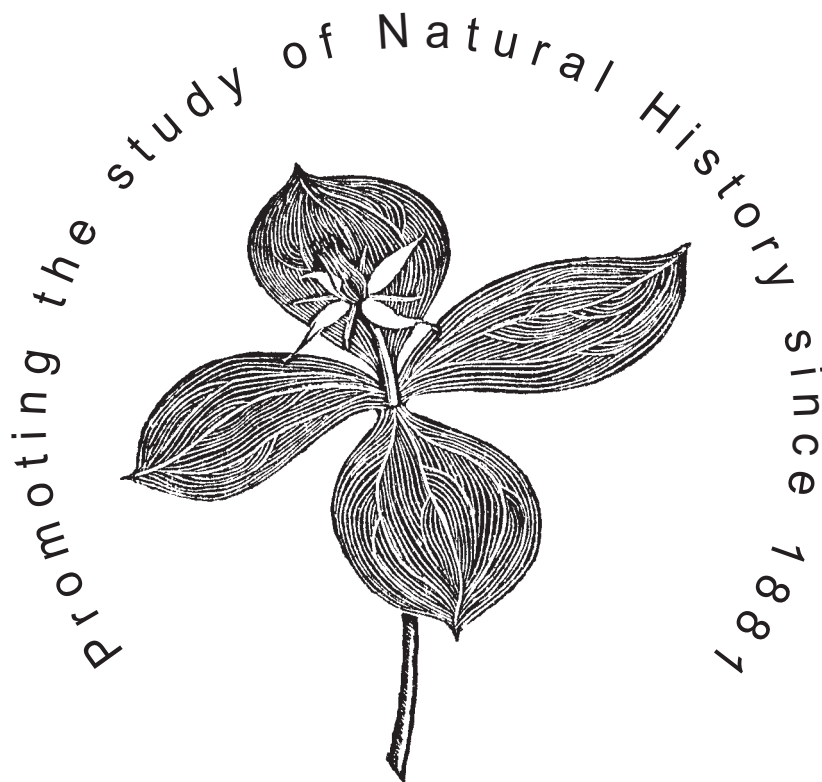


The Reading Naturalist

No. 63



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Report for 2010

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THE READING NATURALIST

No 63 for the year 2010

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

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Welcome to another bumper issue! 2010 had interesting weather and despite this (or perhaps because of it), our Recorders have been able to publish good lists of records. A big "well done" to the membership for making this possible - don't forget to keep it up in 2011!

Malcolm Storey (Hon. Editor)

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CORRECTION

Winifred Muir Wood

In August I received a very nice email from Winifred's son, Dr Paul Muir Wood, pointing out some inaccuracies and omissions in the obituary for his mother. (Reading Naturalist No 62).

She was born in 1921.

She only obtained her doctorate in 1968, at the age of 47.

After graduating she worked at the Admiralty Physical Laboratory at Teddington (1943-47).

She learnt how to read mathematical papers in Japanese, but never worked for GCHQ or as a cipher expert. (He said: I'm quite sure that there was no secret life which she never told her family about!)

I apologise to Dr Muir Wood and to the family for these errors and any embarrassment caused.

OBITUARIES

Betty Newman

Betty was born in Basingstoke. Her father Percy was a cabinet maker and funeral director. Her mother was Mabel and she had one sister, Eileen.

Betty did well at school and was accepted by London University. Sadly her mother, who was a strong character in Betty's life, didn't want her to go to London and insisted that she study at Southampton, (at that time a branch of London University). It was here she met her husband-to-be James (known as Jim) who like her was also studying zoology and working as a lab technician to "pay his way".

Betty initially went into teaching as a biology specialist but during the Second World War she found herself also teaching maths and spending time in schools in Yorkshire and Lancashire.

During the War Jim was sent to Sardinia, to help with the eradication of malarial mosquitoes there, and later to Burma. At the end of the War it took some time for him to be able to return home, and as jobs were scarce Betty started looking for jobs for him. She sent an application to ICI and on the strength of that application, Jim was invited for interview- somehow he managed to get home in time to attend it and was offered the job!

They married in 1946 and ICI sent them to Scotland to work on a project there. Betty had fond memories of the two of them learning Scottish dancing in a local village hall.

They returned South in time for their son John to be born in Basingstoke in December 1947. Jim started work at ICI, based at Jealot's Hill. Betty stayed at home to look after their new baby. Their first house was in Eversley and then they moved to the house in Beech Lane, Earley in 1956.

When John was older, Betty returned to work, initially in a school in Basingstoke. Then she applied for and was appointed to the post of Head of Biology at Kendrick Grammar School where she worked until she retired.

Outside work Betty was interested in photography, playing the piano, watercolour painting, cooking (particularly baking cakes), gardening, stamp collecting and natural history.

Betty joined the Society in 1960. Her husband, Jim (President 1961-2), was already a member. She was Hon. Gen. Sec. from 1964-66 and Botany Recorder from 1962-99. Betty became an Honorary Member in 1995.

June Housden recalls taking the accounts to Jim for auditing (he was Hon. Auditor from 1992-5). These most enjoyable visits gave her the opportunity to appreciate Betty's home-baking and admire her paintings.

Betty was also interested in Plant Galls and a member of the British Plant Gall Society.

Betty and Jim developed a very beautiful garden at Beech Lane, which featured plants from many parts of the world, particularly reflecting their joint affection for Australia and her interest in more unusual plants.

Betty and Jim had intended to do a lot of travelling once Jim retired. They re-visited Australia, watched an eclipse of the sun in Hawaii and went on some Mediterranean Cruises. Sadly, Jim developed Parkinson's disease and their travelling was curtailed earlier than planned. Betty cared for him selflessly until his death.

Betty was a very courageous and determined lady gaining respect and affection from those who knew her and those who cared for her in later years.

Ken Grinstead

Ken was born in Lynmouth in North Devon in 1923, but his family soon moved to Lynton where he went to school. After he won a scholarship to Barnstaple Grammar School, it became necessary for him to make a daily trip on the Lynton & Barnstaple Railway which saw the beginning of a lifelong interest in railways (though the family soon moved to Barnstaple to be nearer to his school). He saw service in the Royal Signals and was in France at the very end of World War II. The highlight of his time back in England appears to have been involvement with the erection of a new radio mast on the Great Tower of Windsor Castle.

From the late 1940s he lived in Salisbury and worked for the Ministry of Defence at the Microbiological Research Establishment (MRE) at Porton Down. His lifelong interest in natural history developed there and very soon, with other Porton scientists, he joined the Salisbury Field Club, which covered both natural history and archaeology. He served as Meetings Secretary of the Field Club, had a special interest in orchids, and made a particular study of dragonflies, for which he was considered to be the local expert. In 1958, the archaeological work of the Field Club was transferred to the Salisbury Museum, and soon after this the Field Club became the Salisbury & District Natural History Society. Ken now became fully involved in the activities of the Museum where his photographic skills were freely given and of immense value. He made superb photographic records of archaeological excavations and fieldwork and recorded rural industries such as brick-making that were then dying out. When Ken left Salisbury, the Museum made him an honorary life member, a rare honour which he thoroughly deserved. Recently, in his eighties, he produced a most useful catalogue for the Museum of nearly 4000 slides, many of which were his own work.

In 1979 MRE was privatised and Ken, who wanted to stay with the Ministry of Defence, was moved to Aldermaston. Earlier that year he had met Margaret in Crete and very soon they were married. They set up home in Baughurst in a successful marriage that was to last for thirty years. Ken had not only found a loving partner, but had also acquired a grown-up family.

Ken and Margaret joined the Reading & District Natural History Society where Ken served on the committee for three years (1991-1994). He edited seven editions (1994-2000) of our annual publication, *The Reading Naturalist*, and for many years was responsible for the bi-annual programme cards. He gave numerous talks illustrated with his own excellent slides.

Ken was fortunate in always having plenty to do. Apart from natural history, he and Margaret had many interests in common, among them gardens, buildings, railways and cooking. Then there was an extended family to visit, including five children who called Ken granddad and he was not one to lose contact with old friends in Salisbury and in Devon. He and Margaret visited preserved railways across England and Wales, and supported many of the railway trusts. In recent years this included the Lynton and Barnstaple line which Ken had used in his schooldays, a short section of which has now been reopened. They were volunteers on the Alton to Arlesford Railway, the Watercress Line. Here, Ken, typically, used his photographic skills to produce many photographs for the Railway's newsletter and publicity.

Ken was a perfectionist with a meticulous approach to all things, someone who always wanted to get everything he did exactly right. Sadly things became much more difficult as his sight and his breathing got worse - and as computers got steadily more complicated. Despite these frustrations Ken remained active until the end of his days.

At the end of March 2010, he slipped and fell from the steps of a signal box on the Watercress Line, which he had climbed to get a slightly better angle for a photograph for the Railway's newsletter. He fractured his hip, which was quickly and successfully repaired, but sadly it was an accident from which he did not have the strength to recover.

We will remember Ken as a keen supporter of the Society over many years, during which time he helped us in many ways, always to the best of his considerable ability. He was a quiet and unassuming man, who will be remembered for his excellent photography and his remarkable memory for plants, insects and fungi. He was interested in all aspects of natural history and his presence at our meetings will be greatly missed.

PRESIDENTIAL RAMBLINGS

Graham Saunders

This has been quite a memorable year! We started with three excellent talks on single species – eels, swifts and glow-worms. How do adult eels swim back across the Atlantic at depths of down to 600 metres and how is it nobody has seen them mate? (Maybe the society should mount an expedition to the Sargasso Sea to find out!) Swifts never land except to nest, and female glow-worms spend their lives within a few metres of where they hatched. Amazing!

