The London Clay was deposited about 50 million years ago. The gradient increased sharply and the mire turned into a stream in a deep gully as the track crossed onto the Lambeth Formation (formerly known as the Reading Beds) of sands and clays, laid down about 60 million years ago. The sandy beds were marked by Silver Birch *Betula pendula*, Honeysuckle *Lonicera periclymenum* and Bracken *Pteridium aquilinum*, and there were clumps of Hard Fern *Blechnum spicant* growing in the shaded stream bank.

The walk then continued back up onto the gravels at the top of the central ridge of the Common. Most of the stones of the gravel were angular flint but there were also some rounded pebbles, which must have been on a beach at some point in their history. Gorse was in flower and three Exmoor ponies were grazing amongst the heather. Another track led steeply down to the western boundary ditch and fence. The fields below marked the transition onto the Chalk, laid down about 85 million years ago. The bright green of the grass was in marked contrast to the dull browns of the vegetation on the Common. Continuing northwards along the boundary, on the lowest sandy layer of the Reading Beds, a series of circular depressions to the right of the path marked a line of swallow holes, where acid water from the Common had dissolved the underlying Chalk. Some of the trees on the sides of the swallow holes sloped inwards, indicating that the holes had continued to develop after the trees had started to grow. Some of the larger trees had a series of curves in their trunks, indicating that they had bent back to the vertical, and then been tilted again by continued growth of the hole. On the walk back to the car park, a Sparrowhawk *Accipiter nisus* was spotted, flying low above the ground along the edge of the trees.

Saturday 13 April

In recent years, the National Trust's Morgaston Woods, near The Wyne in north Hampshire, have been a sea of colour by the middle of April. When Renée Grayer led a walk there on the cool wet afternoon of Saturday 13 April, there were only a few flowers to be seen, although the leaves of many different species promised a good display in the not too distant future. Calling Chiffchaffs *Phylloscopus collybita* indicated that the first of the summer migrant birds had arrived. The walk, attended by 12, started from the car park of The Wyne, crossed a field and went into the woods. Primroses *Primula vulgaris* and Wood Anemones *Anemone nemorosa*, some white and some pale pink, brightened up the woodland floor. Beside the path to the hide which overlooks the wetland area were a few Spurge-laurel *Daphne laureola* plants, with inconspicuous trumpet-shaped green flowers. The walk continued through the woods, following the stream up the valley. Leaves of Moschatel *Adoxa moschatellina*, Woodruff *Galium odoratum*, Sanicle *Sanicula europaea*, Wood Spurge *Euphorbia amygdaloides* and Pignut *Conopodium majus* were identified. Hairy Wood-rush *Luzula pilosa* was found next to the path, with tiny off-white flowers fanning out in a globe shape from the top of the stem. In one spot, two different speedwells were growing close to one another, with the bright green leaves of Wood Speedwell *Veronica montana* contrasting with the duller green leaves of Germander Speedwell *V. chamaedrys*. A small violet with a dark purple spur was identified as Early Dog-violet *Viola reichenbachiana*. The highlight of the walk was a stretch of path where Hazel *Corylus avellana* branches had been used to weave a low fence. At its base were a number of the bright red cup-shaped fruits of the Scarlet Elfcup *Sarcoscypha austriaca* fungus (Photo page 36). At the highest point of the wood was a dark stand of conifers, with the bright green leaves of Wood-sorrel *Oxalis acetosella* on the woodland floor below. Nearby, yellow Colt's-foot *Tussilago farfara* was flowering on a patch of open ground. The last part of the walk followed

the path beside the lake. Roots fanning out from the base of a Swamp Cypress *Taxodium distichum* had knobbly lumps protruding above the ground. Finally, an unusually low-growing Mistletoe *Viscum album* plant in a Prunus tree beside the path gave the opportunity to inspect the greenish-yellow flowers at close quarters.

Sunday 28 April

Janet and Jerry Welsh led 19 members on a walk through Bottom Wood on the Hardwick Estate on the cool and cloudy afternoon of Sunday 28 April. The walk started from the roadside next to the former King Charles Head pub and followed a footpath southwards across the fields. Blinks *Montia fontana* was in flower in the first field – a tiny, white flower – “blink and you’ll miss it”. As the track dropped down through Holly Copse, Dog’s Mercury *Mercurialis perennis* plants marked the transition onto the chalk. Early Dog-violets, with a dark spur, and Hairy Wood-rush were growing on the bank at the side of the track. The route then turned eastwards, following the track along the bottom of the valley. Primroses, Wood Spurge and Wood Anemones were in flower, and there were clumps of Butcher’s-broom *Ruscus aculeatus* and Spurge-laurel. A Muntjac Deer *Muntiacus reevesi* was spotted on the other side of the valley. At the far end of the wood was a single Wild Service tree *Sorbus torminalis*. There were also flowers of Common Dog-violet *Viola riviniana*, with a pale, notched spur. There followed a steep climb to the southern edge of the wood and then out onto the chalk grassland beyond, for a good view across the valley of the Thames, looking towards Purley, Tilehurst and Reading. At the top of the wood were sheets of Ramsons *Allium ursinum*.

The walk continued back westwards across Bottom Wood. Two Roe Deer *Capreolus capreolus* were seen. At the far side of the wood, there were sheets of bright green Wood Melick *Melica uniflora*. A few of the plants were already showing their dark flower buds. Southern Wood-rush *Luzula forsteri*, with an asymmetric flower head, was growing on a bank nearby. Leaving the wood, the route continued along the lane through Path Hill, then followed another footpath across a steep valley. On the far side was a bank with interesting chalk flora, including Hairy Violet *Viola hirta*, Salad Burnet *Sanguisorba minor*, Hound’s-tongue *Cynoglossum officinale*, Cowslip *Primula veris* and Glaucous Sedge *Carex flacca*. Finally, in the last field before returning to the cars, the delicate leaves of Pignut were seen and a Greater Stitchwort *Stellaria holostea* plant was just coming into flower.

Wednesday 1 May

John Lerpiniere led 13 members on an evening walk on Wednesday 1 May to look at the new Fobney Island nature reserve. The walk started from the southern end of Circuit Lane in Southcote and followed the track over the Holy Brook and River Kennet to the towpath of the Kennet and Avon Canal. A Small Tortoiseshell *Aglais urticae* butterfly was basking in the evening sunshine on Common Nettles *Urtica dioica* beside the path and Blackcaps *Sylvia atricapilla* and Whitethroats *S. communis* were singing from the bushes. Continuing eastwards along the towpath, two Greylag Geese *Anser anser* on the opposite bank were guarding five good-sized goslings. In the meadows beyond, a Fox *Vulpes vulpes* backed down from a stand-off with four Canada Geese *Branta canadensis*.

Work on the new Fobney Island Wetland Nature Reserve was completed in November 2012. It was a joint project between the Environment Agency, Reading Borough Council, Thames Water, and the Thames Rivers Trust to transform an area of rough grassland between the River Kennet and the Kennet and Avon Canal into a 5 hectare wetland nature reserve with riverine and floodplain habitats, pathways for public access and wildlife viewing hides. There was a Shelduck *Tadorna tadorna* on the first pool, and on the pools beyond were a few Gadwalls *Anas strepera*, Tufted Ducks *Aythya fuligula* and a pair of Mallards *Anas platyrhynchos* with two small ducklings. A Little Ringed Plover *Charadrius dubius* was on the mud at the edge of the water and there were several Pied Wagtails *Motacilla alba* on the bank. The walk continued to Fobney Lock, where Butterbur *Petasites hybridus* plants with pink flower spikes carpeted the river bank.

The return route followed the southern bank of the Kennet. New gravel beds in the river have created faster-flowing shallows, providing good spawning habitat for fish. Crowns of the willows on the south bank have been thinned to let in more light, helping river vegetation to become established, and a few trees have been felled into the water to create debris features. Two Mandarin Ducks *Aix galericulata* were spotted next to one of the felled willows. Continuing back

along the towpath, the alarm calls of a Wren *Troglodytes troglodytes* alerted the group to the presence of a Barn Owl which had been roosting under the railway bridge. It flew off across the meadows. Finally, a bat was spotted in the gathering twilight.

Saturday 11 May

Fred Taylor led a walk on the morning of Saturday 11 May at BBOWT's Baynes and Bowdown Woods reserve near Newbury. The walk, which was attended by 9 members, started in the recently-cleared area at the top of the reserve, near the bomb-site car park. Under one of the tin sheets were three Slow-worms *Anguis fragilis* (Photo page 36), the two older specimens pale, while the younger one was brown. The group then walked back into the main part of the reserve, heading for the western section of Bowdown Woods. Bluebells *Hyacinthoides non-scripta* were close to their best, covering parts of the reserve in sheets of blue. The first part of the walk was on the acid soil at the top of the reserve, where Wood Sage *Teucrium scorodonia*, Bilberry *Vaccinium myrtillus* and Heather *Calluna vulgaris* were amongst the plant sightings. The oaks were covered with dangling flowers and new yellowish-green leaves. Fred showed the group an area of rough ground with piles of brash beside the track which is apparently a good place to look for basking reptiles, including Adders *Vipera berus*. Closer inspection revealed tangles of plastic and other debris, giving clues to its former use as part of the sewage plant of the Greenham Common airbase.

The walk continued downwards through the reserve. Close to the western car park was an area of woodland with a particularly rich selection of plants, including Solomon's-seal *Polygonatum multiflorum*, Pignut, Three-nerved Sandwort *Moehringia trinervia*, Yellow Archangel *Lamiastrum galeobdolon*, Greater Stitchwort, Wood Sorrel, Wood Anemone, Wood Speedwell, Common Dog-violet, Bugle *Ajuga reptans* and Red Campion *Silene dioica*. The path continued down to a fenced-off area, protecting a recently-coppiced section from browsing deer. The flowers of Moschatel, Yellow Pimpernel *Lysimachia nemorum* and both Wavy Bitter-cress *Cardamine flexuosa* and Hairy Bitter-cress *C. hirsuta* were identified in the area next to the fence. Continuing downwards to the bottom of the wood, the ground became wetter under foot. On the left of the path was a clump of three Early-purple Orchids *Orchis mascula* and further on another single specimen was seen. The tiny plants of Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium* were abundant next to a particularly damp section of the path. The route then turned back upwards towards the top of the reserve. A wave of perfumed scent came from the sheets of Bluebells on the bank to the right of the path. Half way up the valley was a series of ponds. Dragonfly nymphs were spotted in the water, but despite careful searching, no tadpoles were seen. In the marshy area next to the ponds were yellow Marsh-marigolds *Caltha palustris* and Lesser Spearwort *Ranunculus flammula*. Continuing upwards, the path climbed back onto the acid soils at the top of the reserve. The leaves of Spotted-orchids, with prominent transverse purple spots, were growing conspicuously beside the path. The group then retraced their steps back to the car park. Birds seen or heard during the walk included Green Woodpecker *Picus viridis*, Great Spotted Woodpecker *Dendrocopos major*, Jay *Garrulus glandarius*, Blackcap, Chiffchaff and Goldcrest *Regulus regulus*.

Saturday 25 May

Roger Kemp organised a visit on Saturday 25 May to BBOWT's Dancersend reserve near Wendover. Warden Mick Jones kindly guided the 12 members round the reserve. The walk started in woodland at the south-west side of the site. The Bluebells were at their best and a pair of Speckled Wood *Pararge aegeria* butterflies were spiralling upwards in the first clearing. Wood Melick, Wood Millet *Milium effusum*, Yellow Archangel, Woodruff and Sanicle were amongst the sightings in the woods. Mick pointed out the leaves of Wood Vetch *Vicia sylvatica* beside the path which led out into the open Ant Hill clearing. Fly Orchids *Ophrys insectifera* (Photo page 37) were in flower and there were a good number of spikes of Greater Butterfly-orchids *Platanthera chlorantha* which would soon be coming into flower. Also seen were Lady's-mantle *Alchemilla vulgaris* with yellowish-green flowers and Adder's-tongue Fern *Ophioglossum vulgatum*, with a shiny yellowish-green leaf and a small central spike. The fenced-off Meadow Plots formed the lower part of the clearing, where Miriam Rothschild pioneered investigations into the best methods of scrub clearance, using at different times estate workers, both light and heavy sheep, goats and cattle. The area has Chiltern Gentians *Gentianella germanica* which benefit from the bare soil created by cattle poaching. A Dingy Skipper *Erynnis tages* butterfly and Burnet Companion

Euclidia glyphica and Common White Wave *Cabera pusaria* moths were identified in this section.

The walk continued along a valley which had been clear-felled some years ago. Clumps of Stinking Hellebore *Helleborus foetidus* were growing on the steep sides. When the sun came out, Brimstone *Gonepteryx rhamni* and Orange-tip *Anthocharis cardamines* butterflies appeared. The path continued to an area of open grassland. One of the fields, which faces south, still has a rich chalk flora, including the rare Slender Bedstraw *Galium pumilum*. Other plants seen here included Common Milkwort *Polygala vulgaris* and Salad Burnet. The other fields are being reverted back to chalk grassland from arable land. Scrapes have been carved out to provide steep south-facing banks and sheltered hollows for butterflies. They will be planted up with plugs of Horseshoe Vetch *Hippocrepis comosa* and Kidney Vetch *Anthyllis vulneraria*. The scrapes have already been colonised by a number of plants, including Blue Pimpernel *Anagallis arvensis* subsp. *foemina*, Field Madder *Sherardia arvensis*, Parsley-piert *Aphanes arvensis*, Round-leaved Fluellen *Kickxia spuria*, Sharp-leaved Fluellen *K. elatine* and Wild Mignonette *Reseda lutea*. In conjunction with scientists from the University of Reading, there have been trials for clearing and reseeding sections of the field. Three different speedwells were noted in one of these sections – Germander, Thyme-leaved *Veronica serpyllifolia* and Wall Speedwell *V. arvensis*. The group then walked back up through the woods to the start point. The track passed through a section with big trees but no Bluebells on the right, an area of secondary woodland, which contrasted with an ancient woodland section on the left, with carpets of Bluebells, Hazel coppice and a much richer variety of trees and bushes in the under-storey.

After a picnic lunch, the group drove round to the Crong Meadow, next to the Waterworks at the south-east side of the reserve. There were Green-veined White *Pieris napi* and Orange-tip butterflies, Green Carpet *Colostygia pectinataria*, Mother Shipton *Callistege mi* and Common Carpet *Epirrhoe alternata* moths and a number of unidentified spiders. A striking hoverfly which was visiting the flowers of Wood Sage was identified as *Leucozona lucorum* (Photo page 37). It had chestnut on the thorax, a dark abdomen with a bold broad white band and dark wing markings. Somewhat surprisingly, since it was the middle of the afternoon, the hooting call of a Tawny Owl *Strix aluco* was heard coming from the surrounding woods.

Saturday 1 June

18 members joined Renée Grayer for a walk at Cookham on Saturday 1 June, starting from a rather full National Trust car park. A number of different species of damselfly were seen by the stream next to the path, including Blue-tailed Damselfly *Ischnura elegans*, Large Red Damselfly *Pyrhosoma nymphula* and Beautiful Demoiselle *Calopteryx virgo*. The footpath passed under a railway bridge, where Wall Rue *Asplenium ruta-muraria* and Hart's-tongue Fern *Phyllitis scolopendrium* were growing on the brickwork. Beyond the railway, the route led into Cock Marsh. Growing in the clear water of the ditch to the right of the path were Water-violet *Hottonia palustris* (Photo page 37) and the leaves of Fringed Water-lily *Nymphoides peltata*. Next came a steep scramble up through a row of Hornbeams *Carpinus betulus* to a higher track-way. On the steep chalk bank to the left of the path were many flowering clumps of Meadow Saxifrage *Saxifraga granulata*. Other flowers in the chalk grassland included Salad Burnet, Horseshoe Vetch, Common Rock-rose *Helianthemum nummularium*, Fairy Flax *Linum catharticum* and Clustered Bellflower *Campanula glomerata*. Two metallic green beetles were feeding on a buttercup flower.

There are a series of ponds in the marsh at the foot of the chalk bank, each with a slightly different selection of plants. In the first pond, Water-violet, Thread-leaved Water-Crowfoot *Ranunculus trichophyllus*, Water Forget-me-not *Myosotis scorpioides*, Marsh Speedwell *Veronica scutellata* and Brooklime *V. beccabunga* were noted. Another pond had sheets of Water-violet, partly in the shade of the willows, partly out in the sunshine. Another had the tall leaves of Water Dock *Rumex hydrolapathum*. The furthest pond had leaves of what were thought to be Tubular Water-dropwort *Oenanthe fistulosa* and Fine-leaved Water-dropwort *O. aquatica*. The walk then continued across a field with singing Skylarks *Alauda arvensis* to the Thames Path. The mayflies had just hatched and a big flock of Swifts *Apus apus* was swooping over the river and adjacent fields to feed on them. They were joined by a single House Martin *Delichon urbica*. A Common Tern *Sterna hirundo* was feeding over the river. A few butterflies were seen during the walk, including several Brimstones and Orange-tips and two Small Coppers *Lycaena phlaeas*. The only moth of the afternoon was a Small China-mark *Cataclysta lemnata*.

Sunday 16 June

Sally Rankin organised a joint visit with Henley Wildlife Group to Kings Barn Farm near Medmenham on Sunday 16 June. Owners Susan and John Phillips kindly led the 24-strong group round the farm, showing how it is being managed to benefit wildlife. The walk started in the grassy field opposite the farm buildings. Yellow-rattle *Rhinanthus minor* has been introduced to the field, to reduce the vigour of the grass and encourage other species. The field has a number of different grasses, including Crested Dog's-tail *Cynosurus cristatus* and False Oat-grass *Arrhenatherum elatius* – the latter had some specimens with their flower heads blackened by the fungus Ergot. Later in the summer, grasshoppers are abundant in this field. Other flowers here included Ragged-Robin *Lychnis flos-cuculi* and Sainfoin *Onobrychis viciifolia*. Flowers on the bank at the top of the field included Bladder Campion *Silene vulgaris* and Common Gromwell *Lithospermum officinale*. A Small Heath *Coenonympha pamphilus* butterfly and several Straw Dot *Rivula sericealis* moths were noted in this field.

The next field appeared white from a distance – it was covered by a sea of Oxeye Daisies *Leucanthemum vulgare*. It had been harrowed and sprayed in 2011, before being sown with a wild flower mixture. Other flowers here included Grass Vetchling *Lathyrus nissolia* and Field Madder. At the side of the field was a strip which had not been reseeded. Long-stalked Crane's-bill *Geranium columbinum* flowers were seen here, together with both pink and white versions of the Hedgerow Crane's-bill *G. pyrenaicum*. A number of scrapes had been created in this field, to generate sheltered habitat for butterflies. One was unfenced, and here the rabbits had been at work, eating the Horseshoe and Kidney Vetch plants. The next scrape was protected by wire netting and an electric fence. Here Common Rock-rose and Horseshoe and Kidney Vetch were flourishing. There were also several plants of the scarlet-flowered Pheasant's-eye *Adonis annua*. A Common Blue *Polyommatus icarus* butterfly and Yellow Shell *Camptogramma bilineata* and Cinnabar *Tyria jacobaeae* moths were seen here.

The walk then continued through woodland. Ash *Fraxinus excelsior* was the dominant tree on the chalk at the bottom of the woods, with Dog's Mercury, Hairy St John's-wort *Hypericum hirsutum*, Spurge-laurel and Wood Spurge. Higher up, the vegetation changed abruptly to Bracken, Bluebells and oak trees, marking the transition to the layer above the chalk. The top of the wood was dark, below tall Beech *Fagus sylvatica* trees. A clearing near the top had Wild Marjoram *Origanum vulgare* and Common Milkwort and a Dark Bush-cricket *Pholidoptera griseoaptera* was spotted. The path then dropped down to a clearing in the valley below, where there were Adder's-tongue ferns (Photo page 37) and a number of Common Twayblades *Listerata ovata*. A gall on a Ground-ivy *Glechoma hederacea* plant was tentatively identified as *Liposthenes glechomae*. A Beautiful Golden Y *Autographa pulchrina* moth (Photo page 37) posed obligingly while its picture was taken by a number of photographers. The path then emerged onto a chalk bank, where there were Harebells *Campanula rotundifolia*, a single White Helleborine *Cephalanthera damasonium* in flower, Common Quaking-grass *Briza media* and Wild Marjoram. On the far side of the field was an area with several hundred spikes of Adder's-tongue fern.

Saturday 29 June

The annual coach trip, attended by 30 members on Saturday 29 June, was to Dungeness in Kent. Laid down over 5000 years, the shingle beach at Dungeness is the largest in Europe, with a number of rare plants, insects and birds. First stop was by the old lighthouse. On the walk to the beach, plants seen included abundant Nottingham Catchfly *Silene nutans*, Bur Chervil *Anthriscus caucalis*, Shepherd's Cress *Teesdalia nudicaulis*, Biting Stonecrop *Sedum acre*, English Stonecrop *S. anglicum*, Yellow Horned-poppy *Glaucium flavum*, (Photo page 37) Sea-kale *Crambe maritima* (Photo page 38), Sea Beet *Beta vulgaris*, Sheep's-bit *Jasione montana*, Buck's-horn Plantain *Plantago coronopus*, Sea Campion *Silene uniflora*, Slender Thistle *Carduus tenuiflorus* and Rock Samphire *Crithmum maritimum*. A Black Redstart *Phoenicurus ochruros* was singing on a post within the nuclear power station complex. Six-spot Burnet *Zygaena filipendulae* moths were nectaring on the flower heads of Viper's-bugloss *Echium vulgare* and Painted Lady *Vanessa cardui*, Small Tortoiseshell and Small Heath butterflies were seen.

Next stop was the nearby RSPB reserve. Some of the party visited the hides closest to the Visitor Centre. They reported the sighting of a Marsh Frog *Pelophylax ridibundus*. The rest of the group followed a 2 mile trail round the reserve. The willow bushes beside the path were draped in webs

which contained grey and black caterpillars. A few specimens were bred through by Roger Kemp, and turned out to be Willow Ermine *Yponomeuta rorella*. This is principally a migrant moth and the larvae are rarely seen in this country. A Sedge Warbler *Acrocephalus schoenobaenus* was feeding along the banks of a reed-lined dyke. It perched on a floating polystyrene block, giving good views of its eye-stripe. Whitethroats *Sylvia communis* and Linnets *Carduelis cannabina* were seen, a Cetti's Warbler *Cettia cetti* was heard and several Hobbies *Falco subbuteo* were hunting overhead. From the Denge Marsh hide, there were good views of Common Terns with fluffy chicks which were nesting on floating rafts. While watching a Common Lizard *Lacerta vivipara* at the entrance to the hide, a cuckoo bumblebee was spotted, searching amongst the vegetation for a bumblebee nest to parasitize. Several Marsh Harriers *Circus aeruginosus* were patrolling across the reed-beds at the northern end of the reserve. Finally, as the coach was leaving the reserve, there was a brief pause to inspect the nest-boxes on the warden's house for Tree Sparrows *Passer montanus*. A number of sparrows were spotted, but the views were not good enough for a definite identification.

Thursday 4 July

There was an over-powering scent of elderflower blossom on the warm sunny evening of Thursday 4 July when Jan Haseler led 4 members on a walk which started from the lower end of Hook End Lane at Lower Basildon. The route led up the lane, then along the edge of a field on the right. A Small Tortoiseshell butterfly was basking in the sunshine on the west-facing bank below the road. Common Gromwell, Wild Teasel *Dipascus fullonum* and Hairy St John's-wort, with prominent black dots round the edges of the sepals and hairy leaves and stems, were growing on the bank. The footpath turned up the hill, next to the hedge in a grassy field. A Skylark was singing and many Meadow Brown *Maniola jurtina* butterflies were on the wing. The track went through a gap in the hedge and then followed the edge of a wood. Vervain *Verbena officinalis*, Pale Toadflax *Linaria repens*, Great Mullein *Verbascum thapsus*, Perforated St John's-wort *Hypericum perforatum* and Common Restharrow *Ononis repens* were all found in the field margin. Amongst the trackside vegetation were several funnel webs and a large brown spider emerged from one of them. Treble Lines *Charanyca trigrammica* and Straw Dot moths were seen. The creaking call of a Tawny Owl *Strix aluco* chick came from the edge of the wood, but the vegetation was too dense to spot it. Then two Roe Deer ran across the field. By this time, the shadows had descended on the western side of the valley, but the east side was still bathed in evening light, so the decision was made to turn round and seek out the sunshine. Three Pyramidal Orchids *Anacamptis pyramidalis* which had been previously overlooked were spotted on the walk back.

Returning to the lane at the bottom of the valley, the group turned right for a short distance, then followed another footpath up the eastern side of the valley. The top edge of the field was still in sunshine and it proved to be a delightful stretch of fine chalk grassland habitat. There must have been several hundred Pyramidal Orchids, together with Common Spotted-orchids *Dactylorhiza fuchsii*, Clustered Bellflower, Common Rock-rose and Common Bird's-foot-trefoil *Lotus corniculatus*. Marbled White *Melanargia galathea* butterflies were roosting in the grass. The footpath led into a strip of woodland, where a Muntjac Deer was disturbed. Continuing down the drive, a Fox crossed the road ahead. The final section of the route followed a short stretch of the A329. A gateway on the right gave a view across the valley of the Thames to Hartslock, and surprisingly there were yet more Pyramidal Orchids beside the main road.

Saturday 13 July

On Saturday 13 July, a baking hot day with full sun and the temperature in the upper 20's Centigrade, Graham Saunders led a walk at Cottington's Hill, near Kingsclere. 8 members strode out purposefully to the sound of Skylarks and Yellowhammers *Emberiza citrinella* but soon slowed to a dawdle, entranced by the delights of Stingless Nettles *Urtica dioica* subsp. *galeopsifolia* (narrow leaves – but don't try touching them unless certain of identification!), the unusual Dwarf Spurge *Euphorbia exigua* and several fine stands of Knapweed Broomrape *Orobanche elatior* (Photo page 38). The old fortification bank on the top of Cottington's Hill was observed. The elderly, but dwarf specimens of Hawthorn *Crataegus monogyna*, Buckthorn *Rhamnus cathartica* and Dogwood *Cornus sanguinea* were still in rude health and seemed no bigger than on the Society's previous visit, five years ago. After the steep descent, there was an even steeper rise up the escarpment through an attractive wild flower meadow with Common Spotted-orchids fading, but Pyramidal Orchids in full flower. It had been a very late season. The panoramic views were magnificent.

Sunday 28 July

Michael Keith-Lucas led a walk, which was attended by 15 members, at Silchester Common and Pamber Forest on Sunday 28 July. A Crab Apple *Malus sylvestris* tree, an ancient woodland indicator species, was growing at the entrance to the wood. It had shiny, hairless leaves. Later on, another specimen also had small rounded fruits. Towards the end of the walk, a domesticated apple tree was spotted, and this had downy undersides to its leaves. Pamber has both Pedunculate Oaks *Quercus robur* and Sessile Oaks *Q. petraea*, and Michael pointed out the key differences. The leaves of the Pedunculate Oak have a short stalk and rounded basal lobes, while the acorns have a long stalk. The Sessile Oak has longer-stalked leaves with more side lobes and a tapering base, while the acorns are virtually stalkless. The walk started out along the wood bank which marks the boundary between the ancient forest and the heathland of Silchester Common. Common Cow-wheat *Melampyrum arvense*, a partially parasitic plant, was in flower next to the path. Apparently it can be an indicator of sites where woodland has been cleared by burning in the past. A Wild Service tree, with berries forming, was spotted.

The route continued across the Common and down into one of the valley mires, where the ground had been badly poached by cattle. Bog Asphodel *Narthecium ossifragum*, Marsh Violet *Viola palustris* with kidney-shaped leaves, Marsh St John's-wort *Hypericum elodes*, Bog Pimpernel *Anagallis tenella*, Lesser Skullcap *Scutellaria minor* and Common Cottongrass *Eriophorum angustifolium* were amongst the finds here. There were also a number of different sedges and rushes, including Star Sedge *Carex echinata*, Small-fruited Yellow Sedge *Carex viridula* subsp. *viridula* and Bristle Club-rush *Isolepis setacea*. Cross-leaved Heath *Erica tetralix* was found in the valley bottom, while Bell Heather *E. cinerea* flowered in profusion up on the drier ridge. Dwarf Gorse *Ulex minor*, lighter green and with less robust prickles than Common Gorse, was just coming into flower. Continuing along the path, flowering Dodder *Cuscuta epithymum*, Lily-of-the-valley *Convallaria majalis* and Wood Horsetail *Equisetum sylvaticum* were seen. The Alder Buckthorn *Frangula alnus* bushes had been severely browsed by the cattle. A few had both flowers and berries, but these only survived at the top of the tallest branches.

The route then led back into the forest, where two female Silver-washed Fritillary *Argynnis paphia* butterflies were resting on Bracken. A shady damp valley in the woodland had Yellow Pimpernel, Enchanter's-nightshade *Circaea lutetiana*, Common Valerian *Valeriana officinalis* and both Narrow Buckler-fern *Dryopteris carthusiana* and Broad Buckler-fern *D. dilatata*. Continuing along a more open section, most of the grass in the centre of the ride had been cut and raked. A group of flowering Broad-leaved Helleborines *Epipactis helleborine* and a big clump of Betony *Stachys officinalis* had been left uncut. The purple Betony flowers were a magnet for bees and skipper butterflies. A single White Admiral *Limenitis camilla* and a good number of Silver-washed Fritillary butterflies were seen. A clump of Nettles at the side of path with longer narrower leaves were identified as the non-stinging variety. Finally, a number of Gatekeeper *Pyronia tithonus* butterflies were seen on the hedge next to the allotments.