There were some wonderful walks and Martin Sell's tour around the Woolhampton gravel pits with the Barn Owl quartering a field, finding a small mammal, then being robbed by a Kestrel. Who's ever seen that before? And the two Yellow Wagtails were the prettiest birds you were ever likely to meet. The water vole at Hungerford Marsh, the unusual field plants at College Lake and the uplifting experience of the farm in Micheldever with conservation margins harbouring almost lost species, like Ground Pine which was thriving. There was such a varied programme of meetings and walks and thanks to all the leaders.

We also had a year in which we presented wildlife to the general public with six days of activities at Basildon House. We were fortunate to gain an OPAL grant from the Natural History Museum with which we bought £3600 worth of equipment, mainly to use during our activities week, but it is now the society's to keep and is available for use by members. The equipment, such as butterfly nets, will be brought along to walks, but any member who wishes to use any of it is most welcome to do so.

I write this during the upheavals in Egypt. I visited Egypt in December and took a coach trip from Cairo to Luxor to see some pyramids, painted rock tombs and Amarna among other sites. I thought after my talk on Ancient Medicine, I would search out some of the plants that were written into the medical papyri. Foolish boy! Every square inch of land by the Nile which can be irrigated is cultivated, animals are put on the land after cropping and even the irrigation channels are scavenged by dogs, chickens and ducks. All other land is desert. We are fortunate in England to have wild places where wild things grow and long may we be able to preserve them. For botany geeks, there is an excellent collection in the Cairo Agricultural Museum of ancient plant material including garlands, spices and food (eg dates) found in tombs.

The other noticeable trend is the huge expansion in building with tower blocks rising out of the desert. New roads and building are spreading to archaeological sites, such as Giza near the great pyramids and most noticeably at Amarna. This is the site of the heretic pharaoh Akhenaten who started a monotheistic religion 1300 years before Christianity and built a huge city for his god and people, including the largest temple in the world. This is now being encroached by fields and is almost cut in two by the expansion of the local town. People have to eat and live somewhere. And, of course, the same pressures are on our countryside, just one example being the proposed high speed rail link from London to Birmingham and beyond.

There are some slight compensations for our ever increasing housing demands. You may have read a few articles in the press recently about the richness of gardens for wildlife. I agree with them. The average garden must contain 100 plus different plant species that will flower from January to December. This is 99 more species than you get in a monoculture field of a cash crop, such as wheat. You can almost hear the insects munching the leaves and you can certainly see and hear the buzzing of the insects taking advantage of the rich pollen and nectar in the flowers and the singing of the birds, no doubt happy because of all the insects to eat! We also religiously put out thousands of tonnes of bird feed on cold wintry days which must keep millions of birds from starving. I can look out at 20 birds feeding in my garden, then go for a walk in the woods and hardly see one.

So here's looking forward to a great 130th year! Every talk I go to I learn something new, every walk I go on, I see something new, unusual or unexpected. So much to learn and do! There are marvellous things out there just waiting for us to discover them!

MEMBERSHIP

Norman Hall

The following members joined the society in 2010:

Chris Ash, Caversham
Dr Monica Ashton, Reading
William Balmont, Emmer Green
Laura Daniells, Chalkhouse Green
David Fuller, Maidenhead
Arnold Grayson, Wallingford
Ish Hazari, Woodley
Sheelagh Hill, Binfield Heath
Louise Knight, Reading
Dorothy Marshall, Pangbourne

Tony Mundell, Church Crookham, Fleet
Katie Noel, Goring
Tony Otto, Chalkhouse Green
John Postlethwaite, Pangbourne.
Christine Scott, Sulhampstead
Jane Sellwood, Three Mile Cross
Rob Stallard, Tilehurst
Karen Sutcliffe-Braithwaite, Reading
Teresa Verney-Brookes, Reading (Rejoining)
Ray Winger, Pangbourne

MEMBERS' OBSERVATIONS

Ricki Bull

- 19th Jan Alice Ayers reported Reed Buntings 2-3 weeks earlier than usual (mid-December rather than January), and Foxes caching food in her garden
Jan Haseler had found 9 Mottled Umber moths, 19 Winter Moths floating in a pond at Shepperlands Copse, Finchampstead.
Chris Bucke had seen the plume moth, *Emmelinea monodactyla*, on the 18th Jan.
Martin Sell's garden had Goldcrests and 2 pairs of Bullfinches. The highlight of the Wildfowl duck count at Theale last weekend was 366 shoveler
Graham Saunders had seen 4 Bullfinches in his garden during snow
Renée Grayer had also seen Bullfinches in her garden, eating *Kerria* buds.
Heather Baker mentioned a pair of Blackcaps in her garden eating from suet balls
Tony Rayner had a Yellowhammer at a feeding station
Judy Sell had seen colour-ringed Blackcaps in Reading (rings from Devon but birds from SE Germany or Austria – these winter in Britain)
Meryl Beek had had four Redwings in her garden
Gordon Crutchfield had also had Redwings in his garden
- 2nd Feb Chris Bucke had seen a female Blackbird collecting nest material Friday 29th January
Martin Sell has had male Blackcap every day in the garden for the past three weeks
Alice Ayers reported male and female Blackcaps in her garden
Tony Rayner had seen Redpolls on the nyjer seed feeder in his garden every day last week and had seen Marsh Harrier and Willow Tit at Withymead
Dot Lincoln reported a Bullfinch in the garden all day on one day during the snow.
- 16th Feb Tony Rayner has had Lesser Redpolls in the garden since Jan 27th, their numbers increasing daily to 11.
Dot Lincoln reported a male Bullfinch in her garden
Pat Martin still has 2 Blackcaps in her garden. They arrived in mid-December. Earlier today she saw 2 Bramblings in Englefield.
Renée Grayer had 2 Blackcaps in her garden today
Brian Shore has been ringing Redpolls at Withymead, with 18 on one occasion; he also saw Goldcrests feeding on University campus today.
- 2nd Mar Chris Bucke had seen a Red Admiral in his garden on 1st and 2nd of March
June Housden had heard 2 male Greater Spotted Woodpeckers drumming – one on a tree, one on the cover of the top of a street light!
Colin Dibb has seen no Frogs in his garden pond
Jan Haseler had Frogs in her pond on Thursday and Friday.
Graham Saunders had 4 Palmate Newts in his pond and saw Lesser Redpolls in Tadley
Tony Rayner spotted a Fox with a chicken! The Redpolls were still in his garden.

- Alan Strachan had seen 15 Goosanders at Sutton Courtenay
 Roger Frankum reported a Siskin
 Martin Sell compared Willow and Marsh Tits. He had seen 8 pairs of colour-ringed Willow Tits, 400 Siskins and Redpolls at Bottom Lane.
 John Lerpiniere had seen 3 Adders on Decoy Heath, and a Brimstone and bumblebee in Tilehurst
 Renée Grayer had also seen bumblebees in her garden in Earley and Whitlow Grass was already in flower.
 Ricki Bull heard a Tawny Owl calling in/over her garden Friday evening.
- 16th Mar Chris Bucke had spotted a Brimstone butterfly in the Abbey Ruins
 Grahame Hawker had seen Frogspawn and a Brimstone butterfly.
 John Lerpiniere also reported Frogspawn at Paice's Wood and a Brimstone in Tilehurst yesterday
- 5th Oct Tony Rayner had seen 9 Grey Partridges, 9 Jays and 8 Buzzards today, and a Cowslip in flower a week ago.
 Martin Sell reported 2 pairs of Bullfinches in his garden, one pair raised one brood, the other bred twice – 8-plus juveniles.
 Dot Lincoln had House Sparrows with young in her garden – up to 16 birds
 A week ago, Chris Bucke watched a Sparrowhawk chasing a Green Woodpecker.
 He's seen very few large butterflies this year
 Michael Keith-Lucas was lucky enough to have had 10 stag beetles in this garden.
 On the Society walk on 15th September, Fred Taylor had noticed House Martins nesting in Hurley. He'd recently seen Silver-washed Fritillary still flying in Pembrokeshire.
 Jan Haseler reported Silver-washed Fritillary new to her garden, and Small Tortoiseshell flying today in Burghfield.
 Valerie Newman watched a Grass Snake swimming a fortnight ago
 Maureen Baggeley reported *Forsythia* in bloom this week.
- 19th Oct Tony Rayner summarised the results of the Cholsey reptile count. He'd recently seen a Red Admiral, Small Copper and Comma.
 Chris Bucke said it had been a good autumn for flowers – on four walks of five miles the average number of flowering species was 40. Last year there were hardly any.
 Several members reported early or unseasonal flowerings in their gardens: *Kerria japonica* (Michael Keith-Lucas), *Mahonia japonica* (Colin Dibb and Maureen Baggeley), Candytuft (Meryl Beek), *Forsythia* (Roger Frankum)
 Martin Sell has had 4 Bullfinches on feeders in his garden
 Norman Hall said the Ivy was exceptionally good at the moment.
 A Humming-bird Hawkmoth was seen on Sunday
- 2nd Nov Tony Rayner had seen Red Admiral and Comma butterflies yesterday, on the 1st.
 Chris Bucke informed us that the snowdrops currently in bloom are *Galanthus reginae-olgae* - these normally flower in autumn.
 Fred Taylor had seen a Hornets' nest still active in an allotment in Earley.
 Graham Saunders reported a bumble-bee, *Bombus pascuorum*, and 2 Great Spotted Woodpeckers together in his garden.
 Jan Haseler reported Leek Moth causing mines in leeks in her vegetable garden.
 Colin Dibb had watched Long-tailed Tits just outside his window on a willow bush
- 16th Nov Tony Rayner watched a Hedgehog outside a hall in Abingdon where he had just given a talk.
 Mr. Hazari has noticed many Hedgehogs squashed on the roads.
 This observation led to a discussion about possible causes for their decline: slug pellets, increased traffic, Badgers.
 Chris Bucke had seen a very late Small Copper on the 10th by the canal at Woolhampton
 John Postlethwaite reported a small colony of Glow-worms on the bank half-way up Pangbourne Hill. He noticed them in July.
 Rob Stallard had seen Linnets feeding on hawthorn berries in Compton on the 10th.
 Michael Keith-Lucas informed us that there were currently Waxwings in Bracknell
 Colin Dibb reported that his Sparrows have returned.

EXCURSIONS 2010

Jan Haseler

The first field trip of 2010 was on Saturday 23rd January, when Martin Sell led a joint field trip with the Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT) to Pagham Harbour in West Sussex. Brent Geese *Branta bernicla*, Wigeon *Anas penelope*, Shelduck *Tadorna tadorna*, Shoveler *Anas clypeata* and Teal *Anas crecca* were feeding in the flooded fields near the visitor centre at Sidlesham Ferry, while Redshank *Tringa tetanus*, Knot *Calidris canutus* and Pintail *Anas acuta* showed well on the creek-side mud in the harbour. Next stop was Church Norton, where the tide still had some way to come in. Prominent black under-wing markings made the Grey Plovers *Pluvialis squatarola* easily identifiable in flight. Other waders in the harbour included Dunlin *Calidris alpina*, Oystercatcher *Haematopus ostralegus* and Curlew *Numenius arquata*. Looking out over the sea from the shingle bank above the beach, it was possible with telescopes to pick out Red-breasted Mergansers *Mergus serrator* and Common Scoters *Melanitta nigra*, while a bulky dark bird was identified as a Great Northern Diver *Gavia immer*. Turnstones *Arenaria interpres* were feeding at the bottom of the beach. A small flock of Red-throated Divers *Gavia stellata* flew past out to sea while lunch was being consumed in the shelter of the sea wall at Selsey. A surprisingly close Little Egret *Egretta garzetta* flew up from a road-side garden on the drive back to Church Norton. As high tide approached, big flocks of waders flew above the harbour, including an enormous mixed flock of Lapwings *Vanellus vanellus* and Golden Plovers *Pluvialis apricaria*. Bar-tailed Godwits *Limosa lapponica* and Ringed Plovers *Charadrius hiaticula* were seen on a nearby mud-bank, while 4 Avocets *Recurvirostra avosetta* feeding on a distant channel were a satisfying end to a full day for the 15 people who had travelled down to Sussex.

On Saturday 20th February, Lesley Dunlop led a geology walk at Curridge near Newbury, at the boundary between the Reading Beds, which are about 60 million years old, and the Chalk, which is at least 20 million years older. There are numerous swallow holes at the lower edge of the Reading Beds, created when water flows through the acid sands and clays, then dissolves the alkaline chalk in the layers below. The first swallow hole was located conveniently close to the car park, next to the WI hall, where 12 members had gathered to learn more about the local geology. The trees round the edge of the swallow hole were leaning inwards, indicating that the hole had been growing within their lifetime. The clay and chalk were used in the local brickworks.

The walk started out across a grassy field. Exposed soil next to rabbit holes indicated that the field was on a sandy layer of the Reading Beds. A Muntjac Deer *Muntiacus reevesi* was disturbed by dog walkers. The path then led steeply up through the woods, where the streams, ponds and wetness underfoot were clues to the underlying clay layer of the Reading Beds. There were catkins on the Hazels *Corylus avellana* and the leaves of Primroses *Primula vulgaris* and Bluebells *Hyacinthoides non-scripta* were beginning to appear. Dotted Border moths *Agriopsis marginaria* were floating on the surface of several of the woodland pools. The track then went alongside the extensive Chieveley sand quarry workings. Sand Martin *Riparia riparia* nest holes were visible in some of the exposed faces. The quarry sand was mostly pale in colour, but sections with a high iron content were stained red. The corpse of a Common Shrew *Sorex araneus* was found on the path. Returning down the valley, the local bricks used in a farm house and its cottages were inspected. The cottages were built with the standard orange bricks. More expensive grey-glazed bricks were used for the front of the farm house, but the standard orange bricks were used for its sides and back. As the lane approached the boundary between the Reading Beds and the chalk, swallow holes began to appear in the woods at the side of the road. The bright orange Velvet Shank fungus *Flammulina velutipes* was growing at the base of a tree stump. The track then led out across the fields, with the start of the Chalk indicated by a change from grass to arable land. Looking down the valley towards Newbury, Lesley pointed out the rough ground above Red Farm where the overlying London Clay has formed a landslip over the Reading Beds.

On Saturday 13th March, Sean O'Leary led a field trip at Wallingford to look at mosses. The walk, which was attended by 16 members, started in pleasant sunshine at the graveyard of St Leonard's Church. An interesting collection of mosses was growing on the wall around the churchyard and there were more specimens on various gravestones and in the grass. *Pseudocrossidium revolutum*, with tiny, strongly

recurved leaves, formed bright green mats on the old mortar. *Rhytidiadelphus squarrosus* and *Kindbergia praelonga* were common in the turf, while glossy, feather-like fronds of *Homalothecium sericeum* clung to the gravestones and wall-tops. The new field guide to Mosses and Liverworts, recently published by the British Bryological Society, proved to be useful for identification. The group then went downriver along the Thames Path. Mosses found on the slipway of the Oxford University Boat Club, such as the dark green swards of *Didymodon nicholsonii*, were typical of species which grow in locations which are regularly flooded. Tree roots by the river yielded *Leskea polycarpa* and *Syntrichia latifolia*. A double whistling call announced the presence of Kingfishers *Alcedo atthis* and a pair was watched as they flew across the river and perched in willows on the far bank. After crossing a busy road bridge, the walk continued back along another footpath on the east side of the Thames. More moss species, such as *Orthotrichum diaphanum*, its leaves tipped with whitish points, were found growing on various trees, with Elder *Sambucus nigra* being a particularly good place to look. The graveyard of the disused Nuneham Murren church had a wonderful display of snowdrops. A small grey pigeon in the top of a big oak tree was identified as a Stock Dove *Columba oenas* and a Great Crested Grebe *Podiceps cristatus* was calling from the river.

Spring really seemed to have arrived when Renée Grayer led a walk in warm sunshine at Alder Moors Local Nature Reserve, Woodley on Saturday 10th April. Setting out from the car park along Tippings Lane, the leaves of Shining Cranesbill *Geranium lucidum* were identified. In a clearing in the woods, Wood Anemones *Anemone nemorosa* carpeted the floor, while Brimstone *Gonepteryx rhamni*, Peacock *Inachis io*, Comma *Polygonia c-album*, Holly Blue *Celastrina argiolus*, Speckled Wood *Pararge aegeria* and Green-veined White *Pieris napi* butterflies were flying in the sunshine. Moschatel *Adoxa moschatellina*, Opposite-leaved Golden-saxifrage *Chrysosplenium oppositifolium*, Common Dog-violet *Viola riviniana*, Wood-sorrel *Oxalis acetosella*, Ivy-leaved Speedwell *Veronica hederifolia* and Primrose were all in flower near the stream through the woods. Birds seen included Sparrowhawk *Accipiter nisus*, Buzzard *Buteo buteo* and Red Kite *Milvus milvus*. Rabbits *Oryctolagus cuniculus* were feeding in the field beside Beggars Hill Road and a Blackcap *Sylvia atricapilla* was singing from deep within a Blackthorn *Prunus spinosa* bush. On the way back through Ashenbury Park, the round exit holes of Hornet Moth *Sesia apiformis* larvae were found near the base of two hybrid Black Poplar trees. A Grass Snake *Natrix natrix* was glimpsed as it disappeared into the vegetation near Tippings Lake and a small black ladybird with two big red spots was identified as a Kidney-spot Ladybird *Chilocorus renipustulatus*. At the end of the walk, the tiny white flowers of Common Whitlowgrass *Erophila verna* were found growing in the park near the car park. 24 members came on the walk.

Michael Keith-Lucas led a walk in Bisham Woods on Sunday 25th April. The woods, which lie on a steep slope overlooking the River Thames near Marlow, are ancient mixed woodland with a rich ground flora. One of the local specialities is Small-leaved Lime *Tilia cordata*, with characteristic soft, heart-shaped leaves. It took some time for the 20-strong group to move off, because there were so many ancient woodland indicator species growing close to the car park. These included both Common Dog-violet and Early Dog-violet *Viola reichenbachiana*, Wood Anemone, Solomon's Seal *Polygonatum multiflorum*, Bluebell, Primrose, Wood Spurge *Euphorbia amygdaloides* and Enchanter's Nightshade *Circaea lutetiana*. The Dog's Mercury *Mercurialis perennis* plants in a sunny position at the side of the ride were all identified as males. The female plants prefer shadier conditions and were duly located later in a more suitable position.