Saturday 3 August

Norman Hall organised the annual moth-trapping night at Hosehill Local Nature Reserve (Photo page 38) near Theale on Saturday 3 August. The skies were clear and the temperature initially dropped fairly rapidly. Norman ran a mercury vapour (MV) light over a sheet and 2 Robinson traps with MV lights in the meadow on the east of the reserve. Jan Haseler ran a MV light over a sheet, a Robinson trap under a big willow by the lake edge and a Skinner trap with an actinic light, all near the central reserve entrance. A disco at the Fox and Hounds pub across the road made this the noisiest mothing station. As dusk fell, the first moths to come in were Ruby Tiger *Phragmatobia fuliginosa*, Dingy Footman *Eilema griseola*, in both grey and yellow forms, Cloaked Minor *Mesoligia furuncula* and Orange Swift *Hepialus sylvina*. A handsome Black Arches *Lymantria monacha* and a number of Sallow Kittens *Furcula furcula* arrived on the sheet in the meadow. These were joined by a Barred Rivulet *Perizoma bifaciata*, whose larval food-plants are the ripening seed-heads of Red Bartsia *Odontites vernus*, a plant which is abundant in the meadow. A Pale Prominent *Pterostoma palpina* settled on the sheet, looking like a dead twig. Small Seraphim *Pterapherapteryx sexalata*, Small Scallop *Idaea emarginata*, Least Carpet *I. rusticata*, Straw Underwing *Thalophila matura* and Scorched Carpet *Ligdia adustata* were amongst the other finds at Norman's lights.

One of the highlights at Jan's traps was a Double Kidney *Ipimorpha retusa*. Its caterpillars feed on willows, and an adult moth was attracted to the trap under the big willow by the lake. Other interesting moths included a delicate pink Rosy Footman *Mitochondria miniata*, a Purple Thorn *Selenia tetralunaria* and a showy black and white Leopard Moth *Zeuzera pyrina*. Graham Saunders brought his bat detector and identified Noctule *Nyctalus noctula*, Daubenton's *Myotis daubentonii* and 55 kHz Pipistrelle *Pipistrellus pygmaeus* bats. Soon after midnight, most of the members had left and Jan and Laurie began to pack up. At this point, it began to cloud over and Canary-shouldered Thorns *Ennomos alniaria* started to appear in good numbers. The rest of the night was warmer, and Norman, who stayed overnight, reported that a significant number of additional species came in later in the night. Next morning, 9 members turned up to view the night's catch. Amongst the catch at Norman's trap was one of the Ear Moths and he was later able to confirm that it was the uncommon Saltern Ear *Amphipoea fucosa*, which is more usually found on coastal salt-marshes.

Saturday 10 August

Jan Haseler led a walk at Oven Bottom on Saturday 10 August. Oven Bottom is an area of fine chalk grassland on open access land which had not previously been visited by the Society. The walk started from the end of the lane at Woodway, above Blewbury. 16 members set out up the track towards the Ridgeway. Both Common Knapweed *Centaurea nigra* and Greater Knapweed *C. scabiosa* were in flower beside the track, allowing comparison between the lanceolate leaves of the former and the larger pinnate leaves of the latter. At the first junction, the route turned left along a track next to the racehorse gallops. Yellow Common Toadflax *Linaria vulgaris* flowers were seen on the grassy verge, a Yellowhammer was singing loudly from the top of a hawthorn bush and a Clouded Yellow *Colias croceus* butterfly flew across the gallop.

At the point where the track turned into the Oven Bottom access land, there was an interesting arable field margin. Amongst the scarlet Common Poppies *Papaver rhoeas* were a few smaller, dark crimson Rough Poppies *Papaver hybridum*, with round, bristly seed capsules. Small Toadflax *Chaenorhinum minus* was also noted here. A Raven *Corvus corax* called as it flew high overhead. The route then led into the Oven Bottom grassland. The top of the first slope was dominated by long grass and Wild Parsnip *Pastinaca sativa*. Dropping down to the steeper part of the valley, the richness of the flora rapidly increased, with Small Scabious *Scabiosa columbaria*, Common Knapweed, Harebells, Clustered Bellflower, Burnet Saxifrage *Pimpinella saxifraga*, Common Rock-rose, Squinancywort *Asperula cynanchica*, Hawkweed Oxtongue *Picris hieracioides*, Wild Mignonette *Reseda lutea* and Eyebright *Euphrasia* sp. amongst the sightings. Amongst the many knapweed flowers, Sally Rankin spotted the slightly smaller and paler flower heads of Saw-wort *Serratula tinctoria*, with brighter green leaves and a narrow, oblong, purplish smooth involucre below the flower, contrasting with the rough spherical involucre of the knapweed. The last time that Saw-wort was recorded on a Society field trip was on the very acid soils of Bartley Heath – it came as a surprise to some members to see Saw-wort in such a different setting – but the flower book does indeed include both heathland and calcareous grassland as habitats where it can be found.

Chalkhill Blue *Lysandra coridon* and Meadow Brown butterflies were abundant. Also on the wing were Common Blue, Brown Argus *Aricia agestis*, Large White *Pieris brassicae*, Small White *P. rapae*, Small Skipper *Thymelicus sylvestris*, a single Small Copper and another Clouded Yellow. There were bees on many of the flower-heads of knapweed and scabious. These were identified by Graham Saunders as the females of *Bombus lucorum* and *B. terrestris*, and the males of the Cuckoo bees *B. vestalis* and *B. campestris*. A wasps' nest was found, which had probably been dug out by a Badger *Meles meles*. There were still many wasps in the hole, with greenish heads and yellow bodies. Finally, about 20 Frog Orchid *Coeloglossum viride* flower-spikes were found towards the eastern end of the north-facing slope of the southern valley.

Saturday 24 August

Julia Cooper and Ian Duddle led a walk at Nippers Grove near Hook End, between Woodcote and Sonning Common, on Saturday 24 August. The previous week, Jerry Welsh had walked round the route with Julia and Ian, pointing out some of the botanical and archaeological highlights. It was threateningly cloudy at the start of the walk and the rain did indeed begin to fall quite heavily soon afterwards. Nine members started out along the strip of woodland on the north-east side of Park

Lane. Bell Heather and Wood Sage were unusual finds for South Oxfordshire. There were bright red berries on the Honeysuckle plants. An enormous fungus with fan-shaped layers coming up from a common base was subsequently identified as Giant Polypore *Meripilus giganteus*. The route then turned north-eastwards along the edge of Withy Copse. Despite a very modest amount of rain after a long dry spell, the first flush of autumn fungi had appeared. A Blusher *Amanita rubescens* had an obvious ring and stained pink when its cap was scratched. A number of specimens of Russulas and Boletes were found, but none of the members of the group were confident about identifying them to species level. Common Figwort *Scrophularia nodosa* and Enchanter's-nightshade were in flower next to the path. Sweet black ripe cherries were found beneath one of the tall cherry trees in the wood. For the third time in two months, the long narrow leaves of the non-stinging variety of nettle were spotted (and tested) on a field trip.

Emerging from the far side of Withy Copse, the group crossed the next lane and went into the edge of Wyfold Wood to inspect the ditches and banks of a big Iron Age fort hidden within the woodland. Returning to the lane, a number of plants were found on the banks, including Woodruff, Sanicle, Betony, Slender St John's-wort *Hypericum pulchrum* and Bush Vetch *Vicia sepium*. The group were joined by Janet and Jerry Welsh for the high point of the walk, a collection of about 50 flower spikes of Violet Helleborine *Epipactis purpurata* (Photo page 38) in the ditches at the side of the lane and in the edge of the wood. There is a form of Violet Helleborine which has little or no chlorophyll. This, coupled with absence of mycorrhizal fungi in the roots of mature specimens, has led to the suspicion that it, like Bird's-nest Orchid *Neottia nidus-avis*, is a parasite on mycorrhiza. Some of the flower spikes were growing in clumps, others were growing singly. All of them were in very shady locations. Soft Shield-fern *Polystichum setiferum* was also found in the ditch. Its fronds were compared with the frond of a Male Fern *Dryopteris filix-mas*. The Soft Shield-fern had stalked asymmetric pinnules, with a larger spiked lobe on one side at the base.

The final section of the route led back along the south-west edge of Nippers Grove. The shiny leaves of Black Bryony *Tamus communis* were spotted amongst the vegetation at the side of the track. There was a brief diversion along the margin of the arable field next to the wood. Plants found here included Field Madder, Field Pansy *Viola arvensis*, Fat-hen *Chenopodium album*, Dove's-foot Crane's-bill *Geranium molle*, Scarlet Pimpernel *Anagallis arvensis* and Black-bindweed *Fallopia convolvulus*. A thin-bodied, yellow-banded hoverfly found here was from the genus *Sphaerophoria*. Also seen on the walk was the hoverfly *Episyrphus balteatus*. Returning to the wood, a Sparrowhawk was heard calling loudly, a Buzzard *Buteo buteo* was seen and a large brown female Dark Bush-cricket was spotted on a leaf. A number of yellow Russula fungi were growing up through the grass in the track. Finally, a few more Violet Helleborine plants were found on both sides of Park Lane, close to the starting point of the walk.

Saturday 7 September

Martin Sell led a walk on the southern part of Aston Rowant National Nature Reserve on Saturday 7 September. Starting from the Cowleaze Wood car park, the group of 15 members crossed the road, started down the track opposite, then turned north across the field above the Linky Down section of the reserve. Common Centaury *Centaureum erythraea* and the semi-parasitic Red Bartsia were in flower in the field and Speckled Wood, Small Heath and Common Blue butterflies were seen. There were extensive views over to the northern section of the reserve and far across the Oxfordshire lowlands. The walk continued downwards along a sunken track. Amongst the blue Harebells were a few white specimens. Plants here included the seed-heads of Common Rock-rose, Wild Basil *Clinopodium vulgare*, Small Scabious, Yellow-wort *Blackstonia perfoliata* and Eyebright. A small gentian just coming into flower on the other side of the fence was identified as Autumn Gentian *Gentianella amarella*. The pasture above the bank on the north side of the track, which was covered with ant-hills, was looking heavily grazed by the resident sheep. A Clouded Yellow butterfly was seen here. Both Common and Chalkhill Blue butterflies were roosting with wings together in the shelter of the vegetation at the side of the path. In the relatively cool conditions, they were quite sluggish and could be picked up for closer inspection. The route then crossed a flowery pasture which had not been recently grazed. Flowers here included Blue Fleabane *Erigeron acer*, Small Scabious, Wild Marjoram (including some plants with white flowers) and a clump of Betony near the hedge. A distinctive ragwort was keyed out as Oxford Ragwort *Senecio squalidus*. Several Silver Y *Autographa gamma* moths and a Lime-speck Pug *Eupithecia centaureata* were seen here.

The route back started up the track, as far as a big Hornbeam which was covered in witches' brooms. A path to the right then led into the bottom of the Bald Hill section of the reserve. There were many flowering gentians here – mostly the larger Chiltern Gentians, with transverse wrinkles up the outside of the corolla tube and a relatively short calyx at its base. But some of the gentians were smaller and were perhaps hybrids between Autumn and Chiltern Gentians. A small white-flowered specimen looked like Autumn Gentian. A number of large bumblebees were resting on gentian flower-heads. Squinancywort and Restharrow flowers were added to the list here. A large Juniper *Juniperus communis* bush which had been in good condition earlier in the season now had a number of dead brown patches, raising the worrying fear that it may be showing signs of attack from the *Phytophthora* pathogen which has been attacking Junipers in other parts of the country. In the scrubby section next to the path between the 2 fields were a number of Dewberry *Rubus caesius* plants, with sharp, juicy berries of a dusky blue. A few Frog Orchids were found near the top of the final slope. Close to the entrance to the field were several spikes of Greater Butterfly-orchids – long past flowering, but protected by wire cages from grazing animals. At this point, a late-comer who had set out the opposite way round the reserve appeared – and he reported the sighting of yet another member who had also failed to meet up with the main party. The first drops of rain began to fall and everyone hurried back to the cars, reaching shelter before the rain turned into a downpour with accompanying thunder and lightning. Finally, the last of the latecomers emerged from the storm.

Saturday 21 September

Renée Grayer led a walk at Olddean Common, near Camberley, on Saturday 21 September. 12 members gathered at the end of King's Ride, then set out across the Common. Dwarf Gorse was in flower beside the track, together with both Bell Heather and Ling. Pearl Everlasting *Anapahlis margaritacea*, a garden escape, has become established beside the track. Red Bartsia, Eyebright, Common Fleabane *Pulicaria dysenterica*, Hoary Ragwort *Senecio erucifolius* and a very good-sized Wild Strawberry *Fragaria vesca* were amongst the sightings here. The walk was enlivened by pairs of extremely polite runners in different coloured t-shirts, who all had enough breath to spare to call out 'Good Afternoon' and smile as they passed. Then another pair, with blackened faces and headgear camouflaged as small pine trees, dashed off the path and (almost) melted away into the undergrowth. Continuing along the track, a large, hairy, black and ginger Fox Moth *Macrothylacia rubi* caterpillar was spotted on the bank. Then flowering Fairy Flax was a surprise find for such an acid site. It was suggested that it might have been introduced with the road-building material. Blue Fleabane was also growing nearby. At least 25 tall orchid spikes, long past flowering, were growing in the ditch at the side of the track. A few had spotted leaves and were presumably some form of Spotted-orchid. The majority had leaves without spots and were perhaps Southern Marsh-orchids *Dactylorhiza praetermissa* or some form of hybrid. Another visit to the site earlier in the season might solve the mystery.

The route then turned downhill through a stretch of pine trees. This proved to be a good area for fungi. Brown Birch Bolete *Leccinum scabrum*, Boletus *luridus*, False Chanterelle *Hygrophoropsis aurantiaca*, Blusher and Shaggy Inkcap *Coprinus comatus* were all found here. At the bottom of the slope, the path crossed the Wishmoor Brook. Slender Rush *Juncus tenuis*, Water-pepper *Persicaria hydropiper*, Hard-fern, Cross-leaved Heath and the orange spikes of Bog Asphodel were found in the wetter ground of the stream valley. An attractive purplish-red Russula fungus was also found here. A large mixed flock of birds passed through the streamside willows, including Blue Tits *Cyanistes caeruleus*, Great Tits *Parus major*, Coal Tits *Periparus ater* and Long-tailed Tits *Aegithalos caudatus*. On the return walk, Marsh Cudweed *Gnaphalium uliginosum* was found growing in a damp hollow in the track.

Sunday 29 September

Gordon Crutchfield led the annual fungus foray, attended by 12 members, at Harpsden Woods, near Henley, on Sunday 29 September. It was a warm dry day and the previous week had been dry, so many of the fungi were very shrivelled up. One specimen each of Death Cap *Amanita phalloides* (deadly poisonous) and False Death Cap *A. citrina* (harmless) were found, oddly enough growing within 5 metres of each other. Highlights were two Beefsteak Fungi *Fistulina hepatica* in perfect condition at the base of an oak tree. Beefsteak Fungus kills oak trees, causing a brown rot. The richly-coloured timber is highly valued, but the wood needs to be harvested at the

right time – after the beautiful colour has developed, but before the wood starts to decay. Beefsteak Fungus is edible, but it is not as tasty as it looks or as the name suggests. At the end of the walk, some interesting plant species were spotted along Woodlands Road. Two Bird's-nest Orchids and many Broad-leaved Helleborines were growing there, all in the fruiting stage.

Saturday 2 November

The family walk on Saturday 2 November at BBOWT's Moor Copse reserve, in the lower Pang valley near Tidmarsh, was a new venture for the Society. One young family came with grandparents and were looked after by Ricki Bull. They used a hand lens to inspect the lichens on fallen twigs, saw an interesting collection of fungi and found three different kinds of snail, including long, thin spiral door snails, which can be seen on some of the trees. They did some bark rubbing and enjoyed a game of Pooh Sticks on the bridge over the Pang.

A separate group of 15 members also walked round the reserve. Although it was already November, the predominant colour was green – few trees had started to take on autumn colours. The leaves of a Wych Elm *Ulmus glabra*, found at the side of the lane near the car park, were compared with the much commoner Hazel. Bright red berries of Black Bryony were growing in a twisted strand, draped over the hedge at the side of the track leading into the meadows. More Wych Elm was found in the hedge. A few flowers could still be seen in the meadows, including Meadow Buttercup *Ranunculus acris*, Common Knapweed, Devil's-bit Scabious *Succisa pratensis* and, in the wetter parts of Corner Field, Creeping Cinquefoil *Potentilla reptans*. Earlier in the summer, the Moor Copse meadows were chosen to be the Coronation Meadow for Berkshire and volunteer Reserve Warden Anne Booth was invited, with representatives of the best meadows from across the country, to Highgrove House for a reception hosted by Prince Charles to celebrate 60 years since the Queen's coronation.

A thicket of Bullace *Prunus domestica* subsp. *insititia* trees grows next to the site of the former cottage in Cottage Field. The trees had a heavy crop of sweet orangish-pink plums, which were enjoyed by many of the group. Highlights of the afternoon were the wax-cap fungi on the drier gravel terraces in Corner Field. A few were yellow, white or orange, but most were bright red. Many were just beginning to poke up out of the grass. Wax-caps are colourful fungi of unimproved grassland with short turf – the hay-making with aftermath grazing regime at Moor Copse obviously suits their needs. Wood Blewits *Lepista nuda* were growing out of a pile of old hay which had been left at the side of the field from a previous year. A little mouse jumped away as people moved closer to inspect the fungi. The walk continued along the footpath to Sulham Brook, where a large Ash had been felled by the gales at the beginning of the week. A surprisingly small amount of roots had been uncovered when it fell. Bush Vetch and Herb Robert *Geranium robertianum* were in flower beside the path.

The route then doubled back and crossed Barton's Field, where there was a Badger latrine in a hole at the side of path. Entering Moor Copse, the puff-ball *Lycoperdon pyriforme* was found growing in clumps on dead wood. More wax-caps were found in 5-Acre Field. In Park Wood, the group inspected some of the recent coppice plots to see how the stumps had been protected from browsing deer and how quickly the trees were growing back. Earlier in the season, the coppice plot from two winters back had been outstanding for flowers and butterflies. Continuing to the main ride, there were waxy red berries on the Guelder-rose *Viburnum opulus* bushes and abundant pink berries on the Spindle *Euonymus europaeus* bushes. The group then walked back along the river bank to the car park.

Thursday 14 November

Sheelagh Hill organised a joint coach trip with Reading Gardeners to the Royal Horticultural Society's Wisley Gardens in Surrey on Thursday 14 November. Three different 'Behind the Scenes' tours had been organised – to the Propagation Unit, the Herbarium and the Library. The latter tour had an additional natural history element, when members were asked if they could identify the skeleton found in the bottom of a vase – some sort of mouse. For the rest of the visit, members were free to explore the gardens and enjoy the autumn colours.

Saturday 7 December

Renton Righelato led a walk at Moor Green Lakes on the still, cloudy morning of Saturday 7

December. The leaves on the oaks were a tawny brown, but the leaves on the elms at the side of the path were still mostly green. While the group were gathering in the car park at the start of the walk, a Great Spotted Woodpecker called and a bumblebee flew along the hedge. Bird feeders beside the track were being visited by Great and Blue Tits, Greenfinches *Carduelis chloris* and Chaffinches *Fringilla coelebs*. A Teal cruised slowly across just in front of the first hide. Beyond were Wigeon, Gadwall, Tufted Duck and Mallard. At the far side of the lake were a few Dabchicks *Tachybaptus ruficollis* and a Little Egret. Good numbers of Lapwings were resting on the nearest island. There were excellent views of a Common Snipe *Gallinago gallinago* as it probed its way along a nearby spit. Outside the hut, a big flock of Siskins and a few Common Redpolls *Carduelis flammea* were feeding amongst the alders and birches.

The route continued along the track to the River Blackwater, then turned upstream along the river bank. A Grey Wagtail *Motacilla cinerea* flew along the river and a large flock of Long-tailed Tits crossed the path. A plant at the bottom of a particularly steep section of river bank was identified as Water Figwort *Scrophularia auriculata*, after Renton had risked a soaking while collecting a specimen leaf for closer examination. Common Figwort has coarsely-toothed pointed leaves, while Water Figwort has bluntly-toothed and bluntly-tipped leaves. Different views of the lakes opened up and first 2 Goldeneyes *Bucephala clangula* were spotted, then there were good views of a party of Goosanders *Mergus merganser*, with 4 green-headed males and 3 red-headed females. Columns of white marked the favoured roosting trees of the Cormorants *Phalacrocorax carbo*. Turning round, the group then headed back downstream, following the Blackwater Valley Path beside more recent gravel workings at the western side of the site. Both Cut-leaved Dead-nettle *Lamium hybridum* and Red Dead-nettle *L. purpureum* were in flower beside the track. Other flowers along this section included White Dead-nettle *L. album*, Yarrow *Achillea millefolium*, Dandelion *Taraxacum agg* and Hogweed *Heracleum sphondylium*. On the walk back past the bird feeders, Reed Buntings *Emberiza schoeniclus* were added to the species tally. Amongst a big flock of Canada Geese were three Barnacle Geese *Branta leucopsis*, with white faces and grey backs.

I would like to take the opportunity to thank all the members who have led walks in 2013. 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 Graham Saunders, Jerry Welsh, Gordon Crutchfield and Renée Grayer for their contributions to this report.

MID-WEEK WALKS 2013

Jan Haseler

Wednesday 16 January

Chris Bucke led a walk in the lower Pang valley on Wednesday 16 January, starting from the car park at Moor Copse, a nature reserve of the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT). The temperature remained below freezing, which froze the mud but not the flowing water. Following the exceptional rainfall of the preceding months, water levels were very high for much of the route. 8 members started out along the bank of the Pang. The river was very high, with eddies flowing backwards at the sharpest bends. There were fresh molehills next to the path. Catkins were fully out on a few of the Hazels. After the bridge over the Pang into Park Wood, the route continued along the river bank, emerging from the reserve opposite the old rectory at Tidmarsh. A big Black Poplar on the east bank of the river had the round exit holes of the Hornet Moth near its base. Chris led the party through the churchyard at Tidmarsh and along the pavement through the village, before turning back through the fields towards the Pang. Streams were flowing across what are normally dry fields, posing frequent challenges to all those who were not wearing wellington boots. There were clumps of Mistletoe in a number of trees, in particular Poplars and Hawthorns, with Redwings feeding on the Mistletoe berries. Just upstream from Pangbourne, the party followed the footpath across the valley, then turned south along Sulham Lane. The woods on either side of the road were under water. A Buzzard was sitting on top of a telegraph pole at the side of the road. The next footpath ran above the back gardens of Sulham,

where there was plentiful Butcher's-broom, with a few red berries. There was a single Barberry bush in the hedge next to the footpath. In Sulham Churchyard, the Snowdrops were in flower and there were a few frozen Primrose flowers. The route then continued along Nunhide Lane. At a World War II gun emplacement, a flock of about 2 dozen Goldfinches flew into a tree which posed an initial identification challenge. It was in flower and turned out to be a relatively big English Elm which had not succumbed to Dutch Elm Disease. Crossing the fields back towards the Pang, a Buzzard was seen down on the ground to the right, and not long afterwards, a Red Kite settled on the ground to the left. The final stretch went through the meadows of Moor Copse reserve and once again it was a challenge to get across with dry feet. Just before the end of the walk, a Bullfinch flew across the path. Some of the party then had lunch at the Greyhound in Tidmarsh.

Wednesday 20 February

The sky was grey, the temperature was a chilly 3C and there was a cold easterly wind when Martin Sell led a hardy group of 7 for a walk around the Aston Upthorpe Downs on Wednesday 20 February. Gulls in a long row were resting in the field above the grain store, with the Black-headed Gulls on the left and the Lesser Black-backed Gulls on the right. Soaring Red Kites were much in evidence throughout the walk. The track below Lowbury Hill had deep vehicle ruts and the ground underfoot was wet and slippery, making walking treacherous. A big flock of Lapwings was feeding on the grassy field to the left of the top track, with numbers appearing to be highest in the area with the densest concentration of mole hills. There were good numbers of Starlings and Fieldfares but Redwings were noticeably absent. Martin spotted a small flock of Golden Plovers, with pointed wings and fast flight. The return track was lined with bushes and birds flitted through them, mostly Chaffinches and Fieldfares. As the track descended, several Juniper bushes were noted. Along the final section, a Sparrowhawk and a Buzzard were seen. Everyone then went on to the Red Lion at Blewbury, where there was a welcome fire and three more members joined the party for lunch.

Wednesday 20 March

Chris Ash led 9 members on a walk around the northern part of Aston Rowant National Nature Reserve on Wednesday 20 March. It was a cold morning with dense mist and the temperature was a chilly 3C. The walk started out along the Talking Trail, with wooden sculptures and enclosed audio recordings illustrating various aspects of the wildlife and history of the reserve. First stop was a set of carved posts representing bats echo-locating moths. Further on, a sculpture next to an old chalk pit was a reminder of the human history of the site. Another represented a Hare's ear. The track opened up onto chalk grassland, with enormous numbers of anthills made by Yellow Meadow Ants. The delicate sculpture of a Red Kite marked the location of the view to the north-west, which we were assured would have been the best view from the reserve if the visibility had been greater than a few hundred metres.

The walk continued into the woodland on the steep north side of the reserve. A few big Juniper bushes were growing beside the track. The next Talking Trail sculptures were a Ring Ouzel installation and a delicate structure representing a home for a Dormouse. The route then turned steeply downwards through the woods. The characteristic track-way for the extraction of material led out of a former quarry site. Looking back up the slope, lines of ridges and dips contouring round the hillside hinted of former ploughing and terracing. An unfamiliar tree with black leaf buds and tufted flower buds was identified as a Wych Elm, while silvery leaves on the ground betrayed the location of Whitebeam trees. A number of pieces of fallen wood were stained bright blue-green by the Green Elfcup fungus. At the bottom of the hillside, Chris pointed out a steep valley from which a thicket of Ash had recently been cleared. It was hoped that this would give the scrub layer a chance to develop and provide more suitable habitat for the woodland birds. The route then returned back up a sunken track-way. A steep diversion to the side of the track revealed the site of a former saw pit. At the top of the hill, there was an area with Male Ferns, perhaps indicating a pocket of damper clay. In the same area was a magnificent circle of big cherry trees, probably originating long ago from a single tree. The walk was followed by lunch at the Carriers Arms near Watlington.

Wednesday 17 April

Rob Stallard's walk on Wednesday 17 April followed a figure of eight shaped route, centred on Lambourn. First stop was the churchyard, where there were flowers of Early Dog-violet and Slender Speedwell. The church had an interesting collection of gargoyles, some in the form of green men, and a dog-toothed arch around the west doorway. After admiring the nearby alms-

houses, the 7-strong group walked into Lynch Wood. At the bottom of the wood were a number of springs, from which an abundant supply of water was gushing up, to gather in a blue-tinged pool which is the principal source of the River Lambourn. Within the pool, lines of rising bubbles indicated the presence of further springs. Around its banks were carpets of leaves of Ramsons, with the first flowers just coming into bloom. As well as the smell of Wild Garlic, there was also a strong scent from the flowers of Box, which was widespread in the wood. Two Grey Wagtails were spotted beside the water and the calls of Green Woodpecker, Chiffchaff and Blackcap were heard.

Leaving Lynch Wood, the route crossed back through Lambourn, with House Sparrows and Starlings noted on the way, then followed a footpath upwards across fields to the south of the town, where singing Skylarks were heard. Next stop was BBOWT's Watts Bank reserve. Hairy Violets were dotted across the grass and the first Cowslips were coming into flower. There were numerous round-leaved rosettes of Hoary Plantain. In the wooded area at the far end of the reserve were many Primroses and a few plants of Goldilocks Buttercup. Spurge-laurel plants, with small trumpet-shaped greenish flowers, were growing beside the track next to the reserve. The walk continued up the hill beside Thornhill Copse, where the woodland floor was carpeted with Bluebell leaves, with many Wood Anemones in flower. Cresting the ridge, there was a wonderful view of Lambourn and the valley of the River Lambourn. The path dropped down to the river, then followed the route of the old railway back up the valley. The river was crystal clear, with Stream Water-crowfoot in flower. Most of the party then had lunch in the George Hotel in Lambourn.

Wednesday 15 May

On Wednesday 15 May, a damp and rather chilly day, Martin Sell led a party of 17 for a walk through a mixture of woodland and heathland at Bucklebury Common. There were patches of Bluebells, still at their best even at this late date, clumps of forget-me-nots, and a rather fine expanse of Wood-sorrel. A mixture of Gorse and Heather dominated the open spaces on the Common. Bird life was sparse, but a Raven was spotted being mobbed by a couple of Crows, and at the start, an elusive Garden Warbler was singing from a hidden perch. Climbing Corydalis was not yet in flower, and a few garden "throw-outs", including Lily-of-the-valley and yellow Azaleas, were found, as well as a fine tree of what was probably Bird Cherry, usually found in the North. The walk was followed by lunch at the Bladebone pub in Chapel Row.

Wednesday 19 June

Chris Ash led a walk in the Marlow Common area on the warm sunny morning of Wednesday 19 June. Starting point for the 14 members who attended was Pullingshill Wood, where most of the helleborine plants in the car parking area survived a certain degree of disturbance during the preparation for the walk. The wood contains an area of practice trenches from World War I. The route led steeply down through the woods, then followed the Chiltern Way to BBOWT's Homefield Wood reserve. Thanks to the late spring, the orchids were close to their best, with helmeted Military Orchids, numerous Common Twayblades, Common Spotted-orchids and Pyramidal and Fragrant Orchids just coming into flower. In the south-west corner of the clearing were a number of Fly Orchids – a few to start with, then gradually more as the eyes became attuned to picking them out from the surrounding vegetation. In the north-west corner were a few Greater Butterfly-orchids. A Small Heath butterfly was seen. The walk then continued on the track northwards through the wood towards Woodend Farm. There were more fine specimens of Fly Orchids next to the path, together with White Helleborines.

The route continued through Lower Woodend, then crossed a steep grassy valley. A Meadow Brown butterfly was seen on the way down, while there were Common Blues on the ascent up the far side. There was a pause on the climb up through species-rich grassland to key out a Broomrape flower spike – probably Common Broomrape. Other flowers here included Oxeye Daisies, Restharrow and Fairy Flax. The path then led back into the woods of Marlow Common. Sanicle was in flower beside the path. A white bracket fungus, covered with green algae and growing on a fallen beech trunk, was identified as *Trametes gibbosa*. The walk was followed by lunch at the Royal Oak in Bovingdon Green.

Wednesday 17 July

The walk at the National Trust's Basildon Park on Wednesday 17 July was scheduled to be led by Chris Bucke. He had been leading walks there for the National Trust on Friday mornings for 5

years and these had been very popular. Sadly, Chris died on 21 June so the walk became a memorial to him; 21 members came to walk round the park and share memories of our friend at a place which was very special to Chris. Flowers and greenery were collected to make a bouquet for his cremation service the following day.