Prompted by the sight of a Beech *Fagus sylvatica* seedling, Michael outlined some of the problems currently being faced by Chiltern Beech trees. With milder winters, the trees are producing pollen at earlier dates, but a single degree of frost is sufficient to destroy a season's pollen production. As a result, in 4 out of 5 years no viable Beech mast is produced. Beech seedlings need shade and the best conditions for growing young Beeches are with a conifer nurse crop. However, in some quarters, the planting of conifers is considered to be inappropriate for the Chilterns. The most suitable conditions for Beeches are on the clay-with-flints, above the chalk. Many of the older Beeches were planted on the less-suitable steep chalk slopes. Being a shallow-rooted species, they are particularly vulnerable to droughts or strong winds. Many Beech trees in the steepest part of the wood were felled in the great storm of 1987. Large numbers of Ash *Fraxinus excelsior* trees and a few larches *Larix* sp. have grown up in the area of storm damage.

Michael pointed out that the woodland evergreens such as Ivy *Hedera helix*, Holly *Ilex aquifolium* and Yew *Taxus baccata* are Atlantic species which decrease in abundance as one moves eastwards across Europe. Other ancient woodland indicator species encountered on the walk included Woodruff *Galium odoratum*, Common Twayblade *Listera ovata*, the wasp-pollinated Common Figwort *Scrophularia nodosa*, Sanicle *Sanicula europaea*, Yellow Archangel *Lamiastrum galeobdolon*, Wild Cherry *Prunus avium* and Common Whitebeam *Sorbus aria*. Several Orange Ladybirds *Halyzia 16-guttata* were seen and a round, smooth, dense pebble was identified as coming from the Bunter Beds in the Midlands.

Three Water Voles *Arvicola terrestris* were the highlight of the walk at Hungerford Marsh on Sunday 9th May, led by Roger Frankum. There was a cold north-easterly wind and the temperature was a chilly 10C as 9 members set out across the meadow of the BBOWT reserve. Marsh-marigolds *Caltha palustris* made bold splashes of yellow, and closer inspection revealed the tiny micromoth *Micropterix calthella* on some of the flower heads. Water Avens *Geum rivale* were in flower in good numbers. The bright orange speck of an Orange-tip *Anthocharis cardamines* butterfly egg was spotted on the flower head of a Cuckooflower *Cardamine pratensis*. In the ditches of the former water meadow were big clumps of Greater Tussock-sedge *Carex paniculata* and the white flowers of Marsh Valerian *Valeriana dioica*. A Kingfisher flashed electric blue across the meadow.

There were at least 4 families of ducks on the River Dun as it flowed through the adjoining Freeman's Marsh, with 9 tiny ducklings in the biggest family party. This was where Harry Matthews, out in front, spotted the first of the Water Voles, while his wife Lynn was able to identify a Grayling *Thymallus thymallus* by its long, rippling upper fin. Also on the river were a Dabchick *Tachybaptus ruficollis* and a family of Moorhens *Gallinula chloropus*, with a single youngster peeping out from beneath one of its parents on the nest. Swifts *Apus apus*, Swallows *Hirundo rustica*, House Martins *Delichon urbica* and Sand Martins *Riparia riparia* swooped above the marsh and a single Cuckoo *Cuculus canorus* was heard. On the walk back to the cars, everyone had good views from the towpath of two more Water Voles as they swam along the far bank of the Kennet and Avon Canal.

The first evening field trip of the year was on Tuesday 11th May, when Martin Sell led a walk at Woolhampton, starting from the car park of the Rowbarge. A Barn Owl *Tyto alba* was hunting in the first field next to the gravel pit. It flew across the field, perched on a fence post and then dived down into a clump of long vegetation, where it was joined by a Kestrel *Falco tinnunculus*, which appeared to be trying to steal its prey. A pair of Yellow Wagtails *Motacilla flava* was spotted in the next field. The male was a strong yellow, while the female was paler in colour. The next sighting was a plover on the mud at the water's edge, but without a telescope it was impossible to confirm whether it was a Ringed or Little Ringed Plover *Charadrius hiaticula* or *C. dubius*. Swifts, Swallows and House Martins were flying above the lake, while Reed Warblers *Acrocephalus scirpaceus* and Sedge Warblers *Acrocephalus schoenobaenus* were singing from the waterside vegetation. A Hare *Lepus europaeus* was spotted nearby and a Cuckoo was calling. As the light faded, the group were thrilled by the sight of 3 Hobbies *Falco subbuteo* flying backwards and forwards across the far side of the gravel pit. The walk was attended by 14 members.

The weather was cool and damp on Saturday 29th May when Chris Bucke led a walk at Ashford Hill. The walk started down the valley of the Baughurst Brook, following the footpath from Brook Farm. The first field was very colourful, with tall yellow Meadow Buttercups *Ranunculus acris* above Red Clover *Trifolium pratense*. The little micro-moth *Adela rufimitrella* was found on a flower head of Lady's Smock and Crested Dog's-tail *Cynosurus cristatus* was seen. The next field had a rich and varied flora, with species including Pepper-saxifrage *Silene silaus*, Meadow Thistle *Cirsium dissectum* and Ragged Robin *Lychnis flos-cuculi*. A year ago at the end of May, these fields had been full of orchids. With the later season in 2010, many orchid leaves were seen, but only a single clump of Heath-spotted Orchids *Dactylorhiza maculata* were in flower. Against the furthest hedge, Pignut *Conopodium majus* and Wood Spurge were abundant.

The 20-strong group retraced their steps, then crossed a perilous stile into the field next to the Ship Inn. The dampest ditch in the field had Tubular Water-dropwort *Oenanthe fistulosa*, Marsh-marigolds and Marsh Stitchwort *Stellaria palustris*. Across the road in the National Nature Reserve, Narrow Buckler-

fern *Dryopteris carthusiana*, False Fox Sedge *Carex otrubae* and Remote Sedge *Carex remota* were identified in a particularly wet part. Higher up the hill, Dyer's Greenweed *Genista tinctoria* was just coming into flower on top of the ant hills. Several plants of Bitter-vetch *Lathyrus linifolius* were in flower and other plants included Betony *Stachys officinalis*, Heath Speedwell *Veronica officinalis*, Lousewort *Pedicularis sylvatica*, Marsh Valerian and Pignut. Common Blue *Polyommatus icarus* and Small Copper *Lycaena phlaeas* butterflies were roosting on the vegetation and Mother Shipton *Callistege mi* moths were disturbed from the grass.

Sally Rankin led a walk at Mill Meadows, Henley-on-Thames on Thursday 3rd June. Mill Meadows are owned by the Town Council and the Henley Wildlife Group has been managing parts of it for wildlife since 1995. The main feature is the pond area south east of the River and Rowing Museum. The pond nearest the railway line was dug in February 1996 and was planted with a variety of specimens from the Warburg reserve, including Mare's-tail *Hippuris vulgaris*, which according to Chris Bucke was the rarest species seen that day. The other two ponds were dug in September 1995 and August 2004. The area in front of the ponds was awash with buttercups, Ragged-Robin, Water Forget-me-not *Myosotis scorpioides* and many other species. Damselflies and dragonflies, including Banded Demoiselle *Calopteryx splendens* and Southern Hawker *Aeshna cyanea*, were flying over the ponds. The exit hole of a Hornet Moth was found near the base of a hybrid Black Poplar. The group then visited Ratty's Refuge, the Museum's Water Vole garden, which was based on an entry in the Chelsea Flower Show in 2008. It contains an array of garden and wild plants, a pond and some interesting features including the Wind in the Willows sculptures and the gabion seats, which are filled with logs to provide an additional wildlife habitat. The walk then followed the stream on the other side of the Museum and returned via the grassy triangle. Leaflets describing the wildlife trail are available from the Museum.

Janet Welsh led a field trip at Goring Heath on Saturday 12th June, starting from the former King Charles Head pub. The first part of the walk was in Gutteridge's Wood. Southern Wood-rush *Luzula forsteri*, identified by its V-shaped inflorescence, was growing by the roadside, together with Wood Melick *Melica uniflora* and Wood Millet *Milium effusum*, while Wood Barley *Hordelymus europaeus* was found further into the wood. An observant member spotted the characteristic grey flaky bark of a particularly tall and previously unrecorded Wild Service-tree *Sorbus torminalis*. Nearby, a hole in a dead branch at the top of a tree was being used as a nest site by a noisy family of Great Spotted Woodpeckers *Dendrocopos major* and a youngster with a red cap peered out from time to time. Several Bird's-nest Orchids *Neottia nidus-avis* and a White Helleborine *Cephalanthera damasonium* were in flower. It was a good afternoon for comparing different fern species, with Broad Buckler-fern *Dryopteris dilatata* and Narrow Buckler-fern and Scaly Male Fern *Dryopteris affinis* and Male Fern *Dryopteris filix-mas* growing together. A fresh Red Admiral *Vanessa atalanta* was basking in the sunshine and there was a big patch of Common Cow-wheat *Melampyrum arvense*. The second part of the walk was in an organically-managed field with an interesting collection of arable weeds. The field had been under-sown with clover and was going to be topped the following day. A sea of scarlet poppies waved in the breeze, and the plants below included Weasel's-snout *Misopates orontium*, Small Toadflax *Chaenorhinum minus*, a fluellen, Field Pansy *Viola arvensis* and Field Pennycress *Thlaspi arvense*. The walk was attended by 24 members.

13 members gathered in hot sunshine on Saturday 26th June at BBOWT's College Lake reserve near Tring. The entrance to the reserve is through the award-winning new visitor centre, which looks out across the lake. A preliminary search of the water's edge revealed Lapwings and an Oystercatcher, and a pair of Redshanks was seen later in the day. Almost immediately, the first of many Bee Orchids *Ophrys apifera* was found beside the path, with the lacy white flowers of Dropwort *Filipendula vulgaris* nearby. The leaves of a group of Great Mullein *Verbascum thapsus* plants showed feeding damage by the distinctive pale blue, yellow and black caterpillars of the Mullein Moth *Shargacucullia verbasci*. Two fields at the reserve contain a superb collection of arable weeds. Each year, one is cultivated while the other is left fallow. The fallow field was alive with insects, including Marbled White *Melanargia galathea*, Small Heath *Coenonympha pamphilus* and Common Blue butterflies, and Narrow-bordered Five-spot Burnet *Zygaena lonicerae* and Six-spot Burnet *Zygaena filipendulae* moths. The cultivated field had a wheat crop which was dotted with stunning deep blue Cornflowers *Centaurea cyanus* and scarlet poppies. Closer inspection revealed pink Corncockle *Agrostemma githago*, deep red Pheasant's-eye

Adonis annua, the tiny purple flowers of Venus's-looking-glass *Legousia hybrida* and the purple heads of Field Cow-wheat *Melampyrum pratense*. A small white umbellifer was keyed out as Knotted Hedge-parsley *Torilis nodosa*, and Shepherd's-needle *Scandix pecten-veneris* and Thorow-wax *Bupleurum rotundifolium* were also found.

Further along the track, abundant Pyramidal Orchids *Anacamptis pyramidalis* and Common Spotted-orchids *Dactylorhiza fuchsii* were growing beside the path. A picnic lunch was enjoyed in the shade of a small wood amongst the seed spikes of White Helleborines and leaves of Herb-Paris *Paris quadrifolia*. Afterwards, some members carried on round the lake, while others returned along a lower path, closer to the water's edge. The pale yellow flowers of Dragon's-teeth *Tetragonolobus maritima* were discovered next to the path down to one of the bird hides. Cold drinks and ice creams in the visitor centre were very welcome at the end of a hot walk.

Malcolm Storey arranged a visit to the National Trust's Sandham Memorial Chapel, near Burghclere, on Tuesday 6th July. The first part of the evening was spent in the wildflower meadow of the orchard in front of the chapel. Due to the recent hot and dry weather, the meadow was a little past its best, but there was still a good display of Common Knapweed *Centaurea nigra*, Yellow-rattle *Rhinanthus minor* and Common Spotted-orchids and a single Pyramidal Orchid was in flower. A white rose growing in the hedge was identified by its prominent style as a Field Rose *Rosa arvensis*. Malcolm reported that, in a recent nationwide survey of wax-cap fungi at National Trust properties, the Sandham orchard had topped the poll for the number of species recorded. Michael Keith-Lucas gave a few tips on grass identification. He compared Creeping Soft-grass *Holcus mollis*, with its ring of small hairs around the nodes, and Yorkshire-fog *Holcus lanatus*, and recommended remembering that 'Molly has hairy knees' in order to separate the two species. Other grasses in the orchard included Crested Dog's-tail, Common Quaking-grass *Briza media*, Yellow Oat-grass *Trisetum flavescens* and Sweet Vernal-grass *Anthoxanthum odoratum*. The 16-strong group then went inside the chapel to admire Stanley Spencer's wall paintings, which depict battlefield and hospital scenes from the first World War.

Fresh from an appointment with the physiotherapist, Martin Sell gamely led a joint field trip with BBOWT at Walbury Hill and Coombe on Saturday 10th July, despite an injured foot. It was a walk of stunning views, first northwards across the Kennet Valley, and then into the steep-sided valley around Coombe. 11 people set out from the east end of Walbury Hill. Small Tortoiseshell *Aglais urticae* was the commonest butterfly and 3 big fast-flying orange butterflies were identified as Dark Green Fritillaries *Argynnis aglaja*. Chalk flowers beside the track across Walbury Hill included Wild Thyme *Thymus polytrichus*, Squinancywort *Asperula cynanchica*, Small Scabious *Scabiosa columbaria* and Wild Basil *Clinopodium vulgare*. A Hummingbird Hawkmoth *Macroglossum stellatarum* was an exciting find. A short diversion was made along the road which crosses the ridge and drops down to Coombe to enjoy the splendid display of flowers on the verge. The pinnatifid leaves of Greater Knapweed *Centaurea scabiosa* could be compared with the simple leaves of Common Knapweed and there were Fragrant-orchids *Gymnadenia conopsea* and Common-spotted and Pyramidal orchids. Knapweed Broomrape *Orobanche elatior* was abundant, with plants in all stages from first spikes to full flowers and withered brown heads.

The walk continued westwards along the ridge past Coombe Gibbet, then south down the Test Way. Lunch was spent in a flowery meadow in Coombe Wood, with tall blue clumps of Viper's-bugloss *Echium vulgare* and Silver-washed Fritillaries *Argynnis paphia* patrolling along the edge of the clearing. Small Heath butterflies and Six-spot Burnet Moths flew across the meadow. The walk continued back up through Coombe Wood, then dropped down to the beautiful 12th Century church at Coombe. Bat droppings were spotted inside the church and there was a collection of moth wings in the porch. The walk finished with a steep climb back up to Walbury Hill.

Julia Cooper organised a field trip to the Roundwood Estate near Micheldever on Saturday 24th July. We are grateful to Mrs Susanna Church for giving the Society permission to visit the estate. It is one of the richest sites in Britain for arable flora and is recognised as an Important Arable Plant Area (IAPA). Farm manager Jon Harley gave the group a brief introduction to the farm, then Harold Makant from Natural England explained how different options of the Higher Level Stewardship Scheme were used

on the estate. Some of the fields had cultivated margins and annual plants there included Round-leaved *Kickxia spuria* and Sharp-leaved Fluellin *Kickxia elatine*, Dwarf Spurge *Euphorbia exigua*, Stinking Chamomile *Anthemis cotula*, Small Toadflax, Long-stalked Crane's-bill *Geranium columbinum*, Small-flowered Crane's-bill *G. pusillum* and Dove's-foot Crane's-bill *G. molle*, Dense-flowered Fumitory *Fumaria densiflora* and Prickly Poppy *Papaver argemone*. Other fields had 6 metre-wide grass margins. These are good for small mammals and hunting Barn Owls. Chalk grassland flowers in the field margins included Common and Greater Knapweed, Wild Basil, Agrimony *Agrimonia eupatoria* and Common Rock-rose *Helianthemum nummularium*. Silver-washed Fritillaries were seen in good numbers along the edges of the fields which adjoined woodland and other butterflies identified included Common and Holly Blues, Peacock and Marbled White.

An area of the farm which had been designated as set-aside 15 years ago had developed a rich chalk flora. There were plans to harvest seeds from this area to use in some of the grass margins. Another field had a section which had been sown with a wild bird seed mix. More Prickly Poppies were found growing below a rape crop. Very rare, and classified as 'Vulnerable', these are smaller than the Common Poppy, with more orange-coloured petals and long, narrow bristly seed capsules. Some of the rarest plants of the visit were found in a cultivated field margin at a nearby site, including Ground-pine *Ajuga chamaepitys*, Venus's-looking-glass and Narrow-fruited Cornsalad *Valerianella dentata*. The walk was attended by 19 members.

Graham Saunders led a bat walk for 15 members at Greywell on Saturday 31st July. The evening started with visits to two Hampshire and Isle of Wight Wildlife Trust reserves. A few Marsh Helleborines *Epipactis palustris* were still in flower at Mapledurwell Fen and there were drifts of wetland plants such as Meadowsweet *Filipendula ulmaria*, Water Mint *Mentha aquatica*, Wild Angelica *Angelica sylvestris* and Hemp-agrimony *Eupatorium cannabinum*. Common Blue butterflies were roosting on long grass stems and an unfamiliar insect was identified as a juvenile Long-winged Conehead *Conocephalus discolor*. The group then moved on to Greywell Moors, near the headwaters of the River Whitewater. Marsh Fern *Thelypteris thelypteroides* was abundant, and other sightings included Betony, Devil's-bit Scabious *Succisa pratensis*, Bogbean *Menyanthes trifoliata*, Marsh Lousewort *Pedicularis palustris* and a young Common Toad *Bufo bufo*. Grey Herons *Ardea cinerea* flew in to roost in the treetops across the river. The cows which graze on the reserve took a great interest in the proceedings.

As darkness fell, the group set off for the Basingstoke Canal. The first bat sighting was a Serotine *Eptesicus serotinus* over the village street. This is a relatively large bat which roosts in buildings. Greywell Tunnel is an important bat hibernating site. The bat detector indicated that a number of bats were flying close to the tunnel entrance, including a possible Whiskered *Myotis mystacinus* or Brandt's Bat *M. brandti*. Along the tow-path, Daubenton's Bat *Myotis daubentonii* and pipistrelles were detected, with a Noctule *Nyctalus noctula* over an adjoining field. A young Tawny Owl *Strix aluco* was being fed by a parent in a tall canal-side oak. The bat detector picked up the chirps of crickets as well as the clicks of bats. At the limit of navigation in the canal is a big turning circle. Torches were directed across the open water here, and the bats were watched as they hunted above the canal.

We are grateful to Sandra Parkinson for welcoming the Society back to Chalkhills, Whitchurch-on-Thames, for a very successful mothing night on Saturday 7th August. The site consists of a superb steep south-facing hillside of high-quality chalk grassland which is designated as a Local Wildlife Site and, to the east, a grassy valley with woods on either side which runs up from the road at the site of the former vineyard, starting northwards but curving round to the west. Organiser Norman Hall arrived early and with Sandra's help set up 4 lights, 2 at the Local Wildlife Site (SU64037785) and 2 halfway up the valley, just below the woods on the east side. Lower down the valley, Jan Haseler set up a light over a sheet and a Skinner trap, also adjacent to the woods on the east side. Ricki Bull set up her trap just inside the southern end of the woods, above the vineyard field.