The group set out, on a fine, hot day, along the causeway across the pheasant park, passing an old Hawthorn tree. Chris had grown a cutting from this tree and we hope it will be planted in the parkland. The woodland at the top of the park, which includes Guelder-rose and Wayfaring-tree, was pleasantly cool. The route led through an area of well grown Hazel coppice with Dormouse boxes. Speckled Wood butterflies were in flight, and at the turning onto the exit road, there was a bumblebee nest which had been excavated, probably by a Badger. The walk continued through the woodland and past the tallest tree on the estate, a Douglas Fir. Cattle were taking advantage of the shade in the recently established wood pasture, which Society members had surveyed before the new fence was erected. Chiffchaffs and Blackcaps were singing and Silver-washed Fritillaries were seen.

The route then led past the unusually shaped Beech with horizontal trunk and upright branches which is often pointed out by walk leaders, before descending into the hidden valley. Here two Pyramidal Orchids were in flower but the abundant Common Spotted-orchids, Common Twayblades and Adder's-tongue Ferns were past their best. The grassland under the power pylons outside the perimeter wall was then investigated. The first part had longer grass with Wild Parsnip and Wild Mignonette, while on a barer chalky slope there was a good display of Common Centaury. There were many butterflies, including Gatekeeper, Marbled White, Ringlet and Meadow Brown. The walk continued along the shady track outside the wall – on one section Wall Lettuce was growing. A Comma and a Red Admiral flew past. Towards the end of the track, Yellow Bird's-nest (Photo page 38) was emerging from the leaf litter under a Beech tree; last year's flower spikes were also still visible. This unusual plant has no chlorophyll, but is epiparasitic, using *Tricholoma* fungi to extract nutrients from living trees in its vicinity. It is one of the many interesting plants that Chris had pointed out during his walks. There were a few White Helleborines nearby, most with their tops grazed off. The group emerged into the parkland in strong sunshine and took the old track back to the house, passing magnificent Lime trees in full flower, the oldest tree on the estate (an Oak which was planted around 1640) and in contrast the tiny plants of Sand Spurrey on the track. About half the party then adjourned to the Red Lion at Upper Basildon for welcome refreshments.

Wednesday 21 August

Sheelagh Hill led a walk at Nettlebed Common on the warm sunny morning of Wednesday 21 August. The group were joined by Elizabeth Smeeton, the Clerk to the Conservators of the Nettlebed and District Commons, who gave a brief outline of the history and the management of the Commons. First stop was the cricket pitch, where the tiny Bird's-foot and the equally small Slender Trefoil were growing amongst the closely-mown turf. The 12-strong group then continued through a strip of woodland to a number of small clearings which were carpeted with flowering Heather. Two Holly Blue butterflies, a Small Copper and a Silver Y moth were nectaring on the Heather in the first clearing, with small bright orange Vapourer moths flitting across the clearing in the background. The next clearing had several Common Blue butterflies on the Heather. A tall Rowan tree at the back of the clearing was covered in orange berries.

Continuing through the woods, a damp area had Bulbous Rush, Common Yellow Sedge and flowering Tormentil. The many big pits and hollows in the woods were a reminder of its industrial past, supplying clay for the brickworks. Another damp hollow had Hard Fern, with upright inner fertile fronds and larger, brighter green, spreading sterile fronds around the base. Several Common Wave moths were found amongst the Bracken here. The route then led upwards to Windmill Hill, the highest point on the Common. Broad-leaved Helleborine and Slender St. John's-wort were found nearby. Dropping back down through the woods, another damp area had a thin covering of Sphagnum Moss, with several small Frogs nearby. Another damp clearing had Corn Mint, Water Pepper and Common Hemp-nettle. The walk was followed by lunch in the garden of the White Hart in Nettlebed.

Wednesday 18 September

Fred Taylor led a walk, attended by 12, at BBOWT's Warburg Reserve at Bix Bottom on

Wednesday 18 September. A Nuthatch was calling loudly from a tree above the car park. The walk started out along a wide ride, with Wild Marjoram and Wild Basil still in flower. The leaves of Dogwood and Spindle were beginning to turn a dark red. Warden Giles Alder emerged from a work party in the scrubby woodland below the path to talk about habitat management. He reported that numbers of Adders on the reserve continue to decline. An apple tree at the side of the ride was heavily loaded with fruit. The leaves appeared to be hairless underneath and there was some debate as to whether or not it was a Crab Apple. But another tree a little further on, with smaller and much sourer fruit, was a more likely candidate.

The route led up a track for a short distance, before turning into an open meadow area. The unrelated Spurge-laurel and Wood Spurge were noted growing together on the bank next to the track. There were good numbers of Chiltern Gentians in the meadow area, particularly on the south-west facing slopes, and a Speckled Wood butterfly was seen. The walk continued up the track to the top of the reserve, then followed a footpath gently down the side of the valley and back up the other side. A yellow wax-cap fungus was spotted amongst the grass in the field. At the top of the first field, droplets were oozing from a big Oak Bracket fungus at the base of a hedgerow tree. The next field had a wide margin with flowering mallow, knapweed and thistles. The walk continued down through the woods and back to the reserve centre. Towards the end, the sun came out and white butterflies began to fly, together with several dragonflies.

Wednesday 16 October

Sheelagh Hill led a circular walk, starting from the Rising Sun at Witheridge Hill, on Wednesday 16 October. The rain fell continuously and sometimes heavily throughout the walk, but that failed to deter the 8 hardy souls who set out. The hedgerows were full of fruit – including sloes, rowan berries, holly berries, elderberries and crab apples. The leaves on the trees were still predominantly green. The route followed footpaths across fields to the Nettlebed Road, then continued on a track along the edge of Highmoor Common Wood. There were some big clumps of Honey Fungus and a fallen branch had a jelly-like cup fungus. Continuing into Holly Grove, a large wood pile was at an interesting stage where the forest floor species were taking over from the rotten wood fungi. Wood Sorrel, bramble, the first tree seedlings and various ferns and mosses were growing on it. Common Tamarisk-moss had delicate fern-like fronds. Further on through the woods, big red berries and pale-backed leaves on the ground indicated the presence of several Whitebeam trees. The footpath continued through Beech woods, where there was a rich selection of fungi, including Amethyst Deceiver, False Deathcap, Common Yellow Russula, Blusher, Buttercup and much more. Fly Agarics were found under a birch tree. A deep groove in the bark of a large Beech tree was funnelling a veritable stream downwards and there was a big ball of foam where this reached the ground. Next to the path were several small specimens of Western Hemlock *Tsuga heterophylla*, a conifer with white undersides to its leaves. It is an import from western North America and will take over and block out other trees unless controlled. A large clearing had been felled relatively recently and there was heather growing in patches. Returning to Witheridge Hill, a Parasol Mushroom was dripping water off its cap in the grassy field next to the pub. Back at the Rising Sun, everyone enjoyed lunch in the warm, dry and welcoming pub.

Wednesday 20 November

Julia Cooper and Ian Duddle led a circular walk round Sulham Woods on Wednesday 20 November. It was a cold grey morning with a warning of heavy rain on the way. After the first frost of winter, the leaves on the trees were showing autumn colours close to their best. 8 members started from the car park at the top of Sulham Hill and headed southwards across the fields, passing three very different dew ponds. The first was surrounded by big oak trees and had a collection of plants still in flower around the water margin, including Black Nightshade, Redshank and Marsh Cudweed. The second was next to the remains of Sadler's Farm and was overgrown by dense willows. The third was out in the open field, without encroaching vegetation. The route then dropped steeply down through the woods, with oaks dominant at the top and Ash at the bottom, before emerging in the grassy field below, where there were distant views across the Kennet valley to the Hampshire Downs on the horizon. Traveller's-joy and Wild Basil in the field margin indicated that the underlying geology had changed from the Reading Beds of the woods to the Chalk below. Returning to the woods, the path continued through the strip of deciduous woodland which surrounds the conifer plantations of the interior. A collection of small greenish apples on the ground prompted a search in the canopy for the apple tree. Further on, another

apple tree had dropped copious numbers of smaller red apples. Nearby was a plant of Butcher's-broom, with a few bright red berries. There were many different fungi in amongst the leaf litter, including a very photogenic Magpie Fungus.

The route then crossed Sulham Lane near the bottom of the hill and continued into the northern section of Sulham Woods. The leaves on the Beech trees along the western boundary showed glorious autumn colours. A heavy rain band passed through during this section of the walk, but the trees provided a lot of protection against the worst of the weather. Looking down, the beautiful gold and red colours of Wild Service tree leaves prompted another search through the canopy for the parent trees, and several different clumps of trees were located. Then chunky orange-red berries and pale-backed leaves betrayed the presence of Whitebeam trees. There were many fungi in the woods, including a big ring of the Hedgehog Fungus *Hydnum repandum*. Instead of gills, it had spines on the underside and its white stem bruised yellow near the base. There was also a grey twisted fungus at the base of a Beech tree which was tentatively identified as Black Helvella. There were occasional glimpses through the trees of the view across the Pang Valley. The walk continued round the northern end of the woods, with new views across the Thames Valley. The deep call of a Raven was heard from somewhere overhead. At the edge of the woods were several big flat Parasol Mushrooms. The path lead out into the fields, then along a hedge which had Spindle bushes with many pink berries. The final section of the walk was through Vicarage Copse. There were a few magnificent Fly Agarics and a branch covered with Jelly Ear fungus. Patches of blue began to appear in the sky as some of the group continued to the Greyhound in Tidmarsh for lunch.

Wednesday 18 December

The final walk of the year was on Wednesday 18 December, when Gordon Crutchfield led 7 members on a walk from Tokers Green. The weather was unseasonably mild and there were still green leaves on Elder and Spindle, with a thinning cover of tawny leaves on the oaks. The walk started out through a strip of woodland next to Mapledurham Golf Course. Almost immediately, *Stereum gausapatum*, which stained red when scratched, was found on a fallen oak branch. Other fungi in the first section of woodland included the Blusher, Clouded Agaric, Buttercup and Wood Blewit. A Nuthatch called from one of the trees. The path then crossed an open section of golf course before dropping down into Bardolph's Wood (with a fallen Beech trunk across the path as an extra obstacle). The next section of the route followed the lane into Kidmore End. Where it climbed out of a dip, the high banks of the lane were layered, with chalk at the base and dark soil above. Deep animal holes tunnelled into the top of the chalk.

The next footpath led past Kidmore End cemetery and across a grassy field. Small orange blobs on a gate post were identified as the fungus Common Jellyspot *Dacrymyces stillatus*. A flock of Redwings were eating the berries on a tall Holly at the point where the track rejoined Chalkhouse Green Road, near Kidmore House. Luxuriant growth of Jelly Ear on a log in the ditch attracted the attention of the party. A rusty pink fungus with an off-centre stalk was *Rhodotus palmatus*, a species which is found on elm. The log also had the white jelly-like fungus White Brain *Exidia thuretiana*. Further on, Hazel catkins were a surprise find for December. Wood Blewits and Tawny Funnel were found beside the next track, which led back towards Tokers Green. Another section with dead elm logs proved to be good for fungi, with Oyster Mushrooms and some cup fungi belonging to the *Peziza* family. A single specimen of *Agaricus bitorquis*, which has a double ring round its stem and is reputed to be good to eat, was found on the verge. The party then continued to the White Horse at Emmer Green for lunch, where they were joined by 2 more members.

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 Martin Sell and Julia Cooper for their contributions to this report.

INDOOR MEETINGS 2013

Ricki Bull

8 January 2013 The Pantanal – Dr Peter Spillett

The name 'Pantanal' derives from the Portuguese word pantano, which means swamp. The area overlaps Paraguay and Bolivia, submerged for the most part during the rainy season with water levels slowly rising 3-4 metres, and draining slowly from north to south towards the Paraguay River during the drier season. The area thus comprises both permanent and seasonal wetlands, savannah (cerrado) and some forested areas along the riverbanks. This constantly shifting habitat means the water in the Pantanal is never stagnant, resulting in a fertile environment that has nearly 100 different mammals, 50 reptile species, 1,500 types of plants, 650 resident bird species, 400 fish species and over 9000 different subspecies of invertebrates.

The area is one of great bio-diversity with the largest assemblage of animals west of the Serengeti and Peter showed and talked about too many to list here.

Peter visited several parts of the Pantanal – a ranch overlooking the Rio Negra, the border area between Argentina and Brazil at Iguaçu and the northern and north-western parts of the Pantanal.

His first stay at a ranch overlooking the Rio Negra gave sight of the Yakare Cajman. Although there are estimated to be 10 million individuals within the Pantanal, they are not aggressive towards humans, mainly because of the presence of vast quantities of the main component of their diet, the fish, including Piranhas, in the rivers. In the sandy bays it was sometimes possible to catch sight of a Jaguar or a neo-tropical Otter. Other mammal species included Giant Anteater, Wolf, Ocelot and Puma while there were various bird species, including both green and Amazon. Ringed Kingfisher, and the New World Vultures (unrelated to those of the old world but more closely related to Storks). Because of migrants from North America, in some areas birds in both summer and winter plumage can be found. During his time in the Pantanal, Peter saw 20 species of Woodpecker and 20 species of Parrot.

The Iguaçu Falls, 276 separate ones, are on a tributary of the River Uruguay. Around them is an important remnant of the rainforest where Dusky Swifts and Black Vultures can be found while the nests of Oven Birds could be seen along the nature trails that run alongside the falls. In the river are many upper river fish that are both unique and fairly small.

In the northern half is The Pantanal Wildlife Centre. Giant River Otters could be seen along the river as well as the aptly named Snail Kite. In the cerrado forests, an area with trees of limited height and an open canopy, were Termite mounds, along with the Lesser Anteater that can also climb trees looking for bees' nests. Black-tailed Marmosets and Smooth-billed Anis were also found.

Throughout the Pantanal land is being used for farming and areas are fenced off for this purpose. Hundreds-of-thousands of cattle share the fields with endangered species such as the Hyacinth Macaw (endangered due to smuggling) and South American Tapir. There is also some concern that pigs are escaping and out-competing with wild Peccary.

Peter's talk, along with the many photos of the area and the wildlife that he found there, certainly passed on his enthusiasm and interest in the area to his audience.

22 January 2013 British Bees: an Introduction, by Jennifer and Victoria Wickens

There are about 25000 species of bee in the family Apoeida, all of which are adapted to feed on nectar and pollen. Physically all have two pairs of wings with hooks to join the wings together. In flight the second pair is sometimes like a stump.

Comparisons between the numbers of bees in a hive in spring/summer show that:

honeybees have approximately 60,000 per hive

bumblebees have approximately 200 per hive

solitary bees have 1 per nest

Solitary bees and bumblebees die over winter, with the exception of the queen bumblebee that will hibernate, emerging in spring to find suitable nest sites, lay eggs and form a new colony for the year.

The adult solitary bees emerge in spring, males before the female, and find safe nest sites. These nests tend to be on the ground, in leaf litter, mouse holes, bird boxes, under large stones or wood, or in a compost heap. Miner bees can be found on paths or lawns; carpenter bees tunnel in dead wood using their mandibles; mason bees modify cavities in bricks or snail shells, blocking up large holes with mud; leaf cutter bees line a cavity nest with leaves.

All bees collect pollen on their legs in a pollen basket or corbicula. They gather it on their abdomens, then use stiff brushes to sweep the pollen into the basket.

Bees have various behavioural characteristics: Male bumblebees 'hill-top' in which they group together on a higher part of the ground to find the nearest emerging queen and bumblebees can also buzz-pollinate, a behaviour where they hold a flower and shake it with their abdomen, causing the pollen to be released; honey bees use their waggle dance. Bees can scent-mark when landing on a flower, the scent left being recognised both within and between species. Nectar robbing can occur by biting the bottom of the flower to get secondary nectar sources. Male bees can also use flowers to keep warm and dry.

The speakers separated and described various species of bees, solitary and bumble, as well as the bee fly, *Bombylus major*, a bee mimic that is parasitic on solitary bees, finding their nests and flicking its own eggs into them.

Since 84% of European crops could not be easily pollinated without bees, the conservation of the species is important. Whereas honeybees in the public mind are thought to be the most important for pollination, in actuality wild bees pollinate 2/3 of the crops and the decline in both is worrying. There are significant reasons for the decline:

a semi-natural habitat is needed whereas agricultural habitat loss, degradation and isolation have increased

diseases - Varroa mite, foulbrood and nosema fungus

pesticide use - neo-nicotinoids, spillages and incorrect use

herbicides leading to a decrease in flower availability

climate change where a mismatch between timing of flower bloom and bee emergence creates lack of food.

The interesting and informative talk concluded by giving sites where further information on bees can be found:

www.bumblebee.org www.bwars.com

5 February 2013 Darren Mann, The Hope Entomological Collections, Oxford – Just a load of dead bugs

Darren Mann, the assistant curator of the Hope Entomological Collections, gave an interesting and amusing talk about the collections and his special interest in one group of beetles.

The Hope Entomological collections are the second largest in the UK, the oldest specimen being of a Bath White butterfly collected in 1702. The collection of coleoptera of the Reverend F.W. Hope (1792-1862), was donated by him in 1841 (It was Hope who taught Charles Darwin how to collect beetles and Darwin then sent his Australasian beetles to Hope.). There are between 7 and 8 million specimens kept in 30000 drawers, each one holding between 100 and 4000 specimens.

Within the collections are many type specimens (the original from which the species description has been based) and in examining the collections over the last 5 years, approximately 1400 unrecognised types in the main collection have been found. Type specimens are important to enable identification, and to create a reference for future identification which cannot be done in the field. Although there has been concern in modern times about making collections, the estimation of the number of insects killed by the car of c.4.62 trillion greatly outnumbers any killed by collectors.

The conservation of the collections is difficult, time-consuming, expensive and poorly funded. There is a need for pest proof storage, as well as a more systematic arrangement. Conservation includes using acid-free card and paper, water-soluble glues, and making permanent mounts using stainless steel. To compare costs, Darren gave the example of the £7.63 million given to the Ashmolean to purchase a Manet painting; this amount would have been sufficient to conserve c.10 million insects in the national collections.

Darren continued by talking about beetles that are of great interest to him – dung beetles. The most famous dung beetle historically was the *Scarabaeum sacer* or sacred scarab of Egypt. Dung beetles contribute to the ecology by freeing nutrients for recycling, decreasing parasites and in some cases helping in seed germination by rolling dung with some seeds and burying them. Dung beetles may be rollers, rolling dung into round balls which are used as a food source or a brooding chamber; tunnellers, burying the dung wherever they find it; or dwellers, simply living in manure. One of the predators of the dung beetle is the hornet robber fly which eats their larvae. However, in some cases, the chemical content of the dung can render it too liquid, thus drowning the beetles that would ordinarily help in its decomposition. Restrictions on the use of agro-chemicals that were allowable 30-40 years ago assist in limiting these effects although there are chemicals still used in farming that do affect liquidity and therefore the beetles.

The Hope Entomological Collections website is: <http://hopeyoulikeinsects.com> where you can find more information about the collections.

19 February 2013 Otters of the World by Dr Daniel Allen

There is only one species of Otter in the UK, the Eurasian Otter. The speaker became interested in Otters when he was only six years old after he had seen the film 'Tarka the Otter'. He showed us a short film of Daphne Neville, an 80 year old lady who has travelled the country showing her Otters to audiences in order to raise awareness of the species. It is especially important that young people can see and stroke them, because they may remember that experience all their lives and are much more likely to become conservationists in the future.

In the late 1970s, the Eurasian Otter was on the verge of extinction in the UK, because of toxic pesticides which had leached into the rivers and because of persecution by fishermen. Otter hunters were the first to raise the alarm about the steep decline of the species and called for measures to halt this, such as making the Otter a legally protected species. This law came into force in 1978 and the most toxic pesticides were banned. Furthermore, 17 Otters were raised in captivity and released into rivers. Since then the numbers have strongly increased and they have now been spotted in every county of the UK, although there are only very few in Kent, the last county into which they moved. The total number is estimated to be 10,000 at the moment, but it is very difficult to count them, because they move around a lot and do not stay in the same location for long. Therefore, the same individual can be counted several times during surveys. It is also difficult to see them, so their spraints are often counted instead.

There are 13 species of Otter in the world. The Oriental Otter is a popular species and it has got

'hands'. The longest Otters are 2 metres in length and occur in South America. They live in matriarchal groups. The fur trade was a big problem for this species in the 1960s, but now the people in South America realise that these Otters attract tourists and are worth more alive than as fur. Their numbers are still dwindling, however, because of predation by Caiman. The rarest species is the Hairy nosed Otter; only 300 are left in the world. They look like the Eurasian Otter and live in South-east Asia, e.g. Cambodia, where they were hunted by fishermen, but fortunately, the attitudes are now changing. However, pollution and the increasing human population in the area are further threats.

Another interesting species is the Sea Otter, which has the densest fur of any mammal, 165,000 hairs per square centimetre. There are three subspecies of the Sea Otter, one in California, one in Alaska and one in Siberia. The Siberian subspecies has got attractive fur, which became popular in China and subsequently in many other countries. Its fur was called 'soft gold' and between 1760 and 1910 the subspecies almost became extinct. Now it is protected and doing reasonably well. The Californian Otter only occurs in a small area and therefore could be easily wiped out by a disaster such as an oil spill. In addition one land mammal was indirectly killing it; the cat. Their litter used to be flushed through the toilet in California and this contained the parasite *Toxoplasma gondii*, which was lethal to Otters. People now get charged when they flush cat litter through the toilet, but predation of the California Otter by killer whales is an increasing threat.

In some cultures skins of Otters are used in the traditional clothing, e.g. part of the dress of Tibetan women, or Otter organs are used as medicines, e.g. in Indonesia, and it is difficult to change these traditions. But there are also some positive stories about Otters, such as that of St Cuthbert, who walked into the sea and prayed. When he came out of the water, two Otters followed him and licked his feet. This stayed a secret until the man died and this was the reason they made him a saint. In Bangladesh Otters help fishermen to catch fish.

During the discussion afterwards it was asked how old Otters could become. The speaker answered that they could become 20 in captivity, but in the wild usually not more than 3-5 years, because many get killed by cars. (Notes by Renée Grayer)

5 March 2013

Dr Phil Baker – Urban Cats

In the past few years the urban cat has been the recipient of adverse publicity. A study in the US published this January showed that free-ranging domestic cats cause 50% of the deaths of birds and is likely to be the single greatest source of anthropogenic mortality. Dr Baker has been researching whether there is any evidence that pet cats are causing wild bird populations to decline in the UK.

Cats are the second most popular pet, giving rise to a multi-million pound industry relating to their food and veterinary needs. Their influence, as well as that of other pets, on human health indicates that they are good for reducing stress, as well as for companionship; conversely a negative influence on urban bird numbers could negate the positives. Cats number 200-250 per square kilometre in urban areas whereas the fox population is about 10 over the same area.

Pet cats do kill wildlife. They are a specialised carnivore lacking key enzymes linked to the synthesis of some amino acids. These enzymes must be had from food. Historically people were unaware of this and food given to cats did not fulfil this need. In comparison with humans, cats have a high ecological footprint. In terms of global hectares (for definition of global hectare see <http://www.ecohousefootprint.com/content/view/213/122/>) an average American person requires 9.5gha, and a Welsh person 5.4gha. The footprint of dried cat food is 1.03gha, e.g. 5 cats have similar requirements to one Welsh person.

In formulating a study of the effect of the domestic cat, consideration had to be made as to what comparisons to use. Looking at past studies, some used prey animals brought home, multiplied by a conversion number to estimate the number killed and compared this to prey density. When radio collars were used in New York 30% of prey were returned, in Scotland, 12.5% and kitticams in Georgia cats showed a return of 24%. Therefore the conversion factor would depend on which studies are used to give a base rate. As for prey returned alive, an assumption was made that none

would survive. Looking at the RSPCA data 75% of recovered prey died or had to be put down whereas 26% survived to be released but survived only because they were in care, a situation not usually available to the prey of the average domestic cat.

The results of Dr Baker's study showed that most prey were mammals - 66% with most being Wood Mice, then unidentified mice. Rarer were a Grey Squirrel, Mole, Pipistrelle Bat, and Weasel. 31% were birds, mostly Blackbird, Robin and Wood Pigeon; there were also some amphibians and Slow Worms.

Most cats in this study returned very few prey with only 20% of those studied over the 4 – 8 seasons returning 4 or more prey. Over the seasons, greater numbers were returned in the summer, fewest in the winter. There was a large variation between the kilometre squares and in some areas cats were not having a real impact.

Further work was done in looking at the quality of the prey – whether were they poor quality animals likely to die anyway: analysis showed that cats killed those with less fat and muscle compared to the average of the breed. Urban birds, however, are having their diets supplemented by human feeding and other studies have shown that these birds that make use of the bird feeders have less subcutaneous fat. Therefore the birds killed by cats may not be of as poor condition as it would first appear but on the whole are still more likely to be of a poorer quality.

The conclusion in Reading from this study is that most cats do not have a great impact, although in some sections they are collecting significant numbers of birds. The cats are likely to be killing poorer quality individuals and overall the general impact is likely to be small. However, a Birmingham paper published in 2012 showed that even the presence of a dead cat can introduce stress to nesting birds. If placed near the nest for 15 minutes, the result was a decrease of 1/3 in the amount of food brought back for the chicks for the next 90 minutes. Magpies tuned into this distress increasing their predation by 20%. This would have a serious impact for the population. Moreover there are more questions to be asked – if cats are killing poor quality birds, are Sparrow Hawks taking better quality birds because of the competition; are rural birds migrating into urban areas and thus shoring up the urban bird population (since the urban bird population is not in a consistent decline).

Dr Baker's talk informed us but also led us on to an interest in the questions for further research.

19 March 2013 AGM and Members Meeting

The average attendance of members and guest at indoor meetings for the year was 44.44. There has been a decline in average attendance over the past three years. Thanks were given to Renée Grayer for her help with notes on the talks.

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The Committee held four meetings this year, all at the home of Jan Haseler for whose hospitality the committee is most grateful.

The committee lost two members this year: Fred Taylor who moved out of the area and our Vice President, Chris Bucke, who died this past June. We were very grateful to Graham Saunders who was willing to come back onto the committee and fill the role of Vice President. His support is much appreciated. Susan Twitchett was a welcome addition to the committee as Winter Programme Secretary. David Cliffe and Chris Ash used their design skills for the new RDNHS poster, a colourful and attention-grabbing addition that can be used for display both at events and for publicity. David Cliffe also wrote an article for The Pangbourne Magazine – this should help us publicise the worthwhile and interesting programme that RDNHS provides. The Committee is grateful to Fay Newbery who accepted the responsibility of Lichen Recorder for the society, a position vacant for the past year.

The Committee thanks the many members who supported our Outreach activities this year. The CBBC event in Christchurch Gardens was a main event, drawing 5000 people the first day and 7500 the second. The thanks of the committee must go to Tricia Marcouse who did much of the organisation for this event and to Kit Brownlee who provided much of the display material both for this event and for the Earley Green Fair. Other Outreach Activities included assistance with two days of children's activities at Basildon Park, Mothing at 5-a-day Market Garden and participation in the Bioblitz at the University of Reading. Walks at Basildon Park continued through the beginning of December and restarted in February. Although Fred Taylor and Chris Bucke will be sorely missed, we are pleased that Dick and Christine Croker, Jan and Laurie Haseler and Jean Hall will be walk leaders this year. We must also thank Colin Dibb who will no longer be leading regular walks at Basildon, but whose leadership and organisation of the group over the past year has been invaluable.

Lists of the equipment and books received from the OPAL grant have been published on the website in order to encourage members to borrow items for their own use or for use in any community activities that promote involvement in natural history. Storage of equipment remains a problem, and its lack of easy accessibility to members is exacerbated by the lack of an Equipment Officer. Our Opal equipment is at various locations, all noted on the website and relevant contact details are also listed there. Awaited storage at Pangbourne Village Hall has not yet come about.

Chris Raper has set up a Forum on the RDNHS website which Committee members are learning to use in order to encourage members to enter any interesting information and sightings. The committee has just begun to look at the possibility of offering the members the opportunity to use online recording for observations, which would then be available to both our recorders and national recording schemes.

Risk assessments for mothing and walks have also been published on the website. Walk leaders will be advised to take the Risk Assessment form on their walk as well as Mobile phone and First Aid Kit.

Publication of car-sharing lists to members who wish to be included in the scheme was somewhat delayed. These have now been sent out and it is hoped that this will assist to both encourage members to attend events while also enabling them to reducing the costs of doing so.

Whilst considering costs, the committee agreed to raise the cover price of the Reading Naturalist (for non-members) from £3.50 to £5.00. Tea and coffee charges were increased to 30p from the autumn. Postage prices for the Reading Naturalist and other committee business were kept down by members of the committee who hand-delivered these throughout the greater Reading area.

Honorary Membership was conferred on Michael Keith-Lucas. In spite of his extraordinarily busy life, Michael finds time to lead excellent outings, walks at Basildon, has been an effective Winter Programme Secretary, president of the society, and together with Jose has organised refreshments for the winter meetings for years.

1 October 2013 Dr Owen Mountford – From Wilderness to Cabbage patch to a new Waterland – Changing Face of Fenland

Dr Mountford spoke about the attempts to take us forward to a greener fenland, the fenland area having declined 99.9% since 1600, leaving only Wicken, Holme, Wood Walton and Chippenham Fens surviving. Technological improvements from wind to electric pumps allowed the draining of the fenland while the diversity and frequency of wetland plants and animals decreased. From primeval wetland through grazing marsh, wet woodland, acid bog, old wet grassland, open water, bare mud and saline tidal areas, there was geographical variety in the area. Much it was modified through tidal control, drainage, peat cutting, felling and urbanisation.

Conservation programmes in the Fens recognise that any attempt to preserve fenland in the natural state by excluding all human influence would eliminate the species that they wish to conserve. Between 1900 and 1990 any areas thus managed (eliminating human influence) yielded a 75% coverage of scrub. In addition, there is recognition of the need for income streams for the upkeep of the conservation areas. These can be stimulated through providing for visitors, amenity usage, and the promotion of fen products; as well as from farming.