The commonest moth in the valley was, surprisingly, the Straw Underwing *Thalpophila matura* and the distinctive little Lime-speck Pug *Eupithecia centaureata* was also present in good numbers. Highlights of Jan's trap included an August Thorn *Ennomos quercinaria*, a Magpie *Abraxas grossulariata* and a number of Chalk Carpets *Scotopteryx bipunctaria*. *Oncocera semirubella*, a distinctive pyralid moth and a relative newcomer to VC23, was seen at the Skinner trap, and ultimately a total of 4 specimens were

recorded in the valley. Other visitors included a dor beetle and pipistrelle bats. Hornets *Vespa crabro* were less welcome and Martin Sell was unfortunate to be stung on his bad ankle. He noted afterwards that he had not tucked his socks into his trousers – members will be advised to do this another time, especially as it also reduces the chance of picking up ticks or harvest mites. Ricki's trap proved to be very sheltered and a good place for carpet moths, including Royal Mantle *Catarhoe cuculata*, Pretty Chalk Carpet *Melanthia procellata* and Chalk Carpet. *Sitochroa palealis*, another distinctive pyralid moth, was also recorded here. Norman's lights in mid-valley produced fewer interesting species, but they were left running overnight and so picked up many more noctuids, including several characteristic autumnal species not seen elsewhere.

The lights at the Local Wildlife Site, which were also run overnight, were unexpectedly productive. Norman was astonished to find a total of 36 Chalk Carpets in the 2 Robinson traps in the morning. This is a Biodiversity Action Plan (BAP) species that is said to be uncommon! There were also 45 *Mecyna flavalis*, a yellow pyralid moth that was seemingly very rare in Berkshire/Oxfordshire only a few years ago, but is experiencing a resurgence. Also, many more 'prominents' were seen here than in the valley, including Maple Prominent *Ptilodon cucullina*. However, despite the differences in the composition of the catches, the total numbers of species of macrolepidoptera recorded in the valley and at the Local Wildlife Site were virtually the same. The evening was attended by 10 members plus 5 visitors from the Whitchurch-on-Thames Habitat Study Group. Another 4 members came at 09:00 next morning to view selected specimens which had been kept for them to see.

Malcolm Storey led a 32-strong group around The Holies, Streatley on Sunday 15th August. Near the start of the walk was a Horse-chestnut *Aesculus hippocastanum* whose leaves were brown with the mines of the Horse-chestnut Leaf Miner *Cameraria ohridella*. Flying in the sunshine along the edge of the woods at the top of the site was a Silver-washed Fritillary. 2010 has been an outstanding year for this species in Berkshire and its range is expanding rapidly. It had been recorded for the first time at The Holies a few weeks previously. The group then spread out to look at the chalk flora in the valley. Typical flowers included Wild Marjoram *Origanum vulgare*, Wild Basil, Vervain *Verbena officinalis*, Yellow-wort *Blackstonia perfoliata*, Pale Toadflax *Linaria repens*, Carlina Thistle *Carlina vulgaris* and Autumn Gentian *Gentianella amarella*. The commonest butterfly was the Common Blue and a few Small Heaths were also on the wing. A bronze micro-moth with long antennae on a Small Scabious flower was identified as *Nemophora metallica* and there were several specimens of the distinctive little Lime-speck Pug. A small red and black insect was identified as *Corizus hyoscyami*, a rhopalid bug.

The steep south-facing slope at the far side of the site was outstanding for butterflies. Fresh second generation Adonis Blues *Lysandra bellargus* posed obligingly for the photographers and Chalkhill Blues *Lysandra coridon* were still numerous. The little Red Data Book moth *Mecyna flavalis* was abundant and a single specimen of the attractive little red and yellow micro-moth *Onocera semirubella* was found. In the short turf at the top were Frog Orchid *Coeloglossum viride* and Bastard-toadflax *Thesium humifusum*. The powdery mildew *Erysiphe thesii* was found on Bastard-toadflax, making The Holies only the third British site where this mildew has been identified. Malcolm also found galls caused by *Albugo tragopogonis* var. *tragopogonis* on Greater Knapweed – an oomycete which he finds commonly on this host, but is apparently rarely recorded. The white inkcap *Coprinopsis nivea* was found on a cow-pat and there was a clump of Fairy Ring Champignons *Marasmius oreades*.

Rod d'Ayala and Chris Raper led a walk around BBOWT's Warburg Reserve at Bix Bottom on Saturday 21st August. 12 members attended on a rather cloudy and humid day with occasional drizzle. Despite (or perhaps due to) the cooler than average conditions, there were plenty of Slow-worms *Anguis fragilis* and Common Lizards *Lacerta vivipara* basking on wood piles or under tin sheets. Butterflies seen included very ragged Silver-washed Fritillaries, a single Essex Skipper *Thymelicus lineola*, Common Blues, Brown Argus *Aricia agestis*, Speckled Wood, Meadow Brown *Maniola jurtina*, Gatekeeper *Pyronia tithonus*, Red Admiral, a very worn Comma, Peacock, Small Tortoiseshell and Small White *Pieris rapae*. Moths seen included Yellow Shell *Campptogramma bilineata*, Treble-bar *Aplocera plagiata* and Common Carpet *Epirrhoe alternata*. Interesting plant species seen included both Chiltern Gentian *Gentianella germanica* and Autumn Gentian *G. amarella*, and Pale Toadflax *Linaria repens*.

Other notable insects which were identified included *Volucella inflata* (a rather jolly black and orange hoverfly of ancient woodlands), *Volucella inanis* (a large wasp-mimic hoverfly), *Chrysotoxum bicinctum*, *Pipiza lugubris*, *Episyrphus balteatus* (the marmalade hoverfly), *Tachina fera* (a large parasite fly), *Phasia obesa* (a small bug parasitoid), *Machimus atricapillus* (a medium-sized grey robber-fly), Dark Bush-cricket *Pholidoptera griseoptera*, Speckled Bush-cricket *Leptophyes punctatissima*, Common Groundhopper *Tetrix undulata*, Field Grasshopper *Chorthippus brunneus*, *Endomychus coccineus* (a false ladybird) and *Tiphia femorata* (a black, hairy solitary wasp with orange legs). A Roesel's Bush-cricket *Metrioptera roeselii* was heard but not seen.

Tony Rayner led a walk at Upper Basildon on Friday 3rd September. The 15-strong group headed out from the Red Lion on the outskirts of the village for a circular 6 mile trek around the local paths and back roads. The wooded pathways provided a bounty of fungi and bird calls for those patient enough to listen. Only the hamlet of Quick's Green provided a glimpse of civilisation along the way until completing the ascent to the impressive Upper Basildon playing fields and village hall. Blandys Lane led back to the pub for lunch and a much needed beer. Apart from the fungi, the natural history highlights of the day were the sight of a Fox *Vulpes vulpes* holding some prey in its mouth – either Grey Squirrel *Sciurus carolinensis* or Rabbit; the sounds of Green Woodpecker *Picus viridis* and Great Spotted Woodpecker; Nuthatches *Sitta europaea*, Red Kites, Buzzards, Goldcrests *Regulus regulus*, Blue Tits *Parus caeruleus*, Great Tits *P. major* and Coal Tits *P. ater*; a Yellow Wagtail passing overhead and Swallows gathering prior to their migration. Butterflies were few and far between, but towards the end of the walk there were plenty of fresh Speckled Woods to be seen at close quarters.

Michael Keith-Lucas led 14 members on a walk at Wildmoor Heath on Sunday 19th September, starting at BBOWT's Broadmoor Bottom Reserve. Pollen analysis shows that the peat deposits in the valley bottoms have been accumulating since the last ice age. After a perilous crossing of a valley mire, using large tussocks and trying to avoid the intervening deep boggy sections, plants found included Round-leaved Sundew *Drosera rotundifolia*, the orange seed heads of Bog Asphodel *Narthecium ossifragum*, White Beak-sedge *Rhynchospora alba* and a number of different types of sphagnum moss. A large spider with 4 white dots on its back was identified as *Araneus quadratus*. Walking up the side of the valley, the path crossed the Bagshot Sands and climbed up to the gravel deposits at the top of the hill. Cross-leaved Heath *Erica tetralix* was restricted to wet areas in the valley bottom, Bell Heather *Erica cinerea* grew only in the drier areas at the top, while Heather *Calluna vulgaris* was found throughout. Bracken *Pteridium aquilinum* was restricted to the Bagshot Sands and its upper limit marked the boundary with the gravel deposits.

Michael likened himself to the Grand Old Duke of York as he led the group back down the hillside and across the wet valley bottom again, where a Raft Spider *Dolomedes fimbriatus* was seen on the fronds of a Hard Shield-fern *Polystichum aculeatum*. Following recent rain, a wide variety of fungi was found, including a Blusher *Amanita rubescens*, a Brown Birch Bolete *Leccinum scabrum* and a spectacular display of Fly Agaric *Amanita muscaria*. The caterpillar of a Sycamore Moth *Acrionicta aceris* crawled across a fallen pine trunk and then disappeared inside a hole in the wood. To the relief of those photographers who had failed to record it before it vanished, it re-emerged for further pictures. It had long orange and yellow hairs and white spots.