Restoration requires a prior audit of wildlife, tracing the declines and finding where the species which are important for the area survive but also looking at the hydrology, agronomy, socio-economic and visitor possibilities. The project is focussing on the Great Fen reserve and Wicken Fen. Wicken Fen is a flagship SSSI site surrounded by agriculture, Management includes the yearly harvesting of sedge plants which are then sold for thatch, the use of Konik ponies and Highland cattle to prevent scrub regrowth, and creating additional wetland to protect vulnerable sites. In the Great Fen, focus is on managing scrub and connecting open water areas through a network of paths and waterways, while working with farmers and local private landowners. The wish is to enlarge this area to 3700ha. In these areas there are piecemeal purchases of land as well as working with the farming community and the management of land advances at different rates. Other organisations such as the RSPB have purchased large acreages that they have remodelled for their uses.

Conservation in the Great Fen and Wicken Fen requires an understanding of and management of water levels: Water depth and flow is important – floodplain areas, understanding the different water needs of the areas and how to best provide them, where and how water influences the area – rivers, hydraulics, water table levels and output, as well as inputs through rivers, ditches and rainfall. Any change in the natural level affects both the wildlife and the farming in the area and the management studies have taken the opportunity to look at the wild habitats and their requirements – reviewing where habitats can be created or modified, the priority areas and therefore what should be created, and the buffer zones that can be provided.

Dr Mountford's thorough explanation of the project enabled us to understand the processes and values by which such a large landscape project is developed and the implications that each decision yields not just for the project but for the area around it.

15 October 2013 Dr Malcolm Storey – Fungi in the Garden

Malcolm spoke about fungi as both friends and foes in the garden and how to care for or avoid each. He left us with an understanding of the species, habits and effects of various types of fungi.

Foes are plant pathogens (causing disease in plants); some have a wide range of hosts but most are highly specific; most are on vegetable, fruit or trees rather than garden flowers (which have not been in cultivation as long). Some well-known ones such as honey fungus actually have both a variety of species, some more destructive than others, and a variety of woody hosts – including, and this was surprising to most of the audience, strawberries.

Blights, though not fungi but an oomycete or water mould, were also described. Potato blight (*Phytophthora infestans*) suddenly spread onto tomatoes in Berkshire in the 90's but it also affects tobacco, aubergines and of course potatoes. It overwinters on living potato plants, including sprouting tubers left in the ground from the previous year. Another *Phytophthora* (*ramorum*) or the

sudden oak death spread from the USA and also affects the Japanese larch while *Phytophthora kernoviae* affects beech, rhododendrons, heathlands and the bilberry. These can be spread by walkers through footwear or dogs that have not been washed after having walked in affected areas. *ramorum* and *kernoviae* are notifiable diseases.

Fruit rots (*Monilinia fructigena* on apples, *Monilinia laxa* on plums) overwinter on fallen fruits. They can be controlled by good hygiene, removing infected fruits from the area and burning them and any infected material. Rusts, smuts and mildew comprise other pathogens. Rusts are host specific, with a life cycle of up to 4 stages on one or 2 different hosts. Hollyhock rust (*Puccinia malvaceae*) also affects mallows, *Lavatera* and *Sidalcea* while *Phragmidium mucronatum*, rose rust, affects cultivated, field and dog roses.

There are not many smuts which affect garden plants. *Microbotryum lychnidis-dioicae*, affecting red campion, is spread by insects visiting the flowers, taking over the female plants and converting them to pseudo-males with pseudo-anthers containing the spores. *Ustilago maydis* (maize smut) is an economically important fungus which infects the stems, leaves and flowers of sweetcorn and may cause severe crop losses yet in Mexico it is known as Huitlacoche (also spelled cuitlacoche) and is harvested and treated as a delicacy. The earthy and somewhat smoky fungus is used to flavour quesadillas, tamales, soups and other specialty dishes.

Powdery mildews in the order Erysiphales are typically host specific affecting species such as the evergreen spindle (*Euonymus japonicus*), Guelder Rose, Hazel, etc. It is one of the easier diseases to spot as its symptoms are quite distinctive. Infected plants display white powdery spots on the leaves and stems. Downy mildews are another oomycete that are also host specific. They have no brown or black dot and are often lavender-tinged. Welsh Poppy mildew and Hebe mildew are examples of these.

Fungal friends include both edible fungi – honey fungus, oyster mushrooms, blewits and some parasols but also mycorrhizal fungi which form intimate symbiotic associations with plant roots. The name itself reflects the association, *myco* meaning fungus and *rhiza* meaning roots. They increase the reach of the plant's roots, allowing the tree access to additional soil and nutrients and benefitting from the fungus's ability to absorb phosphate and pass this on to the tree in a useable form while the fungus gains access to carbohydrates from the tree. Many different species of fungi can form mycorrhizal associations.

Additional helpful fungi for gardens include recyclers, colonising, for example, compost heaps and woodchips, helping them to break down. Fungi such as *Gymnopilus dilepsis*, Australian Giggling Gym, have been brought in on imported woodchip and the name might give an indication of the toxic and hallucinogenic effect that it has on man. Ornamental lawns, particularly those that are unfertilised, may be colonised by earth tongues, waxcaps, club fungi or *Entoloma bloxamii*, the Big Blue Pinkgill.

5 November 2013 Martin Townsend: Oak Processionary Moth; History and Life History in Berkshire and elsewhere.

Martin is a consultant ecologist and at present Contract Forestry Commission Plant Health Inspector in Berkshire. He is specialised in monitoring the Oak Processionary Moth (OPM), *Thaumetopoea processionea*, fam. Thaumetopoidae, which he did for Richmond Borough Council from 2006 and in the last few years for Pangbourne and surroundings.

The OPM is a native from continental Europe and has only recently occurred in the UK. It is one of five species in the family that has toxic hairs. It is an important forest and human health pest and millions of Euros and Pounds are yearly spent on its control. Its range now covers most of Europe except Scandinavia, but it is spreading fast. In 1996 males were recorded in Dorset as natural windborne migrants, which did not cause harm. Probably about ten years ago eggs were accidentally introduced into the UK on an imported oak, which was planted in London, but the larvae were not discovered here until 2006.

There are some 50 species of oak (*Quercus*) and most of them are attacked by the OPM moth, including American species. Whole trees may be defoliated, and as this happens late in the

season, no new leaves can be produced until the next year, whereas most other caterpillar species attack the leaves earlier giving the trees time to recover. The OPM eggs are usually laid high up in the tree and after they have hatched groups of caterpillars move in a procession. They descend downwards while eating the leaves and sometimes even ascend neighbouring trees.

They have a definite effect on human health, caused by the thousands of minute barbed hairs on the back of the OPM caterpillars when they mature. These hairs contain a toxic protein called thaumetopoein, which causes painful sores, conjunctivitis, etc. and even anaphylactic shock in some people. The susceptibility of people varies greatly, but sensitisation occurs with repeated exposure. Dogs, horses and other animals are also affected. The larval hairs readily detach and become airborne. Therefore effects are experienced without direct contact with the larvae. Even if the larvae are killed, the nest and residues are still toxic as they are full of hairs, and they can be persistent for years. The adult moths are harmless, however.

There are several stages of infestation. Firstly, the exploration by males only, followed by dispersing of females to nesting sites. The nests are high in trees and often unnoticed. The third stage is colonisation, which usually starts within two years from the first infestation. At the end there are small nests on almost every oak in the neighbourhood, but no mass defoliation yet. Next is the plague stage, with thousands of caterpillars on most trees and then defoliation occurs.

The Forestry Commission Plant Health Service is the lead agency trying to control the pest. The initial policy was eradication and surveys began in 2006 on behalf of borough councils. There is now legislation that oaks taller than 2 m are prohibited from import unless free of symptoms for the last growing season and accompanied by a Plant Passport. In Yorkshire the OPM was found on two sites in 2009/10, but eradicated. In Pangbourne it was found in October 2010, the source being one tree imported in 2008 before the legislation came into force. Eradication in Pangbourne is ongoing and aerial spraying has taken place this year in the affected woodlands. The Forestry Commission has now received a recent injection of government funding for monitoring and combatting the pest.

As to the life cycle, there is only one generation per year. The eggs are laid in batches ('plaques') on a twig, most often in the top of a tree in the upper canopy. These are difficult to locate due to the small size, height from the ground and colour, which matches the twig. They are covered with scales from the abdomen of the female. The eggs are laid on the same place each year. The larvae have six stages in their life cycle, so five moults before they change into pupae. The first two instars are not toxic as only the older larvae develop the toxic hairs. The larvae are communal, in tight clusters at first, and they form silk nests from the time they are half grown. From the 2nd or 3rd instar they are mobile and move around in groups in the canopy. Later they may congregate lower on the trunk. They have a black head and greyish body which develop 0.2 mm hairs, which are small but enormously sharp.

The oak branches get completely wrapped up in silk when the larvae get older. Nests are often domed, tent-like, on the trunk or under a branch, but it thought they avoid ivy, because that can grow over the nest. Cast skins are visible on the inside and outside of the nest, giving it solidity and protection. In June/July the pupae are formed inside the nests in a tough cocoon. The adults come out in July – September and live only 2-4 days. The moths are grey and have a feathery thorax, especially the males. Their wingspan is ca. 20 mm and that of the female 25 mm. They are nocturnal and therefore not often seen, but both sexes are attracted by light. Some moth species have similar larvae that live in clusters such as the Buff-tip, but there are no silk nests and Brown-tail, the larvae of which do make tents of silk, but these are usually around twigs, so experts can see the differences with OPM larvae.

For the surveys of larval nests good binoculars are necessary. The tree has to be inspected from different angles. Feeding damage may give the larvae away. However, other things such as callous growths, spider webs, fungal growth etc. can cause confusion. The moths can be monitored with pheromone traps (the males) and light traps, which is happening in neighbouring areas (e.g. in Sulham Woods this year). Nest removal is a dangerous job, because the nests are full of the toxic hairs, even after the larvae have been killed. For killing the larvae the insecticide deltamethrin (a synthetic pyrethroid) has been used and also a biological agent, Bt (*Bacillus thuringiensis*). The

canopy of the trees is targeted by the sprays, as the OPM larvae are mainly there and other caterpillars and insects hopefully less so.

There were many questions from the audience after the talk. (*Renée Grayer*)

19 November 2013 Professor Ben Sheldon: Half a century and counting: populations studies of the Great Tit population at Wytham Woods.

Professor Sheldon began by outlining the history of the project. David Lack, a schoolmaster at Dartington School in Devon, was recruited to be the first director of the project in 1947 - its purpose being to study the population, how long they lived, the numbers of offspring and where they went. Initially the project was to study Robins but Lack heard of Tinbergen's work with the Great Tits in the Netherlands and felt that Great Tits were more useful than Robins since approximately 99% of Great Tits prefer nest boxes for breeding, whereas Robins will happily choose to breed in hedges, etc.

Lack first set up his study in one part of the Wytham Woods, then expanded the area after a few years. Between 1960 and 2012 the population increased from 109 to 479 breeding pairs, and more than 12500 families. Long-term studies have allowed the researchers to explore change over time, study rare processes and take advantage of both new technology and what Professor Sheldon called 'serendipitous science', that which suddenly arises out of what one observes.

One concern is the projected global rise in temperature and the effect that it might have on bird population. The projected rise in temperature is comparable to that which birds have experienced in the past but the speed of the change is far more rapid.

The Great Tit particularly eats the caterpillars of the Winter Moth, a moth that relies on Oak trees. The caterpillar development dates are reliant on the timing of the Oak bud burst. As the large broods of Tits rapidly grow there is extensive use of bi-parental care and the timing of the brood regularly coincides with what is termed the half-fall date – the date at which the 5th instar of the caterpillar falls and pupates. Both caterpillars and Tit dates can be strongly predicted by the early spring temperatures that affect the bud burst as the caterpillars and Tits shift their dates by the same amounts. Interestingly, this has led to the birds laying their eggs 2-3 weeks earlier than they did in the 60's. A study of individual Tits as well as the population shows that the individual birds change of dates has been the same as that of the population at large, i.e., what the individuals are doing is the same as what the population itself is doing across the years. The Great Tit then works well with changes in temperature but, of course, other species may not and may then show the effects of a lack of synchronisation of their breeding patterns compared to the availability of food.

An example of a study of a rare process, one that occurs infrequently over time and/or over a population, is the study of inbreeding within the population. All the young Great Tits are caught, ringed and measured in the Wytham population and their ancestry can be traced back (some for 34 generations). In a sample of over 4500 pairs, only 13 bred with a first cousin or grandparent and only 45 with a brother, sister or parent. Following these, it was found that at each stage inbreeding had a negative impact, as much as a 60% inbreeding depression (lack of success in brood size, number of successful fledglings, etc.). Looking at the interaction of individual birds, the inbreeding was associated with a failure to disperse from where the bird was born.

Avian pox is one example of the studies which Professor Sheldon refers to as 'serendipitous science.' Paridae pox was first seen in Britain in 2006; In Wytham it arrived in 2009 and in one year 10% of the bird population of Wytham was infected, varying in mixed flocks between 5% of Great Tits to none of the Long-tailed Tits. Looking at the diseased birds, the researchers found 15% difference in survival rate as compared to healthy individuals, and production of the same size broods but offspring having a much lower survival rate. Further research possibilities include looking at any immunity in recovered individuals, effect of population density and of supplemental feeding (do birds congregating at bird feeders succumb more readily to avian pox), and whether the pox can be passed on to offspring.

Technological advances have led to new opportunities for studies of the Tit populations in Wytham.

Remote sensing, using satellite images to characterise the environment, has led to studies on the effect of spatial greening on the individual birds. Electronic tagging, such as the PIT tags (Passive Integrated Transponders) have enabled studies of the interactions of individual birds, leading to looking at social networks and 'personality.' Social relationships study the extent to which individuals occur together in the environment while one of the studied aspects of 'personality' measures the rate in which the bird explores the environment and is correlated with boldness and aggressiveness. These studies have led to further investigation into social learning in the wild populations of Tits within Wytham.

The members present were led through informative and well-documented research and left the lecture with a much greater understanding of the work that has been done over time and the possibilities opening for further study.

3 December 2013 Chloe Hardman – Wild-life Friendly Farming in the UK

Land use for modern agriculture is the major cause of wildlife decline. To help inform decision-makers on the cost-effectiveness of putting schemes in place to increase biodiversity, an attempt is being made to define and to put a value on what ecosystems provide to people (Ecosystem Services). One example for consideration is that insect pollinators support 95% of world food production; the cost of pollinating these crops either by hand or with some form of mechanical means would be prohibitive.

Farmland diversity in the UK has declined steadily: Birds by an average 50% since the 1970's; Bumblebees and Solitary Bees by 52% between 1980 and 2006; Honeybees by 54% from 1985 through 2005. Agricultural intensification, loss of semi-natural environments, a decrease in mixed farming, changes from spring- to autumn-sown crops and from hay to silage have all contributed to the decline.

Chloe presented a thorough and interesting presentation of the current agri-environmental schemes and the proposed changes in the EU Common Agricultural Policy (CAP). The new CAP, although not yet finalised, looks to a combination of a direct payment aiming to reduce the discrepancy in levels between farmers, regions and member states (All Member States will be obliged to move towards a uniform payment per hectare at national or regional level by the start of 2019) and what is referred to as 'greening.' The greening part of the payment would help to maintain permanent pasture, ensure a mix of at least three arable crops on a farm, and an ecological focus on at least 7% of the farm. Farmers would be obliged to fulfil certain criteria such as crop diversification, maintenance of permanent pasture, and the preservation of environmental reservoirs and landscapes.

On arable farmland, conservation areas can be created through tussock grass, wildflower mixture, pollen and nectar mixtures, natural regeneration and conservation headlands (areas at the crop edge where herbicide, pesticide and fertiliser is sprayed less intensively and more selectively than in the main crop area). Where this has been studied, the pollen and nectar mixes encourage the greater number of bees but the seasonal constancy and longevity of the flowering mixes creates some difficulties. For birds, the lack of overwintering stubble that accompanies the trend to autumn sowing has been a factor in the decline. For plant and leafhoppers the species richness is highest in most extensively managed areas of buffer strips

Chloe's current research studies the comparative biodiversity benefits for organic farming, conservation grade farming, and farms on the Entry Level of the agri-environmental schemes. Conservation Grade Farms (CG) (<http://www.conservationgrade.org/nature-friendly-farming/>) receive a contracted price for their crops in return for adopting specific criteria and percentages for environmental practices. An explanation of Entry Level, the first and least restrictive level of Environmental Stewardship schemes, can be found on the following website - <http://www.naturalengland.gov.uk/ourwork/farming/funding/es/els/default.aspx>

From the controlled studies of groups (one each of the three different types) of farms in four different areas comparisons in numbers of wild bees, pollination services (proportion of seeds set) and winter birds were noted. Wild bees in grass were higher in CG Farms, but in crops Organic

farms had a higher percentage, possibly due to flowering weeds within the crops. Winter bird food was more available in the ELS and CG Farms and seed eating birds were more abundant on CG than on Organic. In more than 300 British Bird Survey squares, only 10 species benefitted from the ELS schemes, some were unaffected and some adversely affected.

The results showed that, although the sample size is relatively small, the effect of ELS is limited. Limitations of current programs may arise from vague objectives and lack of monitoring. In the more controlled programs, the very strict management may discourage farmers' participation. Chloe suggested some alternative solutions—

Paying by results (to produce increases in wildlife) includes planting indicator species. Positive aspects are cost effectiveness, the use of a farmer's knowledge and experience, and farmers' receiving the credit for their successes. However factors beyond one farmer's control might affect results and the possible difficult and expensive monitoring could make this less cost-effective.

Targeted adaptive management allows a focus on creating and maintaining areas to encourage specific species. An example in Scotland of management for corn buntings led to an increase of 5.6% in targeted areas, no change under general environmental schemes and a decrease where no schemes were in place.

The talk left members with a greater understanding of the workings of the schemes and their strengths and weaknesses but also with thoughts of future possibilities.

17 December 2013 Christmas Party

The Christmas Party, held on the 17th December, was thoroughly enjoyed by all who attended. Mulled wine provided by Michael and Jose Keith-Lucas warmed us in body and mind for the usual quizzes and photographic competition, and a talk by Rob Stallard on Ancient Trackways in Wessex, while the tables were full of tasty treats brought by members.

Photographic Competition 2013

David Cliffe – competition coordinator

RDNHS Photo competition 2013 Category winners are:

Small Is Beautiful – Mayfly: Rob Stallard

Little and Large – Beech tree and masts: Rob Stallard

Three of a Kind – Mandarin Ducks: Rob Stallard

Nature In Action – Slow worms: Ian Duddle

Driven To Abstraction – Reflections: Rob Stallard

Colour Prejudice and overall winner – Blue-grey Tanager: Ian Esland

Pattern Perfect – Araucaria araucana: David Owens

Against All Odds – Dragonfly: Jenny Greenham

Photographic Competition 2013
winning photographs (see page 34)



Blue-grey Tanager: Gardens of the Arnos Vale Hotel, Tobago

Overall winner and winner of Colour Prejudice: © - Ian Esland



Mayfly: Cookham

Winner: Small is Beautiful © - Rob Stallard



Mandarin Ducks: Whiteknights Reading
 Winner: Three of a Kind © - Rob Stallard



Slow worms: Tilehurst allotments

Winner: Nature in Action © - Ian Duddle



Reflections: Abingdon

Winner: Driven to Abstraction © - Rob Stallard

Photographic Competition 2013: Winning photographs continued and photographs from outings



Beech Tree (Watership) and Masts (Ogbourne):
Winner: Little and Large © - Rob Stallard



Araucaria araucana: Whiteknights Reading
Winner: Pattern Perfect © - David Owens

Dragonfly, *Aeshna juneau*: Savill Gardens Windsor
Winner: Against all Odds © - Jenny Greenham

Photographs from excursions



Scarlet Elf-cup, *Sarcoscypha coccinea*
Morgaston Woods, 13 April 13 © - Rob Stallard



< Slow worms, *Anguis fragilis*
Bowdown Woods, 11 May 13 © - Rob Stallard



Hoverfly, *Leucozona lucorum*
Dancersend, 25 May 13 © - Rob Stallard



Fly Orchid, *Ophrys insectifera*
Dancersend, 25 May 13 © - Rob Stallard



Water-violet, *Hottonia palustris*
Cock Marsh, 1 June 13 © - Rob Stallard



Adder's-tongue Fern, *Ophioglossum vulgatum*
Kings Barn Farm, Medmenham, 16 June 13 Chris Ash



Beautiful Golden Y, Kings Barn Farm,
Medmenham, 16 June 20 © - Jan Haseler



Yellow Horned-poppy, Dungeness,
29 June 13 © - Laurie Haseler



Sea-kale, Dungeness,
29 June 13 © - Jan Haseler



Knapweed Broomrape, Cottington's Hill,
13 July 13 © - Ian Duddle



Yellow Bird's-nest,
Basildon Park, 17 July 13 © - Rob Stallard



Moth-trapping at Hosehill Local Nature Reserve,
3 August 13 © - Laurie Haseler



Violet Helleborine,
Nippers Grove, 24 August 13 © - Rob Stallard



Phibalapteryx virgata Oblique Striped
31-Jul-13 © - Tony Rayner

PRESIDENTIAL ADDRESS - HOW PLANTS SOLVE CRIME

Michael Keith-Lucas

Based loosely on a talk given on 7 January 2014

For most of my working life I have worked with pollen in sediments, sorting out problems of past changes in vegetation, mainly as a result of prehistoric forest clearance. Much of this has been on Neolithic or Bronze Age sites and has concentrated on the creation of open habitats such as pasture, meadow, heathland and arable land. Before radiocarbon dating, pollen was used as a means of telling the relative age of prehistoric sites, mainly based on the succession of trees as they arrived in this country, following the end of the last glaciation. As techniques have become more sophisticated, the archaeologists have started to ask more demanding questions, such as, 'what time of year did this person die?', which can be answered in special circumstances where wind-borne pollen breathed in with a person's last breaths has not been subsequently disturbed.

From working on questions like this, I have moved into forensic science in the last few years, using pollen and other botanical remains to determine time of death. Pollen tends to lodge in the turbinate passages of the nose, whereas fungal spores tend to be smaller and go down into the bronchi or lungs. Most flowering plants release their pollen during the day, so hayfever (allergic rhinitis) is more likely to occur during daylight hours, whereas fungal spores tend to be released at night, so allergic asthma is more commonly a night-time condition. Now that we have a nationwide risk of hayfever monitoring service, it is possible to find out what pollen was in the air at any time and in any region for every day for the last twenty years or so. The records are held by the Meteorological Office in Exeter, from which wind-borne pollen calendars can be constructed showing how the pollen in the air changes from week to week throughout a year. Wind-borne pollen grains tend to be smooth and dry and of fairly uniform size. In Britain some 10,000 to 50,000 pollen grains fall on each square centimetre per year. This fall-out is referred to as the pollen rain. In one's nose, however, the pollen is concentrated as the nose tends to act as a filter for the large volume of air passing through the nasal passages.

The outer wall of the pollen grain is made of a substance called sporopollenin, which is very resistant to decay and can remain on an archaeological site or a sediment, for instance, when all other evidence has decayed. It is waterproof, elastic, and absorbs in the ultraviolet, thus protecting the genetic material inside, which might otherwise be damaged by UV radiation from the sun as the pollen blows around in the air.

Not all the cases I have been involved with are about determining time of death. The pollen calendar can be used to time many events, such as when a bomb was placed out-of-doors, or whether people have been handling wind-pollinated plants, such as the theft of spirally-cut box trees from a garden centre.

Often pollen is used alongside other botanical evidence. For instance if a body is buried in a shallow grave in a wood, as murder victims often are, and is then not discovered for several years, the roots of the trees rapidly find the source of nutrients. If one then sections the oldest root entering the body, and counts the number of annual rings, then that is the number of years ago that person was buried, and pollen in the nose or on clothes might allow one to establish the time of year of the burial.

The anatomy of plant stems can also be valuable in forensic work. Most types of wood are can be identified from splinters caught in clothing and all the major plant fibres, such as cotton, linen, hemp, jute or sisal, can be identified under the microscope. Thus one might be able to tell if a suspect had broken a tropical hardwood door and carried away some loot in a hessian (jute) sack from splinters and fibres on the clothes.

Pollen of insect-pollinated flowers can be used to determine where some-one has been. This may help to place a suspect at a scene of crime. Pollen may be in the mud on the shoes or on clothing such as trousers. Most of this will come from insect-pollinated flowers and it tends to have a rougher surface than wind-borne pollen, quite often spiny, and is usually sticky rather than dry. Sometimes a particular combination of flowers will be unique to a site and the pollen may link the

suspect to that site and that site alone. Woodlands and parks in particular may have unusual combinations of trees, shrubs and herbs which are not replicated elsewhere. I have been involved with four cases in which rare plants or fungi have linked a suspect to a particular scene of crime. Pollen on clothes may be separated into the most recently arrived and that which was picked up some time ago. The most recent pollen can be sampled by using sticky tape on the surface of the clothing ('taping'), while the older pollen can be retrieved from deeper in the fabric by wringing the clothes out with warm water and detergent.

If a plant isn't flowering one can still pick up valuable forensic evidence just by brushing against its leaves or stems. Most plants have distinctive glandular or dry hairs (trichomes) which can stick to or get caught in clothing and can often be identified down to the species.

Some plants only release their pollen in the morning, e.g. plantain, and some only in the afternoon, e.g. vetch, allowing one to get an idea about when some-one has walked through a pasture, for instance. Not only does insect-carried pollen enable one to tell where some-one has been, it also enables one to tell where insects have been, and this is of considerable interest to beekeepers. Bees will often travel several miles if there is a good source of nectar such as oil-seed rape. I quite often look at honey for beekeepers to see where bees have been and to test for honey fraud. Fraud is of two main types, whether it is legally labelled as a unifloral (single named species) honey or whether it is from the country it purports to be on the label. For instance there is currently more manuka honey for sale in Britain than was produced in New Zealand! Fraud may also involve adulteration with, for example, corn syrup. Much of what I do is concerned with sorting out problems with honey that tastes unpleasant. More often than not the problem is ivy, which, with the Indian summers we tend to get these days, flowers earlier, and the bees stay out later. It imparts a rather bitter taste to the honey, which slowly disappears with storage. In one case a beekeeper suspected his bees had been on opium poppies which were being farmed around his hives. The opium poppy doesn't produce nectar, so only pollen-gatherers would visit it, but I found that a lot of this pollen had got into the honey (35% of all the pollen), so the question is whether this amount of pollen could impart a bitter taste to the honey. In any case he claimed that he couldn't sell it, but I suggested that perhaps he had got the wrong market!

The day is coming when pollen evidence may be linked to DNA evidence if the pollen can be retrieved before deterioration has begun. If the plant is out-breeding, each individual will have its own DNA fingerprint, much as each of us. One should be able to tell, therefore, not only which species some-one has brushed against, but which individual plant, and there are few better ways of placing some-one at a scene of crime.

In this report, those who came to my talk may notice that I have given much less detail about individual cases. This is because I am reluctant to give details in print about cases which might be easily recognised, as they might still be sub judice or at least they will concern individuals who are in prison or relatives of people who have died. I have therefore been forced to concentrate on the methods more than the results.

TOAD AID

Tony Rayner

I wish to pay tribute to a group of conservationists in our midst. Many belong to the Oxfordshire Amphibian and Reptile Group backed up by the Henley Toad Patrol. These volunteers are not fair weather types, for most of what they do is on dark wet evenings without the benefit of any shelter or creature comforts. It should be a matter of pride that at least two of those principally involved are R&DNHS members. For many years now this hardy group of about 25 souls have braved wet February and March evenings beside a busy road to save toads, plus a few frogs and newts from being flattened on the tarmac. Toads have their traditional breeding sites and will travel miles to reach their chosen pond. Oaken Wood near Hambleden houses such a site. If it happens that there is a road in the way, the amphibians will attempt to go straight across it.

Motorists manage to run down Badgers, Foxes and Deer quite often, so the poor slow-moving Toad has little chance even in good visibility. Fortunately John Sumpter, Alan Parfitt & Co. have plenty of experience and a few tricks up their sleeves in their battle to save the Oaken Wood toads. In the early 1980s tunnels were constructed under the road, but these soon became blocked and have scarcely been used. More successfully the amphibians have been ambushed in a line of traps just before reaching the road. It is from this point, as the light fades, that our heroic volunteers spring into action. The toads are scooped up and placed into buckets to be carried across the road. From 1999 all the toads caught in this way have been counted, and recorded as to whether male or female or in pairs. (*Males often hitch a lift on the back of their chosen female.*)

The figures are impressive, with toads totalling over 45,000 during the last six years alone. Had I



Start of excavation of the Ponds - November 5th 2012



The completed and filled ponds - November 1st 2013

not once witnessed a major breeding site in full flow, such numbers would be hard to accept. Yet in one exceptional evening in 2010, an amazing 2,780 toads were transported to safety at Oaken Wood. The annual figures suggest that the population is increasing, but recording gaps in earlier years suggest to me that it is more correct to say that there is no hint of any decline.

During February and March the toads are marching towards their breeding ground, but there is often more than one peak movement – perhaps when cold weather interrupts the flow. There has however been at least one notable exception to the normal pattern since 1999. This was in 2010 when all but 100 out of an incredible 10,500 were caught between the 17th and 26th of March. Also most interesting to note the effect of the exceptionally cold Spring of 2013 on our warty friends. That year the main movement didn't start until April 9th, a clear month later than usual.

Now thanks to the support of Froglife, a generous grant of £25,000 has been obtained

from Biffa for the construction of two new ponds.

In 2012/13 these were constructed and lined (*the local soils are too porous for natural ponds*) on the nearside of the road as the toads approach the site. This work, masterminded by Rod D'Ayala and crucially supported by the Culden Faw Estate, has been done in the hope that toads will use them for breeding without having to cross the road. If this fails to work in 2014, the group have contingency plans to make the new ponds more attractive.

If RDNHS had a gold award for an outstanding conservation achievement, the Oaken Wood gang together with their supporters, would have my vote.

RECORDER'S REPORT FOR LICHENS 2013

Fay Newbery

Neither the Earley Environmental Group nor the Reading District Natural History Society held lichen walks in 2013 although both groups have regularly done so in the past. However, lichen events have happened on the Whiteknights Campus of the University of Reading.

Students on the MSc Plant Diversity and MSc Species Identification and Survey Skills courses spent a day in February looking at epiphytic lichens on campus with a mixture of lectures, indoor practical work and outdoor exploration. They even got photographed 'worshipping' lichens on paving slabs!