The annual Fungus Foray was held on Sunday 17th October, when Gordon Crutchfield led a group of 12 members through Lackmore Woods. Before even leaving the roadside, four species of fungi were found - *Cortinarius auroturbinatus*, *Collybia butyracea*, *Lepiota mastoidea* and *Lycoperdon foetidum*. The latter has a hole in the top through which clouds of dust-like pores escape when released by raindrops falling on the fungus. Rain on the previous day had contributed to a bumper crop of fungi and Gordon was kept very busy as he helped the group learn about identification pointers for different species. He showed that the *Coprinus* species have fibrous stems that can be torn apart longitudinally to reveal the 'strings' and that some waxcaps feel rather like candlewax. In addition to the fungi, one lone November Moth was found clutching a twig, beautifully camouflaged in the, by then, darkening woods.

On 4th November, there was a joint trip with Reading Gardeners to the Royal Botanic Gardens, Kew for a visit behind the scenes in the Jodrell Laboratory and the Herbarium. Due to the coach driver's confusion about pick up locations, the group arrived a quarter of an hour late at the Gardens. The Jodrell Laboratory visit started with an interesting presentation on the six main research programmes of its scientists. Then the party was split into two groups of 15 for a tour of the laboratories of four of the research sections. In the labs of Molecular Systematics, the freezers were shown where DNA samples of tens of thousands of plant species are kept at -80°C. They are used to reassess the relationships among plant species and families and to make 'barcodes' of species. Next, a short presentation was given on the work of the 'Sustainable Uses of Plants' section. Plants of *Plectranthus barbatus*, which produces the medicinal substance forskolin, and *Catharanthus roseus*, which produces the anticancer substance vincristine, were shown. The problems with imported drugs for 'Traditional Chinese Medicine' were also discussed. The 'Authentication Centre' has been established at Kew to check if imported Chinese plants are the correct species or cheaper but often toxic substitutes. In the basement of the Jodrell Laboratory is the herbarium of the Mycology section, the biggest herbarium in the world for mushrooms and toadstools. Various interesting specimens were displayed. The next laboratory was Micromorphology, where drawers containing tens of thousands of anatomical slides are kept for reference and identification, especially of trees. A University of Reading botany student had a work experience placement in this laboratory. After complimentary teas and coffees, there was a lunch break with the opportunity to wander around Kew Gardens for an hour. With the temperature at 17°C, the weather was surprisingly warm for the time of year.

At 2pm, the group gathered near the Main Gate of the Gardens for the visit to the Herbarium. RDNHS member James Wearn was one of the two members of staff who showed the party round. Two groups of 15 visited the Herbarium, the Library and the Botanical Art Collection. The Herbarium is a labyrinth of large rooms with high ceilings, most of which were built in the 19th century, with numerous cupboards in which millions of herbarium specimens are stored, many of which are type specimens. Very recently a big extension to the Herbarium has been built and taxonomists are in the process of moving all the specimens of the large families Leguminosae and Compositae to the new extension, so that there is more space in the old part of the Herbarium for the other plant families. The visit ended at 15:30 and people could look around the Gardens for another half an hour before the coach returned to Reading.

After his fascinating talk about earthworms on the previous Tuesday evening, Dan Carpenter gave an extended field tutorial at Withymead Nature Reserve on Saturday 20th November to 14 members and friends. The participants were equipped with spades, trowels, trays, mustard and vinegar and OPAL identification keys. Action began with the digging of a demonstration hole and sifting through the soil produced. Earthworms were duly found and identified, then the participants dispersed to areas with different habitats and found specimens for themselves, with Dan enthusiastically encouraging use of the keys. At the end of a couple of hours, six species of earthworm had been found, together with millipedes, crane fly larvae and other earthy beasts. The earthworms found were what were to be expected – green and pale forms of Green Worm *Allolobophora chlorotica*, Redhead Worm *Lumbricus rubellus*, Lob Worm *Lumbricus terrestris*, Little Tree Worm *Satchellius mammalis* and Grey Worm *Aporrectodea caliginosa*. The data collected will be forwarded to the Natural History Museum and added to their records. The morning proved to be very enjoyable and some of the worm species unexpectedly colourful. The enthusiasm of the worm collectors suggested that many more records will be made in the near future.

The final walk of the season was scheduled to be in the Nettlebed and Bix area on Saturday 18th December, but due to heavy snow on the morning of the walk, the trip was cancelled.

I would like to take the opportunity to thank all the members who have led walks in 2010. Renée Grayer has done a wonderful job, providing species lists for many of the walks. 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 Chris Bucke, Renée Grayer, Sean O'Leary, Norman Hall, Sally Rankin, Rod d'Ayala, Chris Raper, Tony Rayner, Gordon Crutchfield and Ricki Bull and for their contributions to this report.

COACH TRIP TO KEW

Graham Saunders

On 4th November, a joint party of 30 Natural History Society and Reading Gardeners members went for a “scientific” visit to Kew. The tour started with a talk on the work of Kew labs including the classification of plants. It seems amazing that thousands of plant species have now had their genetic code sequenced. This means that the relationships of plants can now be found from comparison of their DNA instead of from their flower and plant structure. They also speculated upon having a hand-held gene sequencer, like a supermarket checkout reader to identify plants. It may be some time before this supersedes the identification books, but the scientific advances are amazing.

We were then taken on a tour of the Jodrell labs where the plant specimens are kept and analysed. The gene sequencing machine was jaw dropping. Not much bigger than a display cabinet, it automatically sequences thousands of DNA fragments a day (done by lasers, we were told). We had an interesting talk on the work being carried out to analyse the chemicals in plants to see if they can be of help (in medicines) or harm (may cause cancers).

We moved on to the store rooms and almost unbelievably were shown specimens that were collected by Darwin on his voyage on HMS Beagle. How do you preserve fungi – dry them, of course. How do you preserve big round lumpy things, like fruits or seeds – you slice them up and press them and dry them.

We met our member, James Wearn, who took us round the Herbarium, and no, we did not see all the 7 million specimens, but we saw a few. And what a fabulous old Victorian building with all the exposed iron work. It was interesting to see some of the older specimens which were mounted not much differently to today. We were then given a demonstration of the modern mounting techniques. The specimens are collected in far off places, placed in drying presses, then shipped in bundles of 50 to Kew. They are then mounted on acid-free A3 paper using acid-free glue. Some leaves are turned over to show the underside, and some flowers or seeds are stored in envelopes.

Not to forget the wonderful botanical paintings and the (very lifelike) wax orchids. Thanks to Renée who organised the Kew end and all the brilliant staff at Kew who took time out to talk to us and to James for showing us round the Herbarium.

WEDNESDAY WALKS

Chris Bucke, Ricki Bull, David Cliffe, Jan Haseler

The first of the informal Wednesday walks of 2010 had to be cancelled on account of the snowy weather. For the second, on 17th February, the weather turned benevolent. There was sunshine and the air was beginning to warm as the party of around a dozen, led by Alice and Eric Ayers, walked among the ancient trees of Crowsley Park. There were some interesting fungi and insects among the old timber lying around, but it was the birds and bird-song that made the morning really memorable. A flock of Goldcrests was seen, there were Skylarks singing above, Nuthatches and Green Woodpeckers were calling among the trees – and then the unmistakable croak of a Raven was heard. A member of the group, by imitating the croak, enticed a pair of Ravens out of a cedar tree, where they couldn't be seen, onto the bare branch of a deciduous tree, where they remained in full view for some minutes. They began to touch their bills, and preen one another. Some crows obligingly flew by, so that the difference in size between a crow and a raven was at once apparent. It was a very happy group which enjoyed lunch at the Butcher's Arms in Sonning Common afterwards.

On 17th March, fifteen members met at the Thatcham Nature Discovery Centre on a mild, cloudy day and walked through the reed beds to the Kennet and Avon canal at Widmead Lock, then along to Bull's Lock and up to the gravel pit at Lower Farm, where birds were observed from the hide. The party returned by a similar route. The countryside did not look at its best. After all the snow and cold weather, little greenery was to be seen and there was an irritating amount of litter throughout the route. Flowers

were few and far between, so all the species seen merit mention. The Hazel trees had fine displays of catkins and some Alders were approaching their best. One "pussy" willow had ripe catkins and a single Cherry Plum very near the end of the walk had one or two blooms. By the paths there were a few Lesser Celandines and some Daisies. Butterbur was beginning to appear in some quantity on the banks of the canal and there were good displays of its relative, Coltsfoot, both there and approaching the observation hide. A few white-flowered Sweet Violets (*Viola odorata*) were found beside Bull's Lock with the ever-reliable White Deadnettle in bloom nearby. The birders had more to see. Most of the ducks anticipated were seen, with the addition of Pochard and one rather fine male Red-crested Pochard on the lake at Thatcham at the start of the walk. Further on a pair of Great Crested Grebes were rehearsing their bonding ceremony. Garganey, Wigeon and Cormorants were noted on the Lower Farm lake. One of the Cormorants was a juvenile with surprisingly white plumage. A Kingfisher flashed along the canal between the two locks and Nuthatches were seen. An unfamiliar song was heard, believed to be a Cetti's Warbler, and the cries of Little Grebes were heard from the reed beds. The occasional midge gave hints of a fine day to come.

On 21st April, twenty-three members took advantage of the warm spring day to join Martin Sell on a walk from Tyle Mill along the Kennet and through the surrounding countryside. The four mile walk seemed shorter since our attention was held by the wide variety of interesting plants, butterflies and birds that were seen. Within a short time, a large patch of Blinks (*Montia fontana*) was spotted and closely examined by the group. The effect of the prolonged cold weather of the past few months had created a profusion of plants blooming at the same time, rather the succession usually seen. Greater Tussock Sedge (*Carex paniculata*) was seen in several places along the canal, forming some large tussocks which made the reason for its common name evident. Among the butterflies seen, Orange-tips were most numerous with some Holly Blues, Commas and Peacocks. At the end of the walk, members relaxed over a well-earned lunch at the Fox and Hounds - a lovely end to a most pleasant walk.