Photo: Jonathan Mitchley

Guides from the 4th Woodley Lakeside Guide Unit visited the campus on 26th October to trial a new leaflet designed by OPAL in association with the Natural History Museum in London. This is a laminated guide to urban lichens. The Guides managed really well identifying lichens on trees and concrete posts with only one mis-identification. *Lecanora expallens* was identified as a *Lepraria* species. This was useful feedback for the leaflet's designers.

A small amount of survey work was carried out by Maxine Putnam and Fay Newbery on the campus during late October. This resulted in 15 new campus records including the discovery of *Lecanora confusa* and *Lecanora barkmaniana*. These two species are well distributed further south in Britain and in Bedfordshire and Hertfordshire but have been rarely been recorded in Surrey, Berkshire, Oxfordshire or North Hampshire. *Lecanora barkmaniana*, in particular, is a species that is difficult to recognise. It forms small, green, powdery patches easily mistaken for other things and separated by chemical tests which don't work very well! Both species appear to be present on multiple trees on campus.

Lichens have also featured on the Whiteknights Biodiversity Blog. The blogs can be accessed at <http://blogs.reading.ac.uk/whiteknightsbiodiversity/> using the lichen link in the categories list.

RECORDER'S REPORT FOR BOTANY

Renée Grayer

The first three months of 2013 saw an alternation of milder days and very cold periods with snow, the end of March being particularly cold. In April the weather did not improve a great deal with as a consequence that the flowering season of the plants started much later than usual. Finally, at the beginning of May, it became a little warmer, but in the remainder of the month and in June it was cool for the time of year. That all changed in July, when it became very hot and sunny, with 17 days seeing temperatures over 25°C. That meant that although plants came into flower very late, they set seed early. In August the rain returned and it was less warm. From September onwards sunny and wet days alternated, with as a feature a lot of wind and even severe gales, especially on 28th October and 23rd December. However, the weather was on the whole quite mild, especially in October, so that many plants were still flowering in November and December.

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

PTERIDOPHYTA (Ferns and Allies)

4. Ophioglossaceae

Ophioglossum vulgatum Adder's-tongue
16 Jun 13. RDNHS trip to Kings Barn Farm, Medmenham. SU812850 (SR)

5. Equisetaceae

Equisetum sylvaticum Wood Horsetail
28 Jul 13. RDNHS trip to Silchester Common. SU622620 (MK)

16. Blechnaceae

Blechnum spicant Hard-fern
23 Feb 13. RDNHS trip to Snelsmore Common, at side of gulley. SU463704 (JH)
21 Aug 13. RDNHS walk to Nettlebed Common. SU703875 (SH)

18. Dryopteridaceae

Polystichum setiferum Soft Shield-fern
24 Aug 13. Castle Grove, RDNHS trip to Hook End. SU682811 (JuC)

GYMNOSPERMAE (Conifers)

23. Cupressaceae

Juniperus communis Common Juniper
20 Feb 13. RDNHS trip to Aston Upthorpe Downs. SU548837 (MS)
7 Sep 13. RDNHS trip to Aston Rowant, SU726957 (MS)

ANGIOSPERMAE (Flowering Plants)

30. Papaveraceae

Papaver hybridum Rough Poppy
10 Aug 13. RDNHS trip to Oven Bottom. SU536837 (JH)

31. Berberidaceae

Berberis vulgaris Barberry
16 Jan 13. RDNHS walk to Sulham, in hedge. SU644743 (CB)

32. Ranunculaceae

Helleborus foetidus Stinking Hellebore
28 Mar 13. Peppard Common, at top of chalk pit. SU705821 (JW)

Myosurus minimus Mousetail
15 May 13. Dinton Pastures, South end of Mortimer's Meadows. Two larger and three smaller patches, about 1.5 m along the centre of a cow trail. SU77267191 (JoC)

Ranunculus parviflorus Small-flowered Buttercup
4 May 13. Whiteknights Campus nr Agriculture Building. 16 Plants, but unfortunately weedkillers and a few survivors were parked on by cars. SU741716 (FN)

Ranunculus penicillatus* subsp. *pseudo-fluitans Stream Water-crowfoot
17 Apr 13. River Lambourn, Bockhampton, RDNHS walk. SU334781 (RS)

Ranunculus trichophyllus Thread-leaved

water-crowfoot

1 Jun 13. RDNHS trip to Cockmarsh, wet areas around ponds. SU886868 (CB)

38. Saxifragaceae

Saxifraga granulata Meadow Saxifrage

8 Jun 13. Lough Down, Streatley, flowers past their best. SU588812 (JH)

Chrysosplenium oppositifolium Opposite-leaved Golden-saxifrage

9 Apr 13. Midgham. SU547677 (JL)

11 May 13. Bowdown Woods nr Greenham Common, along stream and path. SU5065 (FT)

42. Fabaceae

Galega officinalis Goat's-rue

6 Jul 13. Donai, in quantity beside the road. SU577680 (RF)

Hippocrepis comosa Horseshoe Vetch

8 Jun 13. Goring and Streatley Golf Course, outstanding display. SU583809 (JH)

Lathyrus nissolia Grass Vetchling

6 June 13. Reading, meadow along Shinfield Rd nr Blackboy Roundabout. Dozens of specimens in wide area. SU732691 (RG)

24 Jun 13. Theale, Hosehill Lake. SU647695 (RF)

Ornithopus perpusillus Bird's-foot

21 Aug 13. RDNHS walk to Nettlebed Common, Cricket Pitch. SU702872 (SH)

Trifolium striatum Knotted Clover

31 May 13. Sonning Common, Chiltern Edge School grounds, short grass on playing fields. SU701797 (JW)

44. Rosaceae

Filipendula vulgaris Dropwort

26 Jun 13. Aston Upthorpe Downs. SU544837 (JH)

28 Jun 13. The Holies, Streatley. SU593799 (JH)

10 Aug 13. RDNHS trip to Oven Bottom. SU536836 (JH)

Prunus padus Bird Cherry

15 May 13. Bucklebury Common. SY551691 (JL)

Sorbus torminalis Wild Service-tree

26 Apr 13. Copse next to Sulham Lane,

Tilehurst. SU656742 (JH)

28 Jul 13. Whiteknights, close to the Lake. SU736722 (RG)

8 Aug 13. Oak Wood, Maiden Erlegh Reserve. SU748710 (RG)

20 Nov 13. RDNHS walk to Sulham Woods, North side. SU645745 (JuC)

47. Ulmaceae

Ulmus glabra Wych Elm

20 Mar 13. RDNHS walk to Aston Rowant NNR, Beacon Hill. SU730973 (CA)

Ulmus procera English Elm

16 Jan 13. RDNHS walk to Sulham, Nunhide Lane. Surprisingly big specimen, flock of Goldfinches feeding on flowers. SU648735 (CB)

63. Violaceae

Viola palustris Marsh Violet

28 Jul 13. RDNHS trip to Silchester Common. SU622622 (MK)

65. Hypericaceae

Hypericum androsaemum Tutsan

6 Jul 13. Paices Wood C. P. SU585635 (JL)

Hypericum elodes Marsh St John's-wort

28 Jul 13. RDNHS trip to Silchester Common. SU622622 (MK)

Hypericum humifusum Trailing St John's-wort

6 Jul 13. Paices Wood C. P. SU585636 (JL)

76. Thymelaeaceae

Daphne laureola Spurge-laurel

16 Mar 13. Knowl Hill. SU814800 (JH)

30 Mar 13. RDNHS trip to Morgaston Wood, Hants. SU635568 (RG)

18 Sep 13. RDNHS walk in Warburg Reserve, Bix. SU716881 (FT)

81. Brassicaceae

Arabis hirsuta Hairy Rock-cress

31 May 13. The Holies, Streatley, at least four plants. SU593799 (JH)

Iberis amara Wild Candytuft

26 Jun 13. Aston Upthorpe Downs; still flowering 3 Nov 13. SU544837 (JH)

24 Nov 13. Sonning Eye Chalkpit nr A4155. More than 20 specimens, mostly in flower,

some in fruit. SU 747770 (RG>)

82. Santalaceae

Thesium humifusum Bastard Toadflax
7 Aug 13. The Holies, Streatley. SU594799 (JH)

Viscum album Mistletoe
16 Jan 13. RDNHS walk, Pang Valley above Pangbourne, on Hawthorns and Poplars. SU637758 (CB)

88. Caryophyllaceae

***Silene flos-cuculi* (*Lychnis flos-cuculi*)**
Ragged-Robin
2 Jun 13. Pangbourne Meadows, large patches. SU664769 (JL)

Spergularia rubra Sand Spurrey
17 Jul 13. RDNHS walk to Basildon Park. SU612777 (JL)

93. Montiaceae

Montia fontana Blinks
31 May 13. Sonning Common, Chiltern Edge School grounds, short grass on playing fields. SU701797 (JW)

99. Primulaceae

Anagallis tenella Bog Pimpernel
28 Jul 13. RDNHS trip to Silchester Common. SU622622 (MK)

102. Ericaceae

***Hypopithys monotropa* (*Monotropa hypopithys*)** Yellow Bird's-nest
17 Jul 13. Basildon Park. SU613776 (JL)

Rhododendron luteum Yellow Azalea
15 May 13. Bucklebury Common, two bushes. SU551691 (JL)

105. Gentianaceae

Gentianella amarella Autumn Gentian
7 Sep 13. RDNHS trip to Aston Rowant, SU726957 (MS)

Gentianella anglica Early Gentian
28 June 13. The Holies, Streatley, 7 cm tall, 3 internodes. SU594799 (JH)

Gentianella germanica Chiltern Gentian
7 Sep 13. RDNHS trip to Aston Rowant, SU726957 (MS)

18 Sep 13. RDNHS walk to Warburg Reserve, Bix. SU716881 (FT)

108. Convolvulaceae

Cuscuta epithymum Dodder
28 Jul 13. RDNHS trip to Silchester Common. SU622620 (MK)

109. Solanaceae

Atropa belladonna Deadly Nightshade
26 Jun 13. Aston Upthorpe Downs, SU547840 (JH)

113. Veronicaceae

Linaria repens Pale Toadflax
4 Jul 13. RDNHS walk to Lower Basildon, west of Hook End Lane. SU595788 (JH)

Veronica agrestis Green Field-speedwell
11 Aug 13. Harris Garden, Univ. of Reading; weed in Red Border. SU737713 (RG)

Veronica catenata Pink Water-speedwell
1 Jun 13. RDNHS trip to Cockmarsh, wet area around pond. SU886868 (RG)

Veronica scutellata Marsh Speedwell
1 Jun 13. RDNHS trip to Cockmarsh, wet area around pond. SU886868 (RG)

118. Lamiaceae

Lamium hybridum Cut-leaved Dead-nettle
7 Dec 13. RDNHS trip to Moor Green Lakes and Blackwater Valley (nr Finchampstead); path along river Blackwater, in flower. SU800623 (LM)

Scutellaria minor Lesser Skullcap
28 Jul 13. RDNHS trip to Silchester Common. SU622622 (MK)

121. Orobanchaceae

Lathraea squamaria Toothwort
1 Jun 13. Dysons Wood Lane, two large patches under hazel. SU706779 (JW)

126. Campanulaceae

Campanula glomerata Clustered Bellflower
4 Jul 13. RDNHS walk to Lower Basildon, East of Hook End Lane. SU599785 (JH)
10 Aug 13. RDNHS trip to Oven Bottom. SU536836 (JH)

3 Nov 13. Aston Upthorpe Downs, still in flower so late in the year. SU544837 (JH)

127. Menyanthaceae

Nymphoides peltata Fringed Water-lily
31 Aug 13. Hosehill Local Nature Reserve.
SU647696 (JH)

128. Asteraceae

Anaphalis margaritacea Pearly Everlasting
21 Sep 13. RDNHS trip to Olddean
Common, two big patches. SU886631 (RG)

Anthemis cotula Stinking Chamomile
10 Aug 13. RDNHS trip to Oven Bottom.
SU536837 (JH)

Filago pyramidata Broad-leaved Cudweed
24 Nov 13. Sonning Eye Chalkpit near the
A4155, 20 specimens, mostly juvenile, some
senescent. SU747770 (GT&RG)

Petasites hybridus Butterbur
1 May 13. RDNHS walk to Fobney Lock,
Reading; still in flower. SU706710 (JL)

Serratula tinctoria Saw-wort
10 Aug 13. RDNHS trip to Oven Bottom.
SU536836 (JH)

Solidago virgaurea Goldenrod
7 Jul 13. Clayfield Copse. SU726770 (JL)

Tragopogon porrifolius Salsify
20 Jun 13. Hungerford Marsh, one stem.
SU332688 (RF)

132. Valerianaceae

Valerianella carinata Keeled-fruited
Cornsalad
16 May 13. Wilderness Road, weed in
garden of BP petrol station. SU743719 (RG)

158. Orchidaceae

Anacamptis pyramidalis Pyramidal Orchid
4 Jul 13. RDNHS walk to Lower Basildon,
west of Hook End Lane; 3 flowering spikes.
SU595786 (JH)
4 Jul 13. RDNHS walk to Lower Basildon,
east of Hook End Lane, more than 100
flowering spikes. SU599785 (JH)
4 Jul 13. RDNHS walk to Lower Basildon,
north side of A329. SU594792 (JH)

Cephalanthera damasonium White

Helleborine

June 13. Whiteknights Campus, under lime
tree beside the library. SU734717 (FN)
16 June 13. RDNHS trip to Kings Barn Farm,
Medmenham. SU812850 (SR)
19 Jun 13. RDNHS walk to Homefield Wood
BBOWT reserve nr Marlow. SU815870 (CA)

Coeloglossum viride Frog Orchid
10 Aug 13. RDNHS trip to Oven Bottom.
SU538835 (JH)

Dactylorhiza incarnata Early Marsh-orchid
Jun 13. Wild garden of Tony Rayner (not
planted), 66 flowering spikes. SU592868 (TR)

D. praetermissa Southern Marsh-orchid
7 Jul 13. Clayfield Copse. SU726770 (JL)

Epipactis purpurata Violet Helleborine
24 Aug 13. RDNHS trip to Hook End, Castle
Grove. About 50 flower spikes! SU682811
(JuC)
24 Aug 13. RDNHS trip to Hook End, Park
Lane. About 5 flower spikes. SU674809 (JuC)

Gymnadenia conopsea Fragrant-orchid
19 Jun 13. RDNHS walk to Homefield Wood
BBOWT reserve nr Marlow. SU814868 (CA)

Neottia nidus-avis Bird's-nest Orchid
14 Jun 13. Gutteridge's Wood, under beech
on valley side, 8 spikes. SU668791 (JW)
15 Jun 13. Oveys Wood near big chalkpit, 10
spikes. SU702832 (JW)
29 Sep 13. RDNHS trip to Harpsden Wood
nr Henley, Woodland Road. SU761807
(RG&RS)

Ophrys apifera Bee Orchid
6 Jul 13. Paices Wood C. P. SU584637 (JL)
7 Jul 13. Clayfield Copse. SU726770 (JL)
July 13. Wild garden of Tony Rayner (not
planted), at least 24 flowering spikes.
SU592868 (TR)

Orchis mascula Early-purple Orchid
6 May 13. Moor Copse, patch with 29 spikes;
more than 80 spikes on 26 May 13.
SU63957386 (JL)
11 May 13. RDNHS trip to Bowdown Woods
nr Greenham Common. SU502658 (FT)
14 May 13. Rushall's Farm in Bradfield, 6
flowering on either side of the woodland path.
SU58417265 (RB)
14 Jun 13. Gutteridge's Wood, 4 in flower.
SU668791 (JW)

161. Amaryllidaceae

Narcissus pseudonarcissus Wild Daffodil

27 Mar 13. Withy Copse, under mature beech on the northern margin. SU682807 (JW)

28 Mar 13. NE edge of Bottom Wood, one clump. Under hazel and beech. SU705821 (JW)

30 Mar 13. The Chase, Woolton Hill. SU445628 (JH)

162. Asparagaceae

Convallaria majalis Lily-of-the-valley

28 Jul 13. RDNHS trip to Silchester Common. SU622620 (MK)

Ruscus aculeatus Butcher's-broom

20 Nov 13. RDNHS walk to Sulham Woods, south side. SU650739 (JuC)

168. Juncaceae

Luzula forsteri Southern Wood-rush

26 Apr 13. Barefoots Copse, Tilehurst. SU656744 (JH)

169. Cyperaceae

***Carex leporina* (*C. ovalis*)** Oval Sedge

24 Jun 13. Burnt Platt on track side. SU690832 (JW)

Carex viridula* subsp. *oedocarpa Common

Yellow-sedge

21 Aug 13. RDNHS trip to Nettlebed Common. SU703875 (SH)

Isolepis setacea Bristle Club-rush

28 Jul 13. RDNHS trip to Silchester Common. SU622622 (MK)

CONTRIBUTORS

Thanks are due to the following members and friends for their submissions:

(CA) Chris Ash, (CB) Chris Bucke, (FN) Fay Newbery, (FT) Fred Taylor, (GT) Geoff Toone, (JoC) Jon Cole, (JuC) Julia Cooper, (JH) Jan Haseler, (JL) John Lerpiniere, (JW) Janet and Jerry Welsh, (LM) Lynne Matthews, (MK) Michael Keith-Lucas, (MS) Martin Sell, (RB) Ricki Bull, (RF) Roger Frankum, (RG) Renée Grayer, (RS) Rob Stallard, (SH) Sheelagh Hill, (SR) Sally Rankin, (TR) Tony Rayner.

RECORDERS REPORT FOR MYCOLOGY

Gordon Crutchfield

After the very wet conditions throughout 2012, 2013 was a more normal year – probably a bit drier than average in most months. This gave us a more typical fungus season. Things were probably a bit slow to get going in September, but with October and November being virtually frost-free, the season continued into December again.

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

Boletales	<i>Russula nobilis</i> 31 Oct 13, Lambridge Wood Bix (GC).
Boletaceae	<i>Russula nitida</i> 11 Oct 13, Greenham Common (TVFG).
<i>Boletus edulis</i> 6 Oct 13, Fence Wood Bucklebury (GC).	<i>Russula sardonia</i> 6 Oct 13, Fence Wood Bucklebury (GC).
<i>Boletus appendiculatus</i> 20 Oct 13, California Country Park (GC).	<i>Lactarius pubescens</i> 11 Oct 13, Greenham Common (TVFG). & 11 Oct 13, Bowdown Wood, Greenham (TVFG)
<i>Boletus pulverulentus</i> 31 Oct 13, Lambridge Wood Bix (GC).	<i>Lactarius torminosus</i> 20 Oct 13, California Country Park (GC).
<i>Boletus erythropus</i> 6 Oct 13, Fence Wood Bucklebury (GC) & 20 Oct 13, California Country Park (GC).	<i>Lactarius chrysorrheus</i> 20 Oct 13, California Country Park (GC).
<i>Xerocomus badius</i> 6 Oct 13, Fence Wood Bucklebury (GC).	<i>Lactarius acerrimus</i> 29 Sep 13, Harpsden Woods (RDNHS).
<i>Xerocomus porosporus</i> 6 Oct 13, Fence Wood Bucklebury (GC).	<i>Lactarius acris</i> 26 Oct 13, Warburg Reserve, Bix (FSO)
<i>Suillus luteus</i> 20 Oct 13, California Country Park (GC).	
<i>Suillus bovinus</i> 20 Oct 13, California Country Park (GC).	Polyporales
<i>Suillus grevillei</i> 6 Oct 13, Fence Wood Bucklebury (GC).	Polyporaceae
	<i>Panus conchatus</i> 28 Oct 13, Braziers Common Wood, Checkendon (GC).
Russulales	
Russulaceae	Agaricales
<i>Russula betularum</i> 20 Oct 13, California Country Park (GC).	Hygrophoraceae
<i>Russula atropurpurea</i> 20 Oct 13, California Country Park (GC).	<i>Hygrocybe nitrata</i> 26 Oct 13, Warburg reserve, Bix (FSO).
<i>Russula vesca</i> 20 Oct 13, California Country Park (GC) & 31 Oct 13, Lambridge Wood Bix (GC).	Agaricales
<i>Russula caerulea</i> 20 Oct 13, California Country Park (GC).	Tricholomataceae
	<i>Clitocybe odora</i> 29 Sep 13, Harpsden Woods (RDNHS).

Clitocybe fragrans 1 Oct 13, Mary's Wood,
Winterbourne (TVFG).

Clitocybe houghtonii 1 Oct 13, Mary's Wood,
Winterbourne (TVFG) & 31 Oct 13,
Lambridge Wood Bix (GC).

Collybia kuehneriana 1 Oct 13, Mary's Wood,
Winterbourne (TVFG).

Lepista sordida 29 Sep 13, Harpsden Woods
(RDNHS).

Tricholomopsis rutilans 1 Oct 13, Mary's
Wood, Winterbourne (TVFG).

Tricholoma lascivum 26 Oct 13, Warburg
Reserve, Bix (FSO)

Tricholoma sculpturatum 26 Oct 13, Warburg
Reserve, Bix (FSO)

Agaricales

Lyophyllaceae

Lyophyllum decastes 11 Oct 13, Greenham
Common (TVFG).

Tephroclybe rancida 26 Oct 13, Warburg
Reserve, Bix (FSO).

Agaricales

Marasmiaceae

Marasmius wynnei 1 Oct 13, Mary's Wood,
Winterbourne (TVFG) & 15 Oct 13, The
Vyne, Sherborne St. John (GC).

Agaricales

Entolomataceae

Rhodocybe truncate 11 Oct 13, Greenham
Common (TVFG).

Agaricales

Pluteaceae

Pluteus luteovirens 26 Oct 13, Warburg
Reserve, Bix (FSO).

Agaricales

Cortinariaceae

Cortinarius triumphans 1 Oct 13, Mary's
Wood, Winterbourne (TVFG).

Cortinarius infractus 26 Oct 13, Warburg
Reserve, Bix (FSO).

Cortinarius calochrous 29 Sep 13, Harpsden
Woods (RDNHS).

Agaricales

Inocybaceae

Inocybe rimosa 20 Oct 13, California Country
Park (GC).

Inocybe mixtilis 20 Oct 13, California Country
Park (GC).

Inocybe asterospora 1 Oct 13, Mary's Wood,
Winterbourne (TVFG).

Inocybe maculate 1 Oct 13, Mary's Wood,
Winterbourne (TVFG).

Inocybe cookie 8 Oct 13, Lambridge Wood
Bix (GC).

Agaricales

Strophariaceae

Agrocybe rivulosa 11 Oct 13, Greenham
Common (TVFG).

Gymnopilus dilepis 11 Oct 13, Greenham
Common (TVFG).

Pholiota squarrosa 1 Oct 13, Mary's Wood,
Winterbourne (TVFG).

Agaricales

Bolbitiaceae

Conocybe Arrhenius 15 Oct 13, The Vyne,
Sherborne St. John (GC).

Agaricales

Chalkhouse Green (GC)

Psathyrellaceae

Psathyrella bipellis 1 Oct 13, Mary's Wood, Winterbourne (TVFG).

Cystolepiota

Echinoderma calciphila 26 Oct 13, Warburg Reserve, Bix (FSO).

Agaricales

Agaricaceae

Coprinus picaceus 29 Sep 13, Harpsden Woods (RDNHS).

Agaricus semotus 1 Oct 13, Mary's Wood, Winterbourne (TVFG) & 8 Oct 13, Lambridge Wood Bix (GC).

Agaricus moelleri 1 Oct 13, Mary's Wood, Winterbourne (TVFG).

Lepiota ventriosospora 24 Nov 13, Lackmore Wood, Woodcote (TVFG)

Lepiota leucothites 12 Oct 13, AWE Perimeter Road, Burghfield (GC)

Macrolepiota mastoidea 6 Oct 13, Fence Wood Bucklebury, (GC)

Battarrea phalloides 29 Aug 13, Roadside

Contributors:

Many thanks to the following for their help

RDNHS Reading and District Natural History Society

TVFG Thames Valley Fungus Group

FSO Fungus Survey of Oxfordshire

Agaricales

Amanitaceae

Amanita phalloides 29 Sep 13, Harpsden Woods (RDNHS). & 1 Oct 13, Mary's Wood, Winterbourne (TVFG) & 11 Oct 13, Bowdown Wood, Greenham (TVFG)

Gomphales

Clavariadelphaceae

Clavariadelphus pistillaris 26 Oct 13, Warburg Reserve, Bix (FSO).

RECORDER'S REPORT FOR LEPIDOPTERA 2013

Norman Hall

2013 was a mixed year for lepidoptera and lepidopterists. The first few months were colder than usual - so cold that the dates of first appearance for many species were about a fortnight or more later than normal, and numbers were low. Spring was, of course, late for everything: normally, the flowering Rosaceous trees can be used as a sort of floral clock marking the advance of Spring, and in mild years the sequence can start in late January, and is usually complete in late April. In 2013, however, the sequence seemed to start in late April after which everything flowered in rapid succession. Despite the late Spring the weather improved and emergence dates eventually moved back to what was expected. We had the best spell of warm sunny weather for several years - a proper Summer for a change, albeit a short one. Numbers were good, demonstrating Nature's capacity to 'bounce back' given the opportunity. In the Autumn, there was a long succession of mild cloudy and almost windless nights, but disappointingly there were few migrants, though The Gem, The Vestal, The Four-spotted Footman and *Palpita vitrealis* all turned up. The most notable record of the year was of Oblique Striped (a geometrid moth) at Red Cow Cottage, Cholsey. This is a moth I have never seen anywhere, even in France or Spain, and there are no recent records for Vice County 22 (Historical Berkshire). The most surprising record of my own was of Saltern Ear at Hosehill Lake on the RDNHS mothing evening.

A systematic list of this year's records follows. It is, as in the past, in the order of the numbers assigned by Bradley & Fletcher in 1979 - "The Bradley Numbers". However, I have used the scientific names (including the family names) in 'Checklist of the Lepidoptera of the British Isles' by Agassiz, D.J.L.; Beavan, S.D.; Heckford, R.J. (2013). For future reference I have added new numbers assigned by Agassiz et al. for each species in square brackets, e.g. Leopard Moth is [50.002] - the second moth in the fiftieth family.

As in past reports, choice of records for inclusion has been based entirely on the statuses of the moths (as given in 'The Field Guide to the Moths of Great Britain and Ireland' by Waring and Townsend for macromoths; and as given in 'A Review of the Status of Microlepidoptera in Britain' by Tony Davis, January 2012, for micromoths). Where the status is 'common' a record has been included only if it is interesting in the local context. Such records are often prefixed with a phrase such as "High count", or followed by a comment from the observer. These are rarely the *only* records for common species. Where the status is not 'common', all records have usually been included automatically.

For common butterflies, the date range is given first for Red Cow Cottage, Cholsey which is surveyed so regularly that the annual data could be used for phenological analysis. If there are records later or earlier than the Red Cow records from other sites the latest or earliest records follow the Red Cow data appropriately prefixed.

Abbreviations:

(AR) Tony Rayner, (JH) Jan Haseler, (JL) John Lerpiniere, (JN) John Notton, (RB) Ricki Bull.
(RDNHS) denotes records from Reading & District Natural History Society field meetings.
(LLP) denotes records from Living Landscape Project mothing nights in West Berkshire, in which traps were run by Roger Stace, Rob Payne, Roy Dobson, Paul Black and myself (NMH). I acted as recorder and identifier.

ADELIDAE

0152 *Cauchas rufimitrella* [07.010] Common
20-May-13, Westwood Road, Tilehurst
SU666742, first record since 2008 (JH)
A micro-moth with long antennae often seen
resting on flowers of Lady's Smock in the
Spring (NMH)

COSSIDAE

The Leopard Moth and the next species, the
Festoon in LIMACODIDAE, are sometimes
considered as 'honorary' macromoths

0161 *Zeuzera pyrina* Leopard Moth [50.002]
Common
5 localities, including Crawshay Drive,
Emmer Green, first in garden for many years
(JN)

LIMACODIDAE

0173 *Apoda limacodes* The Festoon [53.001]
NB
from 13-Jul-13 to 18-Jul-13, Red Cow
SU592868 (AR)

TINEIDAE

Clothes moths and related species.

0196 *Morophaga choragella* [12.010] Local
03-Jul-13, Baynes Wood SU511651 (LLP)

0220 *Nemapogon clematella* [12.021] Local
09-Jul-13, 1 at actinic, Crawshay Drive,
Emmer Green SU718772, new for garden
(JN)

0230 *Monopis crocicapitella* [12.039] Local
29-Sep-13, Harcourt Drive (Earley)
SU735709 (NMH)

0240 *Tinea pellionella* Case-bearing Clothes
Moth [12.027] Local
12-Apr-13, Westwood Road, Tilehurst
SU666742, new for house (JH). The larvae
live in whitish silken tubes up to 10mm long
which they carry from one feeding site to
another. As they feed on natural fibres and
not synthetic fibres, they are in general
becoming less common these days, but they
are said to be making a come-back due to
the warm winters. In my house, they often
feed at the cut edges of supposedly moth-
proofed carpets. When fully grown, some of
them climbed the walls, attached their cases
to the ceiling and pupated within. This
enabled me to track down the source to the

carpet below(NMH)

GRACILLARIIDAE

0290 *Caloptilia semifascia* [15.012] Local
29-Sep-13, 2, Harcourt Drive (Earley)
SU735709 (NMH)

ARGYRESTHIIDAE

0410 *Argyresthia brockeella* [20.011]
Common
29-Jun-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

YPONOMEUTIDAE

0435 *Zelleria hepariella* [16.010] Local
29-Sep-13, Harcourt Drive (Earley)
SU735709 (NMH)

ROESLERSTAMMIIDAE

0447 *Roeslerstammia erxlebelli* [13.002]
Local
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)
20-Aug-13, Wildmoor Heath SU843628
(NMH)

YPSOLOPHIDAE

0456 *Ypsolopha horridella* [17.006]
Nationally Scarce B
15-Aug-13, Thatcham Marsh SU502666
(LLP)

PLUTELLIDAE

0464 *Plutella xylostella* Diamond-back Moth
[18.001] Migrant
from 13-Jul-13 to 17-Oct-13, 6 localities
(NMH)

GLYPHIPTERIGIDAE

0473 *Acrolepiopsis assectella* Leek Moth
[19.011] Local
12-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)

EPERMENIIDAE

0481 *Epermenia falciformis* [47.006] Local
15-Aug-13, Thatcham Marsh SU502666
(LLP)

DEPRESSARIIDAE

0667 *Semioscopis steinkellneriana* [32.002] Local
23-Apr-13, Greenham Common (616)
SU499652 (LLP)

0695 *Agonopterix alstromeriana* [32.031] Common
07-May-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

GELECHIIDAE

0728 *Monochroa cytisella* [35.065] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

0756 *Parachronistis albiceps* [35.161] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

0809 *Pexicopia malvella* Hollyhock Seed
Moth [35.032] Nationally Scarce B
24-Jun-13 to 1-Jul-13, 3 in all, Crawshay
Drive, Emmer Green SU718772, second for
garden. Identification confirmed by dissection
(JN)

0856 *Anarsia spartiella* [35.020] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

TORTRICIDAE

This family includes many moths which are
camouflaged to resemble bird droppings
when at rest (NMH).

0979 *Archips crataegana* Brown Oak Tortrix
[49.014] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1013 *Olindia schumacherana* [49.001] Local
03-Jul-13, Baynes Wood SU511651 (LLP)

1061 *Acleris literana* [49.087] Local
29-Sep-13, Harcourt Drive (Earley)
SU735709 (NMH)
03-Oct-13, Bowdown Woods SU501656
(LLP)

1064 *Celypha rosaceana* [49.162] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1068 *Celypha rivulana* [49.167] Local
16-Jul-13, Red Cow SU592868 (AR)

1079 *Piniphila bifasciana* [49.180] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1135 *Epinotia demarniana* [49.243] Local
03-Jul-13, Baynes Wood SU511651 (LLP)

1167 *Gypsonoma aceriana* [49.283] Local
15-Aug-13, Thatcham Marsh SU502666
(LLP)

1171 *Gypsonoma minutana* [49.278]
Nationally Scarce B
01-Aug-13, Manor Farm Bonds Gully
SU537650 (LLP)

1210 *Rhyacionia buoliana* Pine Shoot Moth
[49.305] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)
20-Aug-13, 15, Wildmoor Heath SU843628
(NMH)

1211 *Rhyacionia pinicolana* [49.306]
Common
from 13-Jul-13 to 01-Aug-13, 3 localities
including Westwood Road, Tilehurst (new for
garden, JH)

1216 *Enarmonia formosana* Cherry-bark
Moth [49.200] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

CRAMBIDAE

This family and the next, the PYRALIDAE,
have usually been considered in the past as a
single large family PYRALIDAE - and many
people will probably still consider them as
one family whatever the most recent checklist
says. As a whole, they includes the Grass
Moths and many species of economic
importance, being pests of stored food and
animal products. Most people in the UK think
of them as micro-moths, but many are quite
large – for example the Mother-of-Pearl Moth,
which is common wherever there are nettles.
The Natural History Museum collections are
divided into Microlepidoptera,
Macrolepidoptera and Pyralidae as though
the Pyralidae are neither one thing nor the
other.

1292 *Calamotropha paludella* [63.079] Local
18-Jul-13 & 15-Aug-13, Thatcham Marsh
SU502666 (LLP)

1303 *Agriphila selasella* [63.092] Local
01-Aug-13, Manor Farm Stream SU544656

(LLP)

1321 *Thisanotia chrysonuchella* [63.107] Nationally Scarce B
08-Jun-13, 6, Lardon Chase, Streatley SU588809 (JH)

1329 *Donacaula forficella* [63.121] Local
18-Jul-13 & 15-Aug-13, 2, Thatcham Marsh SU502666 (LLP)

1330 *Donacaula mucronella* [63.122] Nationally Scarce B
18-Jun-13, & 18-Jul-13, Thatcham Marsh SU502666 (LLP)

1334A *Scoparia basistrigalis* [63.063] Local
11-Jul-13, Harcourt Drive (Earley) SU735709 (NMH)
03-Aug-13, Hosehill Lake SU651698 (RDNHS)

1336 *Eudonia pallida* [63.075] Local
18-Jun-13, Thatcham Marsh SU502666 (LLP)
29-Jun-13, Westwood Road, Tilehurst SU666742 (JH)

1350 *Nymphula nitidulata* Beautiful China-mark [63.118] Local
24-Jul-13, 1 at actinic, Crawshay Drive, Emmer Green SU718772, new for garden (JN)
15-Aug-13, 2, Thatcham Marsh SU502666 (LLP)

1362 *Pyrausta purpuralis* [63.007] Common
18-Jul-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

1366 *Pyrausta nigrata* [63.009] Local
20-May-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

1375 *Ostrinia nubilalis* European Corn-borer [63.028] Local
01-Aug-13, Red Cow SU592868 (AR)

1380 *Anania perlucidalis* [63.020] Common
29-Jun-13, Westwood Road, Tilehurst SU666742, new for garden (JH)
13-Jul-13, Snelsmore Common SU461711, although supposedly common, I had not seen it before (NMH)

1385 *Anania crocealis* [63.022] Local
13-Jul-13, Snelsmore Common SU461711 (NMH)

1395 *Udea ferrugalis* Rusty-dot Pearl

[63.031] Migrant
08-Aug-13, 2, Westwood Road, Tilehurst SU666742 (JH)
20-Aug-13, Wildmoor Heath SU843628 (NMH)

1396 *Mecyna flavalis* [63.039] pRDB3
18-Jul-13, Thatcham Marsh SU502666 (LLP)
07-Aug-13, 6, The Holies SU594798 (JH)
Its occurrence at Thatcham Marsh was totally unexpected as it is normally only found on high quality downland (NMH)

1398 *Nomophila noctuella* Rush Veneer [63.052] Migrant
7 individuals between 21 Sep and 31 Oct, at Westwood Road, Tilehurst (JH), Harcourt Drive (Earley) (NMH), Bowdown Woods (LLP), Greenham Common (Brackenhurst Heath) (LLP) & 'Butterfly Bank' Hosehill SU648694 (JL)

1408 *Palpita vitrealis* [63.048] Migrant
01-Aug-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

PYRALIDAE

1421 *Aglossa pinguinalis* Large Tabby [62.074] Local
18-Jul-13, Westwood Road, Tilehurst SU666742, second for garden, last recorded 2005 (JH)

1437 *Acrobasis consociella* [62.038] Local
13-Jul-13, Snelsmore Common SU461711 (NMH)

1440 *Acrobasis marmorea* [62.037] Local
24-Jul-13, Red Cow SU592868 (AR)

1441 *Oncocera semirubella* [62.021] Nationally Scarce B
23-Jul-13, 2, Lardon Chase, Streatley SU588809 (RB)
01-Aug-13, 3, Manor Farm Bonds Gulley SU537650 (LLP)
17-Oct-13, Greenham Common (Brackenhurst Heath) SU487642 (LLP)
A species that seems to be on the increase (NMH)

1442 *Pempelia palumbella* [62.023] Local
13-Jul-13, Snelsmore Common SU461711 (NMH)

1465 *Nephopterix angustella* [62.032] Local
09-Jul-13, 1 at actinic, Crawshay Drive, Emmer Green SU718772, second for garden

- after many years (JN)

PTEROPHORIDAE (Plume moths)

1512 *Merrifieldia baliodactylus* Dingy White Plume [45.034] Nationally Scarce B
13-Jul-13, Snelsmore Common SU461711 (NMH)

HESPERIIDAE (Skipper Butterflies)

1526 *Thymelicus sylvestris* Small Skipper [57.006]
Red Cow, from 6-Jul-13 to 13-Aug-13, SU592868 (AR)
Earliest sighting: 05-Jul-13, Ufton Nervet, restored gravel pit SU638666 (JH).
Latest sighting: 25-Aug-13, 2, Decoy Heath SU613638 (JH)

1527 *Thymelicus lineola* Essex Skipper [57.005]
Red Cow, from 16-Jul-13 to 9-Aug-13, SU592868 (AR)
Earliest sighting: 15-Jul-13, Whitehill Wood SU3272 (JL)
Latest sighting: 30-Aug-13, Mortimer, Hundred Acre Piece SU639651 (JH)

1531 *Ochlodes sylvanus* Large Skipper [57.009]
Red Cow, from 24-Jun-13 to 23-Jul-13, SU592868 (AR)
Earliest sighting: 21-Jun-13, Fobney SU7070 (JL)
Latest sighting: 24-Jul-13, Aston Upthorpe Downs SU545837 (JH)

1532 *Erynnis tages* Dingy Skipper [57.001]
Red Cow, 01-Jun-13, SU592868 (AR)
Earliest sighting: 07-May-13, Paices Wood SU5863 (JL)
Latest sighting: 26-Jun-13, 3, Aston Upthorpe Downs SU545837 (JH)

1534 *Pyrgus malvae* Grizzled Skipper [57.002]
Earliest sighting: 06-May-13, Aston Upthorpe, northern bank SU548841 (JH)
Latest sighting: 14-Jun-13, 3, Ufton Nervet, restored gravel pit SU638666 (JH)

PIERIDAE (White Butterflies)

1545 *Colias croceus* Clouded Yellow [58.010]
Red Cow, 27-Aug-13 & 31-Aug-13, SU592868 (AR)
Earliest sighting: 01-Aug-13, Farley Hill, Castle Hill SU751656 (JH)

Latest sighting 05-Sep-13, Sheepdrove SU3682 (JL)

1546 *Gonepteryx rhamni* The Brimstone [58.013]

Red Cow, from 05-Mar-13 to 16-Oct-13, SU592868 (AR)

Elsewhere, 20 records between 05-Mar-13, Harris Garden SU738712 (JH) & 02-Jun-13, 2, Pangbourne SU6476 (JL), then 10 records between 23-Jul-13, Lardon Chase, Streatley SU588809 (RB) & 04-Oct-13, garden of Westwood Road, Tilehurst SU666742 (JH)
High count :16 on 24-Jul-13, Aston Upthorpe Downs SU545837 (JH)

1549 *Pieris brassicae* Large White [58.006]
Red Cow, from 04-May-13 to 16-Oct-13, SU592868 (AR)

1550 *Pieris rapae* Small White [58.007]
Red Cow, from 17-Apr-13 to 25-Oct-13, SU592868 (AR)
Earliest sighting: 05-Mar-13, Tilehurst SU665743 (JL)
High count: 76 on 24-Jul-13, Aston Upthorpe Downs SU545837 (JH)

1551 *Pieris napi* Green-veined White [58.008]
Red Cow, from 05 May-13 to 22 Sep-13, SU592868 (AR)
Earliest sighting: 04-May-13, Tilehurst SU665743 (JL)
High Count: 34 on 24-Jul-13, Aston Upthorpe Downs SU545837 (JH)

1553 *Anthocharis cardamines* Orange-tip [58.003]
Red Cow, from 25-Apr-13 to 5-Jun-13, SU592868 (AR)
Earliest sighting: 24-Apr-13, 2, Moor Copse, Park Wood SE, Compartment 15 SU637739 (JH)
Latest sighting: 09-Jun-13, Tyle Mill, footpath westwards SU627686 (JH)

LYCAENIDAE (Blue Butterflies, etc)

1555 *Callophrys rubi* Green Hairstreak [61.005]
Earliest sighting: 06-May-13, Aston Upthorpe, northern bank SU548841 (JH)
Latest sighting: 27-May-13, Mortimer, Hundred Acre Piece SU639651 (JH)

1557 *Favonius quercus* Purple Hairstreak [61.004]
Only 3 records: 15-Jul-13, Lambourn

Woodlands SU3276 (JL)
18-Jul-13, 2, Mortimer, Hundred Acre Piece
SU639651 (JH)
11-Aug-13, Sulham SU6474 (JL)

1561 *Lycaena phlaeas* Small Copper
[61.001]
Red Cow, from 5-May-13 to 4-Nov-13,
SU592868 (AR)

1569 *Cupido minimus* Small Blue [61.010]
Only 3 records, all from JL: 03-Jun-13, 4,
Sheepdrove SU358819 (JL)
12-Aug-13, Watts Bank SU3376 (JL)
12-Aug-13, 3, Sheepdrove SU3581 (JL)

1571 *Plebejus argus* Silver-studded Blue
[61.014]
Only 4 records: 04-Jul-13, Broadmoor Bottom
SU856628, male (JL)
04-Jul-13, 9, Wildmoor SU843628 (JL)
13-Jul-13, 4m,3f, Broadmoor Bottom
SU856628 (JL)
15-Jul-13, 4, Wildmoor Heath SU843628 (RB)

1572 *Aricia agestis* Brown Argus [61.015]
Red Cow, from 31-May-13 to 17-Oct-13,
SU592868 (AR)

1574 *Polyommatus icarus* Common Blue
[61.018]
Red Cow, from 1-Jun-13 to 28-Sep-13,
SU592868 (AR)
Earliest sighting: 31-May-13, 8, The Holies,
Streatley SU594798 (JH)
Latest sighting: 20-Sep-13, Lardon Chase,
Streatley SU588809 (JH)
High count: 62 on 23-Jul-13, Lardon Chase,
Streatley SU588809 (RB)
An interesting record of a butterfly in a moth
trap: 02-Aug-13, 1 male at actinic, Crawshay
Drive, Emmer Green SU718772 (JN)

1575 *Polyommatus coridon* Chalk Hill Blue
[61.020]
Red Cow, 5-Aug-13 & 6-Aug-13, SU592868
(AR)
Earliest sighting and high count: 274 on 23-
Jul-13, Lardon Chase, Streatley SU588809
(RB)
Latest sighting: 04-Sep-13, 10, Aston
Upthorpe Downs SU545837 (JH)

1576 *Polyommatus bellargus* Adonis Blue
[61.019]
Earliest sighting: 08-Jun-13, 6, Lardon Chase,
Streatley SU588809 (JH)
28-Aug-13, 13, The Holies, Streatley
SU594798 (JH)

Latest sighting: 05-Sep-13, 19, Lardon
Chase, Streatley SU588809 (RB)

1580 *Celastrina argiolus* Holly Blue [61.012]
Red Cow, from 25-Apr-13 to 11-Aug-13,
SU592868 (AR)
Earliest sighting: 24-Apr-13, Tilehurst, garden
of Westwood Road, Tilehurst, SU666742 (JH)
Latest sighting: 05-Sep-13, 2, Lardon Chase,
Streatley SU588809 (RB)

RIODINIDAE (Duke of Burgundy)

1582 *Hamearis lucina* Duke of Burgundy
Fritillary [60.001]
25-May-13, 2, Cleeve Hill (strawberry field)
SU333762 (JL)
25-May-13, White Shute SU330765 (JL)
03-Jun-13, 5, Cleeve Hill SU333762 (JL)

NYMPHALIDAE (Vanessids, Fritillaries,
Browns etc)
The Browns were previously put in a separate
family SATYRIDAE

1584 *Limenitis camilla* White Admiral
[59.021]
10-Jul-13, Rushall Farm SU577730 (JL)
25-Jul-13, Riseley, Bull Lane SU717630, only
sighting (JH)
10-Aug-13, Beech Hill SU6964 (JL)

1590 *Vanessa atalanta* Red Admiral [59.023]
Red Cow, from 08-Jul-13 to 27-Oct-13,
SU592868 (a remarkably late first record, AR)
Earliest sighting: 14-Apr-13, Moor Copse,
Hogmoor Copse SU634740 (JH)

1591 *Vanessa cardui* Painted Lady [59.024]
Red Cow, 20-Aug-13, SU592868 (AR)
Earliest sighting: 08-Jul-13, Sheepdrove
SU3682 (JL)
Latest sightings: 30-Aug-13, Mortimer,
Hundred Acre Piece SU639651 (JH) & 30-
Aug-13, Great Shefford SU3775 (JL)
Also seen at Lardon Chase, Streatley
SU588809 (JH), Tilehurst SU665743 (JL),
Watts Bank SU3376 (JL) & Lambourn Corner,
on B4000 SU290810 (JH)

1593 *Aglais urticae* Small Tortoiseshell
[59.027]
Red Cow, from 1-Feb-13 to 25-Oct-13,
SU592868 (AR)
41 other records, many more than in recent
years.(NMH)
Latest sighting: 04-Sep-13, Aldworth
SU554794 (JH)
High count: 85 on 28-Aug-13, Sheepdrove

SU359818, in herb garden (JL)

1597 *Aglais io* The Peacock [59.026]
Red Cow, from 17-Apr-13 to 13-Nov-13,
SU592868 (AR)
Earliest record: 15-Feb-13, The Holies,
Streatley SU594798 (JH)

1598 *Polygonia c-album* The Comma
[59.031]
Red Cow, from 5-Mar-13 to 22-Oct-13,
SU592868 (AR)

1607 *Argynnis aglaja* Dark Green Fritillary
[59.019]
Red Cow, 26-Jul-13 & 27-Jul-13, SU592868
(AR)

1608 *Argynnis paphia* Silver-washed Fritillary
[59.017]
Red Cow, from 17-Jul-13 to 26-Aug-13,
SU592868 (AR)
Earliest sighting: 10-Jul-13, Rushall Farm
SU577730 (JL)
Latest sighting: 29-Aug-13, Bradfield
Southend, Lambden's Wood SU607699 (JH)
Also seen at Lambourn Woodlands SU3276
(JL), Whitehill Wood SU3272 (JL), Poughley
SU3472 (JL), Hundred Acre Piece, Mortimer,
SU639651 (JH), Ufton Court SU624667 (JH),
Tilehurst SU665743 (JL), Lardon Chase,
Streatley SU588809 (first here in 16 years of
butterfly transect (JH), Sulham SU6473 (JL),
Watts Bank SU3376 (JL), Paices Wood
SU583638 (JL) & Hermitage SU5174 (JL)

1614 *Pararge aegeria* Speckled Wood
[59.003]
Red Cow, from 30-Apr-13 to 7-Oct-13,
SU592868 (AR)
Latest sighting: 07-Oct-13, 2, Reading,
Whitley, The Cowsey SU728706 (JH)

1620 *Melanargia galathea* Marbled White
[59.012]
Red Cow, from 29-Jun-13 to 30-Jul-13,
SU592868 (AR)
Earliest sighting: 28-Jun-13, The Holies,
Streatley SU594798 (JH)
Latest sighting: 04-Sep-13, Aldworth
SU554794 (JH)
High count: 50 on 15-Jul-13, Lambourn
Woodlands SU3274 (JL)

1621 *Hipparchia semele* The Grayling
[59.013]
Only sightings: 15-Aug-13, Paices Wood
SU583636 (JL), 25-Aug-13, Decoy Heath
SU613638 (JH) & 25-Aug-13, 19, Mortimer,

Hundred Acre Piece, western bank
SU633651, a very high count (JH)

1625 *Pyronia tithonus* The Gatekeeper
[59.011]
Red Cow, from 16-Jul-13 to 21-Aug-13,
SU592868 (AR)
Earliest sighting: 12-Jul-13, Basildon Park
SU6078 (JL)
Latest sighting: 29-Aug-13, Leverton SU3370
(JL)
High count: 54 on 30-Jul-13, Reading
Cemetery SU734732 (JH)

1626 *Maniola jurtina* Meadow Brown [59.010]
Red Cow, from 26-Jun-13 to 06-Oct-13,
SU592868 (AR)
High count: 224 on 24-Jul-13, Aston Upthorpe
Downs SU545837 (JH)

1627 *Coenonympha pamphilus* Small Heath
[59.005]
Red Cow, from 31-May-13 to 31-Aug-13,
SU592868 (AR)
Earliest sighting: 31-May-13, 2, The Holies,
Streatley SU594798 (JH)
Latest sighting: 05-Sep-13, 3, Lardon Chase,
Streatley SU588809 (RB)
High count: 39 on 04-Sep-13, Aston Upthorpe
Downs SU545837 (JH)

1629 *Aphantopus hyperantus* The Ringlet
[59.009]
Red Cow, from 4-Jul-13 to 8-Aug-13,
SU592868 (AR)
11-Aug-13, 2, Sulham SU6473 (JL)

DREPANIDAE (Hook-tips)

1647 *Watsonalla cultraria* Barred Hook-tip
[65.003] Local
01-Aug-13, Westwood Road, Tilehurst
SU666742, third for garden, last recorded
2006 (JH)

1652 *Thyatira batis* Peach Blossom [65.008]
Common
from 03-Jul-13, Baynes Wood SU511651
(LLP) to 01-Aug-13, Manor Farm Bonds
Gulley SU537650 (LLP)
11-Jul-13, 1 at actinic, Crawshay Drive,
Emmer Green SU718772, first record for
several years (JN)

1655 *Tetthea or* Poplar Lutestring [65.011]
Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1660 *Polyplocia ridens* Frosted Green
[65.015] Local
23-Apr-13, 2, Greenham Common (616)
SU499652 (LLP)

GEOMETRIDAE (Moths with looping larvae)

1667 *Comibaena bajularia* Blotched Emerald
[70.300] Local
03-Jul-13, Baynes Wood SU511651 (LLP)
13-Jul-13, Snelsmore Common SU461711
(NMH)

1673 *Hemistola chrysoprasaria* Small
Emerald [70.302] Local
10 & 11-Jul-13, Harcourt Drive (Earley)
SU735709 (NMH)
13-Jul-13, Snelsmore Common SU461711
(NMH)
18-Jul-13, Thatcham Marsh SU502666 (LLP)

1677 *Cyclophora albipunctata* Birch Mocha
[70.032] Local
20-Aug-13, 9, Wildmoor Heath SU843628
(NMH)

1680 *Cyclophora punctaria* Maidens Blush
[70.036] Local
07-Jun-13, 2, Bowdown Bomb Site
SU506653 (LLP)
13-Jul-13, Snelsmore Common SU461711
(NMH)
01-Aug-13, Manor Farm Stream SU544656
(LLP)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)
15-Aug-13, Thatcham Marsh SU502666
(LLP)
18-Aug-13, Westwood Road, Tilehurst
SU666742 (JH)
20-Aug-13, Wildmoor Heath SU843628
(NMH)

1681 *Cyclophora linearia* Clay Triple-lines
[70.037] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)
17-Jul-13, Basildon Park SU6077 (JL)

1693 *Scopula floslactata* Cream Wave
[70.027] Local
07-Jun-13, 2, Bowdown Bomb Site
SU506653 (LLP)

1699 *Idaea rusticata* Least Carpet [70.004]
Local
Red Cow, from 28-Jun-13 to 5-Aug-13, 4 on
05-Aug-13, SU592868 (AR)
Latest sighting: 27-Sep-13, Harcourt Drive

(Earley) SU735709 (NMH)

1705 *Idaea fuscovenosa* Dwarf Cream Wave
[70.006] Local
11-Jul-13, 2 & 12-Jul-13, 2, Harcourt Drive
(Earley) SU735709 (NMH)

1711 *Idaea trigeminata* Treble Brown Spot
[70.012] Local
03-Jul-13, Baynes Wood SU511651 (LLP)
10-Jul-13, 11-Jul-13 & 13-Jul-13, Snelsmore
Common SU461711 (NMH)

1712 *Idaea emarginata* Small Scallop
[70.015] Local
13-Jul-13, Red Cow SU592868 (AR)
18-Jul-13, 2, Thatcham Marsh SU502666
(LLP)
03-Aug-13, Hosehill Lake SU651698
(RDNHS)

1715 *Idaea straminata* Plain Wave [70.018]
Local
13-Jul-13, 25, Snelsmore Common
SU461711 (NMH)

1716 *Rhodometra sacraria* The Vestal
[70.038] Immigrant
from 31-Jul-13 to 08-Oct-13, 2, Red Cow
SU592868 (AR)
01-Aug-13, Manor Farm Stream SU544656
(LLP)
22-Oct-13, Harcourt Drive (Earley) SU735709
(NMH)

1718 *Phibalapteryx virgata* Oblique Striped
[70.039] NB
31-Jul-13, Red Cow SU592868 (AR)
Last seen in VC22 (historic Berkshire) in
1984 (Photo Page 38)

1720 *Nycterosea obstipata* The Gem
[70.047] Immigrant
05-Sep-13, Harcourt Drive (Earley)
SU735709 (NMH)
03-Oct-13, Bowdown Woods SU501656
(LLP)

1726 *Xanthorhoe quadrifasiata* Large Twin-
spot Carpet [70.055] Local
from 29-Jun-13 to 20-Jul-13, Red Cow
SU592868 (AR)
13-Jul-13, 2, Snelsmore Common SU461711
(NMH)
18-Jul-13, 2, Thatcham Marsh SU502666
(LLP)
01-Aug-13, Westwood Road, Tilehurst
SU666742, second for garden (JH)
01-Aug-13, 2, Manor Farm Bonds Gulley

SU537650 & 5, Manor Farm Stream
SU544656 (LLP)

1736 *Catarhoe cuculata* Royal Mantle
[70.056] Local
from 29-Jun-13 to 13-Jul-13, Red Cow
SU592868 (AR)

1759 *Ecliptopera silaceata* Small Phoenix
[70.094] Common
18-Aug-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

1760 *Chloroclysta siterata* Red-green Carpet
[70.095] Common
11-Nov-13, 3, Westwood Road, Tilehurst
SU666742, latest ever (JH)

1766 *Plemyria rubiginata* Blue-bordered
Carpet [70.084] Local
11-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)
13-Jul-13, Snelsmore Common SU461711
(NMH)
18-Jul-13, 2, Thatcham Marsh SU502666
(LLP)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)

1767 *Pennithera firmata* Pine Carpet
[70.077] Common
12-Sep-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)
28-Sep-13, 30-Sep-13, 19-Oct-13, Harcourt
Drive (Earley) SU735709 (new for garden
NMH)
This moth seems to have had a very good
year. I was astonished to find that it was new
for my garden, as I have been trapping there
for 27 years and there is a mature Pine
nearby (NMH)

1769 *Thera britannica* Spruce Carpet
[70.079] Common
11-Nov-13, Westwood Road, Tilehurst
SU666742, latest ever (JH)

1771A *Thera cupressata* Cypress Carpet
[70.083] Uncommon
21-Oct-13, Harcourt Drive (Earley) SU735709
(NMH)
A species expanding its range, but still very
scarce despite the great number of cypresses
planted in gardens.

1782 *Horisme tersata* The Fern [70.127]
Common
13-Jul-13, 1 at actinic, Crawshay Drive,
Emmer Green SU718772, first record for

several years (JN)

1789 *Hydria undulata* Scallop Shell [70.121]
Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1790 *Triphosa dubitata* The Tissue [70.123]
Local
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)

1791 *Philereme vetulata* Brown Scallop
[70.118] Local
18-Jul-13, 2, Thatcham Marsh SU502666
(LLP)
20-Jul-13, 1 at actinic, Crawshay Drive,
Emmer Green SU718772, first record for
several years (JN)

1804 *Perizoma bifaciata* Barred Rivulet
[70.134] Local
03-Aug-13, Hosehill Lake SU651698
(possibly under-recorded locally. Could occur
wherever there is Red Bartsia NMH)

1807 *Perizoma albulata* Grass Rivulet
[70.137] Local
20-Jun-13, 3, Watts Bank SU3377 (JL)

1813 *Eupithecia haworthiata* Haworths Pug
[70.146] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1828 *Eupithecia satyrata* Satyr Pug [70.177]
Common
04-Aug-13, 1 larva, Oven Bottom SU537835,
new species for me (JH)

1830 *Eupithecia absinthiata* Wormwood Pug
[70.179] Common
25-Jul-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

1835 *Eupithecia tripunctaria* White-spotted
Pug [70.160] Local
25-Jul-13, Westwood Road, Tilehurst
SU666742, last recorded 2009 (JH)
01-Aug-13, Manor Farm Stream SU544656
(LLP)
01-Aug-13, 2, Manor Farm Bonds Gulley
SU537650 (LLP)
15-Aug-13, Thatcham Marsh SU502666
(LLP)

1855 *Eupithecia phoeniceata* Cypress Pug
[70.159] Uncommon
23-Aug-13, 1 at actinic, Crawshay Drive,

Emmer Green SU718772, first for garden (JN)
 05-Sep-13 & 02-Oct-13, Harcourt Drive (Earley) SU735709 (NMH)
 A species expanding its range, but still very scarce despite the great number of cypresses planted in gardens.

1874 *Euchoeca nebulata* Dingy Shell [70.112] Local
 27-May-13, Moor Copse, Moor Copse N.R. (JL)
 07-Jun-13, 2, Bowdown Bomb Site SU506653 (LLP)
 19-Jun-13, Westwood Road, Tilehurst SU666742, second for garden, last recorded 2006 (JH)
 03-Jul-13, Baynes Wood SU511651 (LLP)
 18-Jul-13, 2, Thatcham Marsh SU502666 (LLP)
 01-Aug-13, Manor Farm Stream SU544656 & 2, Manor Farm Bonds Gulley SU537650 (LLP)

1878 *Minoa murinata* Drab Looper [70.117] NB
 26-May-13, 8, Owlpit Copse, Rushall Farm, Bradfield (JL)
 13-Aug-13, 8, 15-Aug-13, 5 & 23-Aug-13, 4, 'Butterfly field', Paices Wood SU583638, impressive numbers for such a tiny patch in the wood (JL)

1879 *Lobophora halterata* The Seraphim [70.198] Local
 19-Jul-13, Red Cow SU592868 (AR)

1882 *Pterapherapteryx sexalata* Small Seraphim [70.199] Local
 07-Jun-13, 2, Bowdown Bomb Site SU506653 (LLP)
 18-Jun-13, 3, Thatcham Marsh SU502666 (LLP)
 12-Jul-13, Red Cow SU592868 (AR)
 13-Jul-13, Snelsmore Common SU461711 (NMH)
 18-Jul-13, 14, Thatcham Marsh SU502666 (LLP)
 03-Aug-13, Hosehill Lake SU651698 (RDNHS)
 15-Aug-13, Thatcham Marsh SU502666 (LLP)
 20-Aug-13, Wildmoor Heath SU843628 (NMH)

1883 *Acasis viretata* Yellow-barred Brindle [70.200] Local
 7-May-13 & from 20-Aug-13 to 26-Aug-13, 4 on 24-Aug-13, Red Cow SU592868 (AR)

07-Jun-13, Bowdown Bomb Site SU506653 (LLP)
 15-Aug-13, Thatcham Marsh SU502666 (LLP)
 05-Sep-13, Harcourt Drive (Earley) SU735709 (NMH)

1888 *Ligdia adustata* Scorched Carpet [70.208] Local
 from 5-Aug-13 to 21-Aug-13, Red Cow SU592868 (AR)
 01-Aug-13, Manor Farm Bonds Gulley SU537650 (LLP)
 03-Aug-13, 2, Hosehill Lake SU651698 (RDNHS)

1889 *Macaria notata* Peacock Moth [70.211] Local
 07-Jun-13, Bowdown Bomb Site SU506653 (LLP)
 09-Aug-13, Padworth Common, east section SU622647 (JH)
 20-Aug-13, 13, Wildmoor Heath SU843628 (NMH)
 29-Aug-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

1890 *Macaria alternaria* Sharp-angled Peacock [70.212] Local
 18-Jul-13, Thatcham Marsh SU502666 (LLP)
 01-Aug-13, Manor Farm Stream SU544656 & Manor Farm Bonds Gulley SU537650 (LLP)
 15-Aug-13, Thatcham Marsh SU502666 (LLP)

1893 *Macaria liturata* Tawny-barred Angle [70.214] Common
 29-Aug-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

1904 *Plagodis dolabraria* Scorched Wing [70.224] Local
 07-Jun-13, 27, Bowdown Bomb Site SU506653 (LLP)
 19-Jun-13, 2, Westwood Road, Tilehurst SU666742, third for garden, last recorded 2007 (JH)
 03-Jul-13, Baynes Wood SU511651 (LLP)
 07-Jul-13, Red Cow SU592868 (AR)

1905 *Pachycnemia hippocastanaria* Horse Chestnut [70.225] NB
 20-Aug-13, 2, Wildmoor Heath SU843628 (NMH)

1910 *Apeira syringaria* Lilac Beauty [70.231] Local
 12-Jul-13, Red Cow SU592868 (AR)

1912 *Ennomos quercinaria* August Thorn
[70.233] Local
from 22-Jul-13 to 30-Aug-13, Red Cow
SU592868 (AR)

1917 *Selenia dentaria* Early Thorn [70.237]
Common
23-Jul-13, Crawshay Drive, Emmer Green
SU718772, first for garden. A very dark
female. (JN)

1940 *Deileptenia ribeata* Satin Beauty
[70.264] Common
13-Jul-13, Snelsmore Common SU461711
(NMH). Although this is classified as common,
this is a species I rarely see (NMH)

1943 *Hypomecis roboraria* Great Oak Beauty
[70.267] NB
03-Jul-13, Baynes Wood SU511651 (LLP)

1949 *Paradarisa consonaria* Square Spot
[70.272] Local
07-Jun-13, Bowdown Bomb Site SU506653
(LLP)

1950 *Parectropis similaria* Brindled White-
spot [70.273] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

1970 *Perconia strigillaria* Grass Wave
[70.295] Local
24-Jun-13, Decoy Heath SU6163 (JL)
28-Jun-13, Broadmoor Bottom SU857628
(JL)
04-Jul-13, Wildmoor SU8463 (JL)

SPHINGIDAE (Hawk-Moths)

1978 *Sphinx pinastri* Pine Hawk-moth
[69.007] Local
from 12-Jul-13 to 18-Jul-13, Red Cow
SU592868 (AR)
13-Jul-13, Snelsmore Common SU461711
(NMH)
18-Jul-13, Thatcham Marsh SU502666 (LLP)
20-Aug-13, Wildmoor Heath SU843628
(NMH)

1979 *Mimas tiliae* Lime Hawk-moth [69.001]
Common
07-Jun-13, Bowdown Bomb Site SU506653
(LLP)

1980 *Smerinthus ocellata* Eyed Hawk-moth
[69.002] Common
15-Jun-13, Westwood Road, Tilehurst
SU666742, third for garden (JH)

18-Jun-13, Thatcham Marsh SU502666 (LLP)
28-Jun-13, Red Cow SU592868 (AR)

1984 *Macroglossum stellatarum* Humming-
bird Hawk-moth [69.010] Immigrant
07-May-13, Red Cow SU592868 (AR)

1992 *Deilephila porcellus* Small Elephant
Hawk-moth [69.017] Local
from 14-Jun-13 to 11-Jul-13, 17 in all,
Crawshay Drive, Emmer Green SU718772,
The second good year running for this
species (JN)
from 28-Jun-13 to 18-Jul-13, 35 on 29-Jun-
13, Red Cow SU592868, amazing (AR)
29-Jun-13, Westwood Road, Tilehurst
SU666742 (JH)
03-Jul-13, Baynes Wood SU511651 (LLP)
13-Jul-13, Snelsmore Common SU461711
(NMH)
03-Aug-13, larva, Woolley Firs SU8580 (JL)
01-Sep-13, larva, Oven Bottom SU537835,
larva, new species for me (JH)

NOTODONTIDAE (Prominents)

1994 *Phalera bucephala* Buff-tip [71.025]
Common
High Count: 26 on 13-Jul-13, Snelsmore
Common SU461711 (NMH)

1998 *Furcula bifida* Poplar Kitten [71.007]
Local
07-Jun-13, Bowdown Bomb Site SU506653
(LLP)

2000 *Notodonta dromedarius* Iron Prominent
[71.012] Common
22-Aug-13, 4, Westwood Road, Tilehurst
SU666742, a good year for Iron Prominent.
Year total 13, previous highest 3. (JH)

2005 *Peridea anceps* Great Prominent
[71.016] Local
02-Jun-13, Crawshay Drive, Emmer Green
SU718772, second for garden after many
years (JN)

2009 *Ptilodon cucullina* Maple Prominent
[71.022] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

2019 *Clostera curtula* Chocolate-tip [71.027]
Local
19-Jun-13, Westwood Road, Tilehurst
SU666742, third for garden (JH)

EREBIDAE (part) (Lymantrids,

Footmen, Tigers

2029 *Euproctis chrysorrhoea* Brown-tail
[72.012] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)
15-Jul-13, Red Cow SU592868 (AR)

2031 *Leucoma salicis* White Satin Moth
[72.009] Local
14-Jul-13 to 2-Aug-13, Red Cow SU592868
(AR)
18-Jul-13, Thatcham Marsh SU502666 (LLP)

2033 *Lymantria monacha* Black Arches
[72.010] Local
01-Aug-13, Manor Farm Stream SU544656
(LLP)
01-Aug-13, 4, Manor Farm Bonds Gulley
SU537650 (LLP)
03-Aug-13, Hosehill Lake SU651698
(RDNHS)
20-Aug-13, 3, Wildmoor Heath SU843628
(NMH)

2035 *Thumatha senex* Round-winged Muslin
[72.037] Local
13-Jul-13, 2, Snelsmore Common SU461711
(NMH)
18-Jul-13, 3, Thatcham Marsh SU502666
(LLP)

2037 *Mitochrista miniata* Rosy Footman
[72.035] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)
18-Jul-13, 2, Thatcham Marsh SU502666
(LLP)
01-Aug-13, 3, Manor Farm Stream SU544656
& 3, Manor Farm Bonds Gulley SU537650
(LLP)
03-Aug-13, Hosehill Lake SU651698
(RDNHS)
15-Aug-13, 2, Thatcham Marsh SU502666
(LLP)
20-Aug-13, 8, Wildmoor Heath SU843628
(NMH)

2039 *Atolmis rubricollis* Red-necked
Footman [72.042] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

2040 *Cybosia mesomella* Four-dotted
Footman [72.038] Local
13-Jul-13, 35, Snelsmore Common
SU461711 (NMH)
18-Jul-13, Thatcham Marsh SU502666 (LLP)

2043 *Eilema sororcula* Orange Footman
[72.049] Local
07-Jun-13, 26, Bowdown Bomb Site
SU506653 (LLP)
18-Jun-13, Thatcham Marsh SU502666 (LLP)
03-Jul-13, Baynes Wood SU511651 (LLP)
This species became quite common a few
years ago, but now seems to have declined
again (NMH)

2045 *Eilema caniola* Hoary Footman [72.047]
NB
18-Jul-13, 4, Westwood Road, Tilehurst
SU666742, third for garden (JH)
20-Aug-13, Wildmoor Heath SU843628
(NMH)
Much less frequent than Scarce Footman,
and not so easy to identify (NMH)

2047 *Eilema complana* Scarce Footman
[72.046] Local
12-Jul-13 to 10-Aug-13, Red Cow SU592868
(AR)
13-Jul-13, 9, Snelsmore Common SU461711
(NMH)
18-Jul-13, 20, Thatcham Marsh SU502666
(LLP)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 & Manor Farm Stream SU544656
(LLP)
15-Aug-13, Thatcham Marsh SU502666
(LLP)

2049 *Eilema depressa* Buff Footman
[72.043] Local
12-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)
13-Jul-13, Snelsmore Common SU461711
(NMH)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 & Manor Farm Stream SU544656
(LLP)
15-Aug-13, Thatcham Marsh SU502666
(LLP)
20-Aug-13, Wildmoor Heath SU843628
(NMH)

2051 *Lithosia quadra* Four-spotted Footman
[72.041] Local
03-Oct-13, Bowdown Woods SU501656
(LLP)
First time I'd seen it in Berkshire. Usually
thought of as a migrant (NMH)

2057 *Arctia caja* Garden Tiger [72.026]
Common
15-Jul-13, Sheepdrove Farm SU361819, per
Jez Elkin (JL)
This species certainly *used* to be common,

but it has declined so much that it became the target species for this year's National Moth Nights.

2064 *Phragmatobia fuliginosa* Ruby Tiger [72.024] Common
04-Mar-13, larva, Wokefield Common, sunning on a refuge (for monitoring reptiles) in heather (JL)

2068 *Callimorpha dominula* Scarlet Tiger [72.029] Local
Earliest records: 14-Jun-13, 3, Westwood Road, Tilehurst SU666742 (JH) & 7, Pierces Hill, Tilehurst SU6772 (JL)
Latest record: 23-Jul-13, Pangbourne Meadows SU6467 (JL)
3-Jul-13 & 17-Jul-13, both at actinic, Crawshay Drive, Emmer Green SU718772, and yet this species is rarely seen in the Emmer Green area in daytime (JN)
21-Apr-13, 2 larvae in garden Westwood Road, Tilehurst SU666742 (JH)
28-Apr-13, 20 fully-grown larvae on White Comfrey, Old Cemetery, Reading, in a very warm spot (JL)

NOLIDAE

2075 *Meganola strigula* Small Black Arches [74.001] NA
13-Jul-13, 7, Snelsmore Common SU461711 (NMH)

2076 *Meganola albula* Kent Black Arches [74.002] NB
13-Jul-13, Snelsmore Common SU461711 (NMH)
18-Jul-13, 2, Thatcham Marsh SU502666 (LLP)

2078 *Nola confusalis* Least Black Arches [74.004] Local
07-Jun-13, Bowdown Bomb Site SU506653 (LLP)

NOCTUIDAE

2091 *Agrotis ipsilon* Dark Sword-grass [73.327] Immigrant
20-Aug-13, Wildmoor Heath SU843628 (NMH)
01 & 02-Oct-13, Harcourt Drive (Earley) SU735709 (NMH)
03-Oct-13, Bowdown Woods SU501656 (LLP)
18-Oct-13, 31-Oct-13, 3 & 11-Nov-13, Westwood Road, Tilehurst SU666742 (JH)
3 in a night was JHs highest count ever and

11-Nov was her latest ever. She thought it was a good year for Dark Sword Grass but I was surprised that there were so few records before the autumn (NMH)

2107 *Noctua pronuba* Large Yellow Underwing [73.342] Common
High counts of 92 to 133 from 12-09-13 to 02-10-13 whenever the traps were run (10 nights in all), Harcourt Drive (Earley) SU735709 (NMH)

2109 *Noctua comes* Lesser Yellow Underwing [73.345] Common
none until 18-07-13, Thatcham Marsh SU502666 (LLP)
High count: 94 on 21-Sep-13, Westwood Road, Tilehurst SU666742, highest count ever, previous highest 30 (JH)

2111 *Noctua janthe* Lesser Broad-bordered Yellow Underwing [73.348] Common
High count: 100 on 15-Aug-13, Thatcham Marsh SU502666 (LLP)

2118 *Lycophotia porphyrea* True Lovers Knot [73.338] Common
High count 353 on 13-Jul-13, Snelsmore Common SU461711, in fact, my highest count for any species anywhere (NMH)
18-Jul-13, Westwood Road, Tilehurst SU666742, new for garden (JH)

2130 *Xestia baja* Dotted Clay [73.353] Common
20-Aug-13, Wildmoor Heath SU843628 (NMH).
A species becoming less common; distribution seems to be moving north (NMH)

2132 *Xestia castanea* Neglected Rustic [73.355] Local
20-Aug-13, 6, Wildmoor Heath SU843628 (NMH)

2136 *Naenia typica* The Gothic [73.368] Local
18-Jul-13, Thatcham Marsh SU502666 (LLP)

2142 *Anarta myrtille* Beautiful Yellow Underwing [73.257] Common
13-Jul-13, 7, Snelsmore Common SU461711 (NMH)
20-Aug-13, Wildmoor Heath SU843628 (NMH)
Normally day-flying; much less frequently seen at night (NMH)

2157 *Lacanobia w-latinum* Light Brocade

[73.263] Local
 03-Jun-13, 528 Wokingham Road, Earley
 SU756715 (RB)
 07-Jun-13, 2, Bowdown Bomb Site
 SU506653 (LLP)
 18-Jun-13, Thatcham Marsh SU502666 (LLP)
 29-Jun-13, Red Cow SU592868 (AR)

2184 *Orthosia opima* Northern Drab
 [73.248] Local
 23-Apr-13, Greenham Common (616)
 SU499652 (LLP), first time I'd found it in
 Berkshire (NMH)

2194 *Mythimna albipuncta* White-point
 [73.297] Recent colonist
 from 12-Jul-13 to 3-Oct-13, 3 on 30-Aug-13,
 Red Cow SU592868 (AR)
 8 other records from elsewhere within this
 date range. (NMH)

2196 *Mythimna pudorina* Striped Wainscot
 [73.289] Local
 13-Jul-13, Snelsmore Common SU461711
 (NMH)

2197 *Mythimna straminea* Southern
 Wainscot [73.294] Local
 18-Jul-13 & 15-Aug-13, Thatcham Marsh
 SU502666 (LLP)

2204 *Leucania obsoleta* Obscure Wainscot
 [73.302] Local
 18-Jun-13, 4, & 18-Jul-13, 3, Thatcham
 Marsh SU502666 (LLP)

2219 *Cucullia lychnitis* Striped Lychnis
 [73.057] NA
 from 10-Aug-13 to 23-Aug-13, a small
 number of larvae feeding on *Verbascum*
nigrum in garden, Crawshay Drive, Emmer
 Green SU718772, but only one cocoon
 subsequently observed (JN)

2223 *Calophasia lunula* Toadflax Brocade
 [73.059] RDB
 30-May-13, Westwood Road, Tilehurst
 SU666742, new for garden (JH)
 This species arrived in the country in 1950
 and is slowly spreading - but it hasn't yet
 spread into *my* garden! (NMH)

2232 *Aporophyla nigra* Black Rustic [73.233]
 Common
 High count: 02-Oct-13, 7, Westwood Road,
 Tilehurst SU666742, a good year for Black
 Rustic (JH)

2235 *Lithophane semibrunnea* Tawny Pinion

[73.200] Local
 15-Apr-13 & 16-Apr-13, 1 on each date,
 Crawshay Drive, Emmer Green SU718772,
 first records for many years (JN)

2236 *Lithophane hepatica* Pale Pinion
 [73.201] Local
 23-Apr-13, 2, Greenham Common (616)
 SU499652 (LLP)

2252 *Polymixis flavicincta* Large Ranunculus
 [73.237] Local
 from 25-Sep-13 to 01-Oct-13, 21 in all seen,
 but no more than 4 on any night, at Harcourt
 Drive (Earley) SU735709 (NMH) &
 Wokingham Road, Earley SU756715 (RB)

2259 *Conistra ligula* Dark Chestnut [73.195]
 Common
 17-Oct-13, Greenham Common
 (Brackenhurst Heath) SU487642 (LLP)
 18-Oct-13, Crawshay Drive, Emmer Green
 SU718772, earliest ever record for this
 species (JN)
 23-Oct-13, Harcourt Drive (Earley) SU735709
 (NMH)

2268 *Parastichtis suspecta* The Suspected
 [73.221] Local
 13-Jul-13, Snelsmore Common SU461711
 (NMH)

2270 *Omphaloscelis lunosa* Lunar
 Underwing [73.193] Common
 High count: 21-Sep-13, 94, Westwood Road,
 Tilehurst SU666742, highest count ever,
 previous highest 30 (JH)

2272 *Tiliacea aurago* Barred Sallow [73.180]
 Common
 Late record: 11-Nov-13, Westwood Road,
 Tilehurst SU666742, latest ever (JH)

2279 *Acronicta aceris* The Sycamore
 [73.039] Local
 from 29-Jun-13 to 20-Jul-13, 3 on 15-Jul-13,
 Red Cow SU592868 (AR)
 12-Jul-13, 2, Harcourt Drive (Earley)
 SU735709 (NMH)

2281 *Acronicta alni* Alder Moth [73.036]
 Local
 07-Jun-13, 7, Bowdown Bomb Site
 SU506653 (LLP)

2291 *Craniophora ligustri* The Coronet
 [73.047] Local
 Earliest record: 07-Jun-13, 2, Bowdown
 Bomb Site SU506653 (LLP)

Latest record: 15-Aug-13, Thatcham Marsh
SU502666 (LLP)
High count: 43, Thatcham Marsh SU502666
(LLP)
Numbers have been increasing year on year.
I now consider this a common species (NMH)

2300 *Mormo maura* Old Lady [73.107] Local
27-Aug-13, Red Cow SU592868 (AR)
30-Sep-13, 528 Wokingham Road, Earley
SU756715 (RB)

2301 *Dypterygia scabriuscula* Birds Wing
[73.105] Local
03-Jul-13, Baynes Wood SU511651 (LLP)
13-Jul-13, Snelsmore Common SU461711
(NMH)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)

2303 *Thalophila matura* Straw Underwing
[73.109] Common
08-Aug-13, 8, Westwood Road, Tilehurst
SU666742, new for garden (JH)

2306 *Phlogophora meticulosa* Angle-shades
[73.113] Common
Late record: 11-Nov-13, 2, Westwood Road,
Tilehurst SU666742, latest ever (JH)

2311 *Ipimorpha retusa* Double Kidney
[73.212] Local
01-Aug-13, Manor Farm Stream SU544656
(LLP)
03-Aug-13, Hosehill Lake SU651698
(RDNHS)

2312 *Ipimorpha subtusa* The Olive [73.213]
Local
01-Aug-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

2314 *Apterogenum ypsilon* Dingy Shears
[73.222] Local
18-Jul-13, 8, Thatcham Marsh SU502666
(LLP)
01-Aug-13, 3, Manor Farm Stream SU544656
(LLP)

2323 *Apamea sublustris* Reddish Light
Arches [73.164] Local
12-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)

2326 *Apamea crenata* Clouded-bordered
Brindle [73.156] Common
High count: 18-Jun-13, 16, Thatcham Marsh
SU502666 (LLP)
29-Jun-13, Westwood Road, Tilehurst

SU666742, new for garden (JH)

2333 *Apamea anceps* Large Nutmeg
[73.157] Local
from 28-Jun-13 to 12-Jul-13, 12 on 29-Jun-
13, Red Cow SU592868 (AR)
07-Jun-13, Bowdown Bomb Site SU506653
(LLP)
18-Jun-13, 3, Thatcham Marsh SU502666
(LLP)
13-Jul-13, 2, Snelsmore Common SU461711
(NMH)
18-Jul-13, Thatcham Marsh SU502666 (LLP)

2345 *Photedes minima* Small Dotted Buff
[73.147] Common
18-Jul-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)

2352 *Eremobia ochroleuca* Dusky Sallow
[73.120] Common
18-Jul-13, 2, Westwood Road, Tilehurst
SU666742, new for garden (JH)

2358 *Amphipoea fucosa* Saltern Ear [73.126]
Local
03-Aug-13, Hosehill Lake SU651698
(RDNHS)
Unexpected. There are very few records
away from the south and east coasts, identity
confirmed by dissection (NMH)

2368 *Helotropha leucostigma* The Crescent
[73.119] Local
09-Aug-13, Red Cow SU592868 (AR)
15-Aug-13, 6, Thatcham Marsh SU502666
(LLP)

2370 *Lenisa geminipuncta* Twin-spotted
Wainscot [73.139] Local
15-Aug-13, Thatcham Marsh SU502666
(LLP)

2371 *Archanara dissoluta* Brown-veined
Wainscot [73.141] Local
15-Aug-13, 2, Thatcham Marsh SU502666
(LLP)

2377 *Arenostola phragmitidis* Fen Wainscot
[73.137] Local
01-Aug-13, Manor Farm Stream SU544656
(LLP)
15-Aug-13, 3, Thatcham Marsh SU502666
(LLP)

2379 *Coenobia rufa* Small Rufous [73.142]
Local
01-Aug-13, 2, Manor Farm Stream SU544656
(LLP)

01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)

2391 *Chilodes maritima* Silky Wainscot
[73.100] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)
18-Jul-13, 5, Thatcham Marsh SU502666
(LLP)

2421 *Bena bicolorana* Scarce Silver-lines
[74.007] Local
11-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)
13-Jul-13, 2, Snelsmore Common SU461711
(NMH)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 (LLP)

2423 *Nycteola revayana* Oak Nycteoline
[74.009] Local
23-Apr-13, Greenham Common (616)
SU499652 (LLP)
10-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)

2435 *Diachrysia chryson* Scarce Burnished
Brass [73.011] NA
18-Jul-13, Thatcham Marsh SU502666, first
record for many years (LLP)
The food plant, Hemp Agrimony, is abundant
at Thatcham, but on the LLP nothing
evenings this is the only one we've seen
there. Species in decline? (NMH)

2439 *Plusia festucae* Gold Spot [73.022]
Common
26-Aug-13, Red Cow SU592868 (AR)
Though nationally common, it is not very
common in our area (NMH)

EREBIDAE (part)

2473 *Laspeyria flexula* Beautiful Hook-tip
[72.069] Local
13-Jul-13, 18, Snelsmore Common
SU461711 (NMH)
18-Jul-13, Westwood Road, Tilehurst
SU666742, new for garden (JH)
Species apparently increasing – and more
frequently producing a second brood in the
autumn. (NMH)

2475 *Parascotia fuliginaria* Waved Black
[72.066] NB
18-Jul-13 & 31-Jul-13, 2 on 18-Jul-13, Red
Cow SU592868 (AR)
12-Jul-13, Harcourt Drive (Earley) SU735709
(NMH)
01-Aug-13, Manor Farm Bonds Gulley
SU537650 & Manor Farm Stream SU544656
(LLP)

2476 *Hypena crassalis* Beautiful Snout
[72.007] Local
13-Jul-13, Snelsmore Common SU461711
(NMH)

2480 *Hypena rostralis* Buttoned Snout
[72.004] NB
09-Nov-13, Red Cow SU592868, in bedroom
- as happens most years (AR)
Unusual in overwintering as an adult (NMH)

2484 *Schrankia costaestrigalis* Pinion-
streaked Snout [72.061] Local
03-Oct-13, 1, Bowdown Woods SU501656
(LLP)

CONTRIBUTORS

Thanks are due to the following members for their submissions:

(AR) Tony Rayner, (JH) Jan Haseler, (JL) John Lerpiniere, (JN) John Notton, (RB) Ricki Bull.

RECORDER'S REPORT FOR ENTOMOLOGY AND OTHER INVERTEBRATES

Chris Raper

I hardly made it out into the countryside last year myself but I got the impression that the cold start wasn't all that disastrous to invertebrates in the long term. The very early Spring species that had been doing so well in 2011 and 2012 certainly seemed to suffer but April/May species just emerged later and were seen in lower numbers.

It's difficult to know whether the reduced numbers were really because populations were lower or just that the cold prevented them moving around and therefore they didn't present themselves to observers.

Throughout the year species seemed to emerge 3-4 weeks later than they would normally do (an echo of the late Spring) and flight periods were longer than I would have expected.

My thanks go out to everyone who sent me records last year and who managed to record in quite a difficult year.

Insects

buddleia – dates not recorded.

Coleoptera

Lucanus cervus, Stag Beetle, 1/6/2013-2/8/2013, Red Cow, Cholsey, Tony Rayner. A good year for the stags, including some rescued from the road outside before becoming squashed by traffic. Up to 6 seen on 16 dates. On 30/6/13 a male caught in moth trap.

Lampyris noctiluca, Glow-worm, 18/07/2013, Bucklebury Common, Roger Frankum

Timarcha tenebricosa, Bloody-nose beetle, 18/05/2013, 1, Hartslock SSSI (SU616796), Chris Raper

Bombylius discolor, Spotted bee-fly, 19/05/2013, Hartslock SSSI (SU616796), Chris Raper

Gymnocheta viridis, a parasite fly, 02/05/2013, Hartslock SSSI (SU616796), Chris Raper

Eriothrix prolixa, a parasite fly, 03/06/2013, Hartslock SSSI (SU616796), Chris Raper

Bibio marci, St. Mark's fly, 18/05/2013, Hartslock SSSI (SU616796), Chris Raper

Empis tessellata, a dance fly, 18/05/2013, Hartslock SSSI (SU616796), Chris Raper

Diptera

Asilus crabroniformis, Hornet Robber fly, 26/7/2013-26/8/2013, Red Cow, Cholsey, Tony Rayner. 2012 was an exceptionally good year, so surprising to be followed by its worst ever showing. The maximum count was just 2. (compares with 46 in 2012).

Leucozona lucorum, a hoverfly, 25/05/2013, Dancers End BBOWT reserve, Crong Valley waterworks (SP904088), RDNHS (det. Jan Haseler)

Chrysotoxum cautum, a hoverfly, 27/05/2013, Hartslock SSSI (SU616796), Chris Raper

Volucella zonaria, Red Cow, Cholsey, Tony Rayner, As in 2012, frequently found on

Hemiptera

Canthophorus impressus, Bastard Toadflax bug, 03/06/2013, Hartslock SSSI (SU616796), Chris Raper

Hymenoptera

Bombus hypnorum, Tree Bumblebee, 28/06/2013, Tilehurst, Westwood Road (SU666742), Jan Haseler

Bombus lucorum, White-tailed Bumblebee, 10/08/2013, Oven Bottom (SU537835), RDNHS (det. Graham Saunders)

Bombus terrestris, Buff-tailed Bumblebee, 10/08/2013, Oven Bottom (SU537835), RDNHS (det. Graham Saunders)

Bombus vestalis, Vestal Cuckoo Bee,

10/08/2013, Oven Bottom (SU537835),
RDNHS (det. Graham Saunders)

Bombus campestris, Field Cuckoo Bee,
10/08/2013, Oven Bottom (SU537835),
RDNHS (det. Graham Saunders), Larva seen
after a mothing evening.

Cimbex femoratus, Large Birch Sawfly,
17/10/2013, Brackenhurst Heath (SU483642),
Norman Hall

Up to two seen

Anax imperator, Blue Emperor (formerly
Emperor Dragonfly), 27/6/2013-26/7/2013,
Red Cow, Cholsey, Tony Rayner, Singles only
– another poor year for what is normally a
common species

Sympetrum striolatum, Common Darter,
20/7/2013-23/10/2013, Red Cow, Cholsey,
Tony Rayner, Seen almost daily

Odonata

Pyrhosoma nymphula, Large Red Damsel
(formerly Large Red Damselfly), 25/5/2013-
4/6/2013, Red Cow, Cholsey , Tony Rayner,
Delayed emergence due to poor Spring

Coenagrion puella, Azure Bluet (formerly
Azure Damselfly), 25/5/2013-26/8/2013, Red
Cow, Cholsey, Tony Rayner, Regularly seen

Libellula depressa, Broad-bodied Chaser,
19/5/2013-17/7/2013, Red Cow, Cholsey ,
Tony Rayner, Frequently seen patrolling or
laying, max of 2

Agrion splendens, Banded Demoiselle,
25/6/2013 & 13/7/2011, Red Cow, Cholsey ,
Tony Rayner

Aeshna cyanae, Blue Hawker (formerly
Southern Hawker), 24/7/2013-4/10/2013, Red
Cow, Cholsey, Tony Rayner, Up to two
patrolling or laying

Aeshna mixta, Migrant Hawker, 20/9/2013-
17/10/201, Red Cow, Cholsey, Tony Rayner,
Up to two recorded

Aeshna grandis, Brown Hawker, 14/7/2013-
19/8/2013, Red Cow, Cholsey, Tony Rayner,

Orthoptera

Metrioptera roeselii, Roesel's Bush Cricket,
Red Cow, Cholsey , Tony Rayner, Once again
commonly heard and seen for an extended
period.

Pholidoptera griseoptera, Dark Bush-cricket,
24/08/2013, Nippers Grove (SU678809),
RDNHS (det. Rob Stallard)

Pholidoptera griseoptera, Dark Bush-cricket,
14/09/2013, Park Wood, Moor Copse
BBOWT Reserve (SU636741), Jan Haseler

Spider

Araneus quadratus, Four-spot Orb-weaver,
08/09/2013, 5-Acre Field, Moor Copse
BBOWT Reserve (SU639740), Jan Haseler

Mollusca

Pomatias elegans, 18/05/2013, Hartslock
SSSI (SU616796), Chris Raper

CONTRIBUTORS

Thanks are due to the following members for their submissions:

Roger Frankum, Tony Rayner, Jan Haseler, Graham Saunders, Norman Hall, Rob Stallard

RECORDER'S REPORT FOR VERTEBRATES 2013

Tony Rayner

My grateful thanks to all those who have contributed to this report. Once again special thanks are due to Rod D'Ayala, John Lepeniere, Gordon Crutchfield and Jan Haseler for their invaluable input. Members should note how these people make full use of their gardens for wildlife and recording thereof. Where Cholsey grid references are not stated, the records relate to SU592868 (Red Cow Cottage.) See also my article about the impressive toad counts by John Sumpter, Alan Parfitt et.al.

BIRDS

Exceptional local records

***Upupa epops* Hoopoe**

10/10/13 & 17/10/13 One at Rushall Farm
SU583723 (CM)

***Cuculus canorus* Cuckoo**

2/5/13 One calling at Hundred Acre Piece,
Mortimer SU639646 (JH)
13/8/13 Exhausted/starving juvenile found in
Cholsey garden. SU589867 *Recovered in
wildlife hospital but unlikely to undertake
migration.* (MK)

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

***Aix galericulata* Mandarin Duck**

1/5/13 Two at Fobney Island SU703711 (JL)

***Charadrius dubius* Little Ringed Plover**

1/5/13 One at Fobney Island SU703711 (JL)

***Pluvialis apricaria* Golden Plovers**

20/2/13 A small flock on Aston Upthorpe
Downs (MS)

***Luscinia megarhynchos* Nightingale**

4/5/13 Five at Sheffield Bottom SU653698
(JL)

***Corvus corax* Raven**

15/5/13 One at Bucklebury Common (MS)
10/8/13 One at Oven Bottom (JH)
20/11/13 One at Sulham Woods SU645750
(JC/ID)

***Tyto alba* Barn Owl**

1/5/13 One at Southcote Meadows
SU697713 (JL)

***Scolopax rusticola* Woodcock**

17/2/13 One at Bowdown Woods SU504657
(JL)
21/2/13 One flushed beside Cholsey meadow
(TR)

***Dendrocopos major* Great Spotted Woodpecker**

9/9/2013 Two swinging on overhead
electricity wire above Cholsey garden.
(behaviour not seen before) (TR)

***Carduelis flammea* Lesser Redpoll**

1/1/13 to 18/4/13 Up to 4 in Cholsey garden
almost daily (TR/RR)
7/12/13 5 at Moor Green Lakes SU806624
(RRI)
31/12/13 At least 10 feeding on Silver Birch
seeds in Cholsey garden (TR)

FISH

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

27/4/13 Some in Lower Pond, CS Lewis
reserve (fewer than usual) SP560066 (Rd/A)

AMPHIBIANS

***Bufo bufo* Common Toad**

Mar/Apr 6,134 adults collected and carried
across road at Oaken Wood, Hambledon.
New ponds constructed by Rod D'Ayala to
reduce road casualties (JS/AP)
16/4/13 Two adults at Brookfield School,
Tilehurst SU662753 (JL)
6/5/13 Immature at Five-a-day market
garden, Englefield SU625710 (JL)
30/5/13 75 adults in Sea Pond, Nettlebed
Common SU701871 (Rd/A)
25/6/13 Toadlet in Cholsey garden pond (TR)
1/7/13 Toadlet in Cholsey garden by garage
(TR)
7/13 100s of tadpoles in Park Corner garden
pond. SU692885 (CS)
23/9/13 Toadlet in Cholsey vegetable patch.
(TR)
27/9/13 Toadlet in Cholsey meadow (TR)
7/10/13 Small toad in Cholsey garden (TR)
2/11/13 Three juveniles at Hosehill LNR
SU648694 (JL)

***Triturus vulgaris* Smooth Newt**

Feb/Mar 108 adults carried across road at

Hambledon (JS/AP)

14/2/13 & 16/2/13 One in Cholsey pond (TR)
4/13 Ten adults in Park Corner garden pond SU692885 (CS)

7/5/13 10 adults in copse pond on west edge of Didcot SU510897 (Rd/A)

7/8/13 One at Brookfield School, Tilehurst SU662754 (JL)

***Triturus helveticus* Palmate Newt**

11/4/13 & 14/5/13 Two adults caught at Chapel Lane Pond, Nettlebed Common, SU703869 (Rd/A)

11/4/13 to 29/5/13 Seven adults seen in Didcot garden SU521895 (Rd/A)

7/5/13 Thirteen adults in temporary pond in Sulham Wood SU650747 (Rd/A)

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

End March to early June 432 adults seen or caught, with a maximum of 81 in Education Pond, Sutton Courtenay EEC SU501918 (Rd/A)

End March to late August 230 adults seen or caught in Newt Pond, Sutton Courtenay EEC SU501917 (Rd/A)

23/3/13 to 10/5/13 Total of 44 adults seen at Little Wittenham NR SU567934 (Rd/A)

5/13 Total of seven adults seen in Nettlebed Common ponds SU703870 (EL)

7/13 Two adults in Park Corner garden pond SU692885 (CS)

***Rana temporaria* Common Frog**

Feb/Mar 114 adults carried across road at Hambledon (JS/AP)

11/1/13 One on Tilehurst garden patio, came out too early, perished SU666742 (JH)

7/3/13 Frogspawn (70+ balls) in Westwood Rd, Tilehurst garden (JH)

26/3/13 A square metre of spawn in Brookfield School pond SU662753 (JL)

11/4/13 Numerous adults and spawn at 7 Nettlebed Common ponds SU7087 (Rd/A)

21/4/13 Spawn of 10 females in Sonning Common garden pond SU706803 (Rd/A)

3/5/13 & 23/7/13 Adult in Cholsey garden pond (TR)

7/7/13 An adult at Clayfield Copse SU726771 (JL)

20/8/13 25 juveniles at Furze Hill, Hermitage SU542741 (JL)

21/8/13 Several frogs on Nettlebed Common (SH)

31/10/13 Froglet by Cholsey garden pond (TR)

31/10/13 Two at Moor Copse SU637742 (JH)

REPTILES

***Lacerta vivipara* Common Lizard**

2/5/13 to 25/10/13 150 sightings at Cholsey in this period with a max. of 13 on 4/10/13.

Down on 2012 but no counts attempted until 2/5/13. Predation by raptors may account for the downturn. (TR)

3/13 to 10/13 39 sightings at Greenham & Crookham Commons (Rd/A & MB)

27/5/13 One adult at Decoy Heath SU611633 (JL)

23/8/13 Three at Paices Wood Country Park SU584638 (JL)

15/10/13 One at Raghill Farm, Padworth SU614646 (JH)

***Anguis fragilis* Slow-worm**

9/1/13 to 29/10/13 A total of 1,555 sightings from just 31 daily counts at Cholsey

site. The maximum count of 115 on 17/4/13 was an all-time record, followed by 112 on 4/5/13 and 107 on 4/10/13. An ever-expanding population (TR)

3/13 to 10/13 953 sightings at Greenham & Crookham Commons (Rd/A & MB)

14/5/13 to 13/10/13 Total of 157 sightings in Didcot garden. Few young seen and not until September. SU521895 (Rd/A)

19/4/13 Adult in compost heap in Tilehurst garden SU666742 (JH)

11/5/13 3 at Bowdown Woods (FT)

15/5/13 One at Old Elvendon Wood SU632812 (Rd/A)

1/6/13 Nine incl. seven juveniles at Decoy Heath (JL)

14/6/13 Five under garden refuge in Tilehurst SU665743 (JL)

28/6/13 Five under refuge at Woolley Firs SU852799 (JL)

15/10/13 One at Raghill Farm, Padworth SU614646 (JH)

***Natrix natrix* Grass Snake**

17/4/13 to 22/10/13 a total of 93 sightings with a maximum of 13 on 4/5/13 at Cholsey site. Sightings mainly late season. (TR)

1/6/13 Five incl three immature at Decoy Heath (JL)

21/6/13 One at Pingewood SU692708 (GC)

25/7/13 Adult tangled in netting at Streatley allotment SU59810 (TW)

4/8/13 One adult at Hosehill LNR SU648694 (JL)

29/9/13 Adult swimming along drainage ditch at The Lees, Cholsey SU574863 (TR)

3/13 to 10/13 Total of 99 sightings from Greenham and Crookham Commons (Rd/A & MB)

***Vipera berus* Adder**

2/3/13 to 12/10/13 surveys produced 128 sightings from 6 areas of Greenham and Crookham Commons. (Rd/A & MB)

7/4/13 Three adults at Decoy Heath
SU611634 (JL)

7/5/13 Adult female at Warburg Reserve.
(The last mature adder left on site? – oh dear) SU718879 (EL)

1/6/13 Two adult females at Decoy Heath
SU611634 (JL)

Unconfirmed reports from Maidensgrove Common; Russels Water Common and near Frilford. Further records appreciated. (ARG)

BATS***Pipistrellus pipistrellus* Common Pipistrelle**

11/7/13 & 21/7/13 & 11/8/13 & 8/10/13 Good numbers flying around Cholsey garden (TR)

***Pipistrellus pygmaeus* Soprano Pipistrelle**
3/8/13 at Hosehill SU650698 (GS)***Pipistrelle* sp.**

11/4/13 One at Sea Pond, Nettlebed Common (Rd/A)

31/5/13 Adult over Didcot garden SU521895 (Rd/A)

***Myotis daubentonii* Daubenton's**

3/8/13 at Hosehill SU650698 (GS)
Adults feeding over Little Wittenham ponds (Rd/A)

***Nyctalus noctula* Noctule**

3/8/13 at Hosehill SU650698 (GS)

INSECTIVORES***Erinaceus europaeus* Hedgehog (there must have been more sightings than this!)**

In 2013, minimum of 6 sightings of large adults and juveniles in Didcot garden
SU521895 (Rd/A)

3/7/13 Road kill at Calcot SU663724 (JL)

6/7/13 One at Gallowstree Common
SU690802 (GC)

12/11/13 One juvenile - a road kill in a quiet estate road in Cholsey. SU592866 (RR)

***Sorex araneus* Common Shrew**

9/1/13 to 18/10/13 Total of 18 sightings at Cholsey site (TR)

30/3/13 Three under refuges at Hosehill LNR
SU648694 (JL)

4/4/13 One under refuge at Paices Hill

SU584636 (JL)

17/5/13 Adult and young at North Farm, Shillingford SU576924 (Rd/A)

***Talpa europaea* Mole**

16/1/13 Fresh mole hills beside Pang at Moor Copse SU635740 (JH)

6/8/13 2 road kills at Brightwalton SU424792 (JL)

2/12/13 Approx 30 hills at Furze Hill, Hermitage SU511742 (JL)

CARNIVORES***Meles meles* Badger**

15/2/13 Road kill by Highwayman SU655821 (TR/RR)

18/2/13 Road kill near Caps Lane, Cholsey (TR/EN)

27/2/13 Road kill at Hare Hatch SU806780 (JL)

2/8/13 Road kill at Theale SU640708 (JL)

13/8/13 One at Tilehurst SU659736 (JL)

3/9/13 One at Pingewood SU690699 (GC)

2/11/13 Latrine at Barton's Field, Moor Copse (JH)

1&4/11/13 2 road kills at Cholsey SU603880 (TR/RR)

***Mustela nivalis* Weasel**

24/12/12 One crossing road near Black Boy, Hurley SU809829 (TR)

8/8/13 One at Fobney Island SU698712 (JL)

***Mustela erminea* Stoat**

7/5/13 One at Weston SU402736 (JL)

28/7/13 Adult at Sutton Courtenay EEC
SU501918 (Rd/A)

***Mustela putorius* sp Polecat/Ferret**

31/1/13 Road kill at Upton SU513865 (JL)

3/6/13 Road kill at Lambourn SU322783 (JL)

4/7/13 Road kill at Theale SU626700 (JL)

28/8/13 Road kill Chieveley SU481728 (JL)

***Mustela vison* American Mink**

14/4/13 at Fobney in Barn Owl nestbox SU701710 (JL/TB)

2/5/13 at Fobney in Little Owl nestbox
SU702710 (JL/TB)

12/8/13 at Fobney in Kennet Canal
SU708710 (JL)

***Vulpes vulpes* Fox**

9/1/13 One in Victoria Rd, Tilehurst at 22.30
SU668740 (JL)

20/1/13 One in snow-covered field beside

the Thames at Cholsey SU604864 (TR)
 2/3/13 One in neighbour's garden, Cholsey SU591869 (TR)
 26/4/13 One at Barefoot Copse, Tilehurst SU656744 (JH)
 1/5/13 One in stand-off with Canada Geese at Southcote Meadows SU700713 (JL)
 5/5/13 Adult beside Green Lane, Cholsey SU594877 (TR)
 24/6/13 One in Pierces Hill garden, Tilehurst SU665742 (JL)
 25/6/13 One in Reading SU707732 (GC)
 2/7/13 One in Reading SU683719 (GC)
 4/7/13 One at Lower Basildon (JH)
 19/7/13 One at Caversham SU713752 (GC)
 5/9/13 One in Tilehurst at 22.00 SU658733 (JL)
 20/12/13 Adult crossing road at Shillingford SU595927 (TR)

***Lutra lutra* Otter**

Sadly no records received.

***Rattus norvegicus* Brown Rat**

23/4/13 One at Emmer Green SU713767 (GC)
 23/6/13 One in Didcot garden SU521895 (Rd/A)
 14/9/13 One at Emmer Green SU707768 (GC)

DEER

***Muntiacus reevesi* Muntjac**

6/1/13 Two at Hermitage SU500738 (JL)
 18/2/13 One calling at mid-day at Cholsey SU594870 (TR)
 15/4/13 One at Reading Cemetery SU735732 (JH)
 27/4/13 Road kill in Tilehurst SU654745 (JL)
 28/4/13 One at Mapledurham (JW & JW)
 4/6/13 One in Cholsey meadow at 5AM (TR)
 21/6/13 One at Burghfield SU675700 (GC)
 28/6/13 One in Cholsey garden (TR)
 4/7/13 One at Lower Basildon (JH)
 9/8/13 One at Pangbourne SU629761 (JL)

***Capreolus capreolus* Roe Deer**

19/1/13 One near Cox's Farm Cholsey SU594884 (TR)
 22/1/13 One at Bow Bridge Cholsey (RR/TR)
 16/2/13 Two at Padworth Common SU617645 (JL)
 23/2/13 Two beside Westfield Road, Cholsey SU580850 (RR/TR)
 18/3/13 Seven at Rooks Nest Wood, Barkham SU789660 (JH)
 21/3/13 Three at Decoy Heath SU610634

(JL)
 28/4/13 Two at Bottom Wood Path SU656780 (JW & JW)
 1/5/13 One at Westfield Common SU654659 (GC)
 22/6/13 One at Chieveley SU485738 (GC)
 4/7/13 Two at Lower Basildon (JH)
 29/10/13 One at Highmoor SU700844 (GC)
 14/11/13 Two at Winnersh SU774701 (JL)

***Dama dama* Fallow Deer**

5/1/13 8 at Binfield Heath SU735784 (GC)
 3/4/13 3 at Binfield Heath SU744789 (GC)
 16/6/13 One at Mays Green, Harpsden SU749798 (JH)

RABBITS & HARES

***Lepus europaeus* Brown Hare**

15/1/13 Three at Winterbourne Wood SU445720 (JL)
 28/1/13 Four at Mackney SU577897 (TR)
 10/2/13 One at Swyncombe SU670903 (TR)
 25/4/13 One at Fair Cross, south of Devils Highway SU689626 (JH)
 23/5/13 Two at Hampstead Norreys SU529756 (JL)
 24/6/13 One in Cholsey field SU594867 (TR)

***Oryctolagus cuniculus* Rabbit**

28/4/13 Three at M4 Services N SU670701 (JL)
 14/5/13 Active warren at Streatley Recreation Ground SU592812 (Rd/A)
 24/5/13 Three at Tidmarsh SU637747 (JL)
 25/5/13 Two at Theale SU6470 (JL)
 29/5/13 One at Kings Meadow, Reading SU722739 (JL)
 16/6/13 Clear evidence of them at Medmenham (SR)

RODENTS

***Sciurus carolinensis* Grey Squirrel**

30/6/13 One at Scratchfield Copse, Bradfield SU580727 (JL)
 16/12/13 Two at Ashampstead SU567772 (JL)
 31/12/13 One at Lousehill Copse, Tilehurst SU684730 (JL)

***Apodemus sylvaticus* Wood Mouse**

No Cholsey records this year. *Due to increase in predation by raptors?* (TR)
 11/1/13 and others Often under bird feeders in Pierces Hill garden SU665742 (JL)
 28/12/13 Five under refuge at Hosehill SU652696 (JL)

***Microtus agrestis* Field Vole**

9/1/13 to 29/10/13 Total of 64 sightings
beneath refuges at Cholsey (TR)

19/3/13 One at Ashampstead Common
SU579751 (JL)

27/10/13 Two under refuge at Hosehill LNR
SU652697 (JL)

16/11/13 Two at Hosehill under refuge
SU652696 (JL)

***Arvicola terrestris* Water Vole**

24/2/13 Recent droppings at Moor Ditch,
Sutton Courtenay EEC SU501919 (Rd/A)

28/4/13 One in canal at Burghfield Mill
SU668709 (JL)

***Clethrionomys glareolus* Bank Vole**

18/1/13 One on bird feeder at Cholsey
(RR/TR)

3/2/13 to 29/10/13 Total of 45 sightings
beneath refuges at Cholsey (TR).

30/6/13 One at Scratchfield Copse, Bradfield
under refuge SU580727 (JL)

Contributors – **MB** Martin Burdock; **TB** T Ball; **EL** Etienne Littlefair; **JC** Julia Cooper; **GC** Gordon Crutchfield; **ID** Ian Duddle; **Rd/A** Rod d'Ayala; **ARG** Adder Recording Group; **JH** Jan Haseler; **SH** Sheelagh Hill; **MK** Mary Kjeldsen; **JL** John Lerpeniere; **CM** Cliff Marriott; **EN** Ted Nelson; **AP** Alan Parfitt; **RR** Ro Rayner; **RRI** Renton Righelato; **TR** Tony Rayner; **SR** Sally Rankin; **CS** Chris Stafford; **GS** Graham Saunders; **JS** John Sumpter; **MS** Martin Sell; **FT** Fred Taylor; **JW** Janet Welsh; **JeW** Jerry Welsh.

THE WEATHER IN READING DURING 2013

Roger Brugge

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(Averages and anomalies mentioned in this report refer to the climatological period 1981-2010.)

(Temperatures are formatted as °C, temperature differences are formatted as degC)

2013 began with six colder-than-average months and some unusually cold days in some of these months; then came a very warm and sunny July and some stormy conditions in October and, more frequently, in December. Overall the year was cool (the average temperature of 10.2 °C was the lowest since 2010) with rainfall and sunshine totals being almost average for the year overall.

January

January was the first of six consecutive colder-than-average months. Although the air temperature did not drop below -5 °C, the lowest temperature at grass tip level was -11 °C (and similarly cold nights were to occur in the next three months). Snow or sleet fell on 9 days, with a 50% or greater snow cover on 8 mornings at 0900 GMT; this latter value was the most for any month since December 2010. January was dull with only half the normal sunshine amount – there were 22 sunless days which was more than in any other month since our continuous sunshine records began in 1957.

February

February was the coldest month of the year – but only marginally colder than March – and it was also the coldest February since 1996. Both rainfall and sunshine totals were slightly less than normal; snow fell on 7 days although falls were mostly light. The low daytime temperatures were, in part, due to cold N'ly and NE'ly winds under cloudy skies.

March

Average temperatures during March were almost 4 degC below normal, making it the joint coldest March in the town since 1963. Winds during March were mainly from an easterly direction as high pressure remained firmly located to the north of the UK. With western parts of continental Europe being colder-than-average in February this meant cold conditions across Scandinavia persisted for longer than usual there – and our air in March then came from this cold direction. As late as the 23rd to 25th the daily maximum temperatures could only rise to 1.0 °C or 1.1 °C; in 106 years of temperature records at the University these were the coldest winter/spring days ever recorded after mid-March. Earlier in the month (on the 11th) the maximum temperature was just 0.9°C – the second coldest March day in the last 50 years at the University. March was another dull month with 15 sunless days – the most on record for March – and also the wettest March for twelve years.

April

The average temperature in April was 1 degC below normal in Reading, making it the coldest April since 1989. More than half the days in the month had a ground frost and -3.4 °C on 7th made this the fourth coldest April night in 106 years in the town. This cold night was the fifth air frost during the first week of the month. April was also a dry and sunny month.

May

Temperatures in Reading during May averaged out at just 10.7 °C or 1.7 degC below normal, making it the coldest May at the University since 1996. Similarly cold May months have also occurred in 1984, 1983, 1979 and 1975 in the past 40 years. The highest temperature recorded this May in Reading was just 22°C on the 7th of this month and this is the first May to fail to reach 23°C since 1994. Sunshine and rainfall totals for May were very close to the normal. May 2013 will be remembered for the cold weather that seemed to prevail on and off long into the month. The maximum temperature on the 24th was just 8.9 °C, making this the coldest day since 26 May 1962 to have occurred during the final 10 days of May. One of the reasons for the low temperatures was a higher than normal frequency of northerly winds. Overall spring 2013 was the coldest in Reading since 1962.

June

June was another cold month; it was as cold as in 2012 and otherwise the coldest June since 1991. By the end of the month no day had reached 25 °C – the first time this has happened also since 1991. A ground frost occurred on 5 mornings. While the sunshine duration was slightly less than average, June was a very dry month; with just 21 mm of rainfall, it was the driest June for three years.

July

Summery conditions finally arrived in July with 30.2 °C being attained on the 13th and 31.5 °C on the 22nd, the latter being the highest temperature in Reading since 2006. By the end of the month the temperature had averaged 2.0 degC above normal, making it the warmest July since 2006. There were also some warm and humid nights during the month – overnight 22nd/23rd the temperature did not fall below 17.6 °C in Reading.

This warmth was caused by prolonged sunshine with the University recording its third sunniest month in July since sunshine records began in 1956. A total of 297.6 hours of bright sunshine was measured with the station's Campbell-Stokes sunshine recorder – only a few hours less than were recorded in July 1959 (298.2 hours) and June 1975 (305.6 hours). During the peak of the sunny conditions there were 15 consecutive days (from the 5th to the 19th) with over 9 hours of sunshine – the longest such spell in July on record. In addition, from the 7th to the 13th every day had over 12 hours of sunshine – this has only been bettered (by longer such spells) in any summer month on three occasions since 1956.

After 1.8 mm of rain on the 2nd, the rain gauge at the University of Reading remained dry (apart from some light spots of rain during thundery weather on the 23rd) until the 24th – this was the longest period of summer drought at the weather station since August 1995.

August

The highest temperature of the year occurred on the 1st when 32 °C was reached. Conditions in August continued the dry theme – just 20.8 mm of rain fell in Reading, the driest August since 2003 (when 14.2 mm fell).

The average August temperature was 0.6 degC above normal although, apart from on the 1st, the temperatures during August were never that far away from the norm. August was the warmest since 2004 – but this was more a reflection of the lack of hot Augusts in recent years than in any prolonged heatwave this month. 224 hours of bright sunshine in August made it the sunniest August since 2005.

As for the summer overall, just 76.7 mm of rain fell – the driest summer since 2006.

September

September was a dull month, and slightly cooler than normal. Almost half the month's rain fell on the 13th – one of the wettest days of the year with a fall of 24 mm. The first five days were warm, then summer ended and the month had 3 ground frosts and 2 foggy mornings before the month closed.

October

October was mild and slightly on the wet side with frequent falls of rain. The 4th was the second mildest October night in the 106-year Reading record with the temperature falling no lower than 16.5 °C – making it one of the warmest nights of 2013. In recent years only 2005 and 2006 have been milder October months. There were three days with thunder this month – a total that has not been exceeded in October in the past century. A much-heralded storm on the 28th brought down some trees locally during the morning as winds gusted to 55 mph in Reading.

November

Cooler-than-average conditions returned this month, which was the coolest November for three years. There were only 3 air frosts but a ground frost occurred on 19 mornings. Towards the end of the month pressure rose and several dull days with NW'ly winds occurred. For the second consecutive autumn month there were no fogs recorded at Reading.

December

The year ended with a mild and, at times, wet and stormy, December. In particular there was no

snowfall and only 5 mornings with air frost. Windy conditions led to gusts of 46 mph on the 5th (associated with conditions that produced to a storm surge in the North Sea), 60 mph on the 23rd and 76 mph on the 24th (a very deep depression close to The Hebrides resulted in wind damage, pre-Christmas travel disruption and Christmas power cuts around Reading) and 52 mph on the 27th. The 23rd was the wettest December day since 1995. December was the wettest month of the year in Reading, albeit drier than December 2012.

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.

		J	F	M	A	M	J	J	A	S	O	N	D	2013
Mean maximum temperature	°C	6.1	6.2	6.3	12.6	15.3	18.9	25.6	23.1	18.8	16.2	9.8	9.9	14.1
Mean maximum anomaly	degC	-1.6	-1.8	-4.5	-0.9	-1.7	-1.1	3.2	1.0	-0.2	1.3	-0.9	2.0	-0.4
Mean minimum temperature	°C	1.7	0.4	0.4	3.7	6.1	9.8	13.4	12.7	9.9	9.8	3.8	2.9	6.3
Mean minimum anomaly	degC	-0.2	-1.3	-3.1	-1.0	-1.6	-0.8	0.7	0.2	-0.4	2.2	-0.6	0.7	-0.4
Mean temperature	°C	3.9	3.3	3.4	8.2	10.7	14.4	19.5	17.9	14.4	13.0	6.8	6.4	10.2
Mean temperature anomaly	degC	-0.9	-1.6	-3.8	-1.0	-1.7	-1.0	2.0	0.6	-0.3	1.8	-0.8	1.4	-0.4
Highest temperature	°C	13.4	10.5	15.8	20.6	22.0	24.3	31.5	32.0	28.0	21.3	15.0	13.0	32.0
Date		29.0	16.0	5.0	25.0	7.0	30.0	22.0	1.0	5.0	2.0	6.0	16.0	
Lowest maximum temperature	°C	-1.1	1.7	0.9	3.5	8.9	15.4	16.5	18.6	13.7	11.0	5.5	6.3	-1.1
Date		16.0	12.0	11.0	4.0	24.0	10.0	2.0	24.0	14.0	13.14	19.0	25.0	
Highest minimum temperature	°C	8.7	4.0	7.5	10.1	12.1	16.5	17.6	16.6	14.0	16.5	10.2	7.8	17.6
Date		4.0	4.0	8.0	25.0	21.0	20.0	23.0	1.0	22.0	4.0	1.0	16.0	
Lowest temperature	°C	-4.9	-3.5	-4.7	-3.4	1.2	4.5	9.0	8.7	5.0	2.7	-2.5	-1.6	-4.9
Date		22.0	19.0	3.0	7.0	16.0	10.0	2.0	8.0	8.0	30.0	20.0	12.0	
Lowest grass minimum temperature	°C	-11.0	-10.2	-11.9	-11.2	-6.0	-2.6	2.8	2.1	-2.0	-2.2	-8.0	-6.4	-11.9
Date		16.0	19.0	31.0	7.0	1.0	10.0	6.0	19.0	8.0	16.0	20.0	5.0	

		J	F	M	A	M	J	J	A	S	O	N	D	2013
Total precipitation	mm	54.6	38.3	76.3	39.8	50.1	21.0	34.9	20.8	50.2	92.8	52.3	106.0	637.1
Percentage of the average precipitation	%	90	94	172	83	108	47	76	40	100	129	79	168	100
Number days with 0.2mm or more	days	18	11	13	11	15	10	6	9	12	19	11	20	155
Number of days with 1.0mm or more	days	12	6	11	8	11	7	5	6	5	16	10	15	112
Greatest fall in 24 hours	mm	8.2	16.7	14.4	15.5	10.3	5.0	15.1	5.9	24.0	22.8	17.0	29.0	29.0
Date		31	10	8	10	28	15	29	5	13	27	3	23	
Number of days with air frost	days	14	12	16	7	0	0	0	0	0	0	3	5	57
Number of days with ground frost	days	22	21	20	17	13	5	0	0	3	4	19	22	146
Number of days with snow/sleet falling	days	9	7	11	2	0	0	0	0	0	0	0	0	29
Number of days with 50% ground snow cover at 0900GMT	days	8	1	0	0	0	0	0	0	0	0	0	0	9
Number of days with thunder	days	0	0	0	0	0	0	5	0	0	3	0	0	8
Number of days with ice pellets/small hail	days	0	0	1	1	0	0	0	0	0	0	2	0	4
Number of days with hail over 5mm diameter	days	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of days with fog at 0900GMT	days	2	2	3	0	0	0	0	0	2	0	0	3	12

		J	F	M	A	M	J	J	A	S	O	N	D	2013
Total sunshine	h	29.7	64.9	64.4	177.0	187.0	173.9	297.6	224.2	110.9	98.3	67.8	38.7	1534.4
Percentage of average sunshine	%	53	84	58	110	99	92	151	117	80	92	107	84	101
Greatest daily sunshine total	h	5.7	8.2	8.7	12.7	13.7	13.2	14.1	13.4	11.1	8.9	6.6	5.1	14.1
Date		30	19	5	23	2	1	9	1	4	6	4	29	
Number of sunless days	days	22	11	15	3	2	1	1	0	5	4	8	14	86
Mean 10cm soil temperature	°C	3.7	2.2	2.7	7.4	11.5	15.2	20.1	17.8	14.0	11.9	5.8	4.8	9.8
Mean 30cm soil temperature	°C	5.6	4.6	4.9	7.8	11.3	14.3	18.4	17.9	15.5	13.7	8.9	6.9	10.9
Mean 100cm soil temperature	°C	7.2	6.2	6.0	7.3	10.5	12.7	15.6	16.6	15.6	14.3	11.2	8.7	11.0

		J	F	M	A	M	J	J	A	S	O	N	D	2013
Number of days with gale	days	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of days with N'ly winds	days	2	7	2	2	6	4	3	4	2	2	5	0	39
Number of days with NE'ly winds	days	7	3	11	6	2	9	7	4	3	1	1	2	56
Number of days with E'ly winds	days	3	4	12	4	4	2	6	1	8	7	1	3	55
Number of days with SE'ly winds	days	1	3	0	2	0	1	3	2	0	2	0	1	15
Number of days with S'ly winds	days	3	0	3	5	0	0	5	6	4	3	3	11	43
Number of days with SW'ly winds	days	5	3	0	5	5	7	2	7	5	9	5	9	62
Number of days with W'ly winds	days	8	5	1	3	8	5	3	5	5	5	9	4	61
Number of days with NW'ly winds	days	0	1	2	3	6	2	2	2	3	2	6	0	29
Number of days with calm winds at 0900GMT	days	2	2	0	0	0	0	0	0	0	0	0	1	5
Mean wind speed	mph	5.8	5.8	7.5	8.2	6.9	7.3	6.2	6.6	5.0	6.9	4.8	6.8	6.5
Mean cloud cover at 0900GMT	%	86	83	79	79	75	76	57	77	81	75	73	81	77