May 19th brought a walk down the Hernes Valley, then returning over the top along Pack and Prime Lane to the church at Rotherfield Greys, then down the steep bank back to the valley. It was enjoyed by around a dozen people, in warm sunshine. Butterflies were on the wing, and we wondered whether the semi-improved grassland on the valley sides was being managed for their benefit. Grizzled Skippers, Small Coppers, Orange-tips, Small Heaths in plenty, and several Green Hairstreaks were seen. Red Kites and Buzzards were overhead most of the time, and there was an abundance of late spring flowers, in the grasslands, in the woods, and around the edges of cornfields. Alice and Eric Ayers led the way.

Ken Thomas led a walk round Sonning in perfect summer weather on June 23rd. Resisting the temptation to enter St. Andrew's Church, the walk went through the churchyard, through the village and along Charvil Lane, then turned north on a track belonging to the university farm. One field had been tilled and then left, so there was a profusion of agricultural weeds, some of them not so common. Among the Fat-hen were Corn Spurrey, Henbit Dead-nettle and Bugloss in plenty. Saint Patrick's stream was crossed, and from there the path was along the river to Sonning Lock, where some people lunched. No unexpected plants were seen along this stretch, but the flowering season was at its height, with plenty to attract the photographers in the marshy and unkempt areas.

Sixteen members met at Blewbury on 14th July and walked through the village, out to and up Blewburton Hill and back. The expectation had been that many butterflies would be seen but the weather ruled this out, with only the most hardy species, Gatekeepers, Meadow Browns and Ringlets, being noted. The walk, though, was most enjoyable. The streams through the village flowed surprisingly vigorously, indicating just how full the chalk aquifers must be after the recent wet summers. Sticklebacks were observed in the streams. In the area of Blewburton Hill, the striking blue flowers of Chicory made a fine display, as did bedstraws, knapweeds, poppies and many other species of chalk grassland. Sheep had grazed the turf on the hill itself very comprehensively. Some debate developed over the identification of a wild leek on the path below Blewburton Hill: some were sure that it was the common Crow Garlic, others were sure that it was not. The latter plumped for *Allium sphaerocephalon*, round-headed leek. This, however, is an extreme rarity as a wild species in the UK. It is found as a garden escape and other species of garden origin were also noted. Most members followed the walk with a very satisfactory

lunch in the Red Lion and many bought excellent local cherries in the farm shop nearby. Leader Chris Bucke reports that there will be more expeditions from Blewbury!

Thirty-two members and friends (probably a record number for a Wednesday walk) met at Bridge End in Dorchester on 18th August for a gentle walk beside the River Thame and the River Thames and through the nearby water meadows, now being actively conserved and improved by the local community. The walk started after an engrossing visit to Dorchester Abbey. Ken Thomas, the ever interesting but not always optimistic leader, stated that “there is not much natural history in August” so many of the party set about proving him wrong, with little difficulty. The hamlet of Overy sounds as if it ought to be very fertile and it proved to be so. The water plants beside the Thame were in excellent condition and a nearby ditch had Trifid Bur-marigold and Water Plantain, as well as the ever-delightful Water Forget-me-not. A damp cornfield had a rich supply of arable weeds: members were struck by the unexpectedly pleasant aroma from Creeping Thistles, which were a good source of insect observations including a number of Small Copper butterflies. The Thames-side path was less productive but colour was provided by Purple Loosestrife and the first Michaelmas Daisies. A few of members of the group explored Bridge End Meadow and found the rare Greater Dodder and Flowering Rush, surely one of our most beautiful wild flowers. Lunch in the Fleur-de-Lys completed a very pleasant morning.

On September 15th we set off in golden sunshine. From under the mellow walls of the remains of Hurley Priory, the party of naturalists proceeded to the Thames, and walked through riverside meadows and paths until Frog Mill was reached. From there, the route was along the lane to the main road, which was crossed to a track going fairly steeply up hill. In time, the Hurley Chalk Pit, a BBOWT reserve, was reached, and there was time to explore. The turf was still colourful, with Clustered Bellflowers and the occasional Autumn Gentian. Stands of Common Agrimony, now in fruit, were a hazy crimson colour. The Solitary Amanita fungus did not live up to its name – several were seen, with little spikes on the tops of their caps. As the group moved away, the sky clouded over, but the rain held off, and there were good views over the Thames Valley. The hedgerows beyond the Dew Drop Inn were rich in other fungi, among them the Shaggy Parasol, the Magpie Inkcap and the Sulphur Knight – the last-named giving off the smell of coal-gas, almost nostalgic now. Colin Dibb led the way, and had found a good and inexpensive pub for lunch in Hurley, for those who needed it.

On 20th October, nine members met at what had been the Coach and Horses pub on a brilliantly sunny morning after the first serious frost of the autumn. The route chosen by Chris Bucke followed an apparently little-used path through The Leas, down to the Old Mill, over the Blackwater, then meandered in Bramshill Plantation, emerged at Well House Farm and returned to Farley Hill via Jouldings Farm. Over 30 species of plants were found in bloom and a very wide variety of fungi. Spectacular shows of Holly, Guelder Rose and Spindle fruit indicated the advance of autumn. Few birds were seen, prominently Buzzards at the start of the walk. Recently disturbed land in Bramshill Plantation provided a good display of Blue Fleabane and there were good specimens of an unidentified hawkweed beside the path approaching Well House Farm. Nourishment was provided by Blackberries, not yet claimed by the devil, and Sloes, sweetness taking over from tartness as the season progresses. Serious nourishment was obtained, in very pleasant surroundings, in the Magpie and Parrot at Shinfield.

Chris Bucke was the leader again on 17th November, when three intrepid members explored the eastern end of Greenham Common and a good deal more of Crookham Common on a cool, damp and breezy morning. The conditions were less than ideal for bird watching or for detailed examination of plants but a good number of interesting observations were made. Several species of fungus were in good condition still including many puffballs, *Tricholoma* species including blewits, which the leader ate later with considerable pleasure, and various waxcaps. The trio paused for some time on finding a small group of a bright yellow species, quite possibly *Clavulinopsis corniculata*, growing in short turf. Recent conditions had obviously favoured the growth of mosses and lichens. The latter would be worthy of further study in more clement conditions. Not unexpectedly, there were few plants in bloom but the gentle spread of Heather and Dwarf Gorse over the exposed gravel areas was noted. Several bushes of Gorse were in good bloom, confirming that “when gorse is out of bloom kissing’s out of season”.

The final walk of the season was going to be on a Thursday. On the very cold morning of 16th December, leader Gordon Crutchfield valiantly cycled the 4 miles to Gallowstree Common – but after waiting on his own for 15 minutes, he returned home.

INDOOR MEETINGS 2010

Ricki Bull

5th January – Derek Gow – Beavers

Meeting cancelled due to bad weather.

19th January – Dr. Brian Knights – Fishy Tales of Eels

The broad outline of Dr. Knights' talk included the biology of eels, eel fisheries and aquaculture, concerns about falling recruitment and stocks, possible causes and the management of eels.

Dr Knights informed the group of the life cycle of eels from eggs to *leptocephali*, glass eels, elvers, yellow eels and to silver eels and then spawning. Aristotle believed that eels generated spontaneously from the earth. One of the many reasons for this is that even to this day, except in the laboratory, no one has seen eels spawning or in the state of preparedness for reproduction. This arises because the mature (silver) eels migrate to the Sargasso Sea for spawning and on their way appear to develop the necessary sexual organs for reproduction. Tracking of silver eels has been assisted in recent years by the use of pop-up archival tags which record both temperature and salinity of the environments in which the eels are migrating. After spawning the *leptocephali* migrate back to the area via the oceanic currents.

Eel fishing has occurred since pre-history through the use of a variety of tools, nets and traps. The Thames eel fisheries are recorded in the Domesday Book since the mill owners had to pay rent to the landowners for the traps which they set up.

Eel farming has developed in more recent years and it has been found that best growth occurs at 25°C. Unfortunately eels cannot be bred for sea stock* and therefore glass eels are needed. These are in demand for farms both here and abroad and leads to current concerns: over-fishing of both eels and glass eels leading to dangerously low European stock level. In addition eel stocks are threatened by pollutants, a warmer Sargasso Sea, loss and degradation to habitats, migration barriers including turbine damage and diseases. The options for improved management of eels include using eel passes in migratory streams and rivers.

The members certainly left the meeting far better informed about eels from this stimulating talk.

* *Sea stock*: a population of fish associated with a hatchery. A hatchery stock is spawned and reared in a hatchery before release. Historically, hatchery stocks were often transferred among hatcheries, but this practice is now less common.

2nd February – Frances Watkins – The Canarian Flora

Frances Watkins gave the background meteorological and geological information of the Canary Islands. The weather is dominated by Northeast trade winds although an East wind from the Sahara dominates the more eastern of the islands. There is a temperature inversion so that instead of the temperature dropping as the land rises above sea level, as is normal, the opposite happens between 800 and 1000m above sea level, where there is often a layer of cloud resulting in an area of cloud forest on the islands whose lands reach this height. The islands' geological history, at least for the eastern islands, is of a possible breaking off from the African continent and being carried outward by plate tectonics. The same may have happened for the western islands or they may have risen from the sea floor.

Dr Watkins talk focussed on Tenerife and La Gomera where there has been an attempt to make lower areas fertile through irrigation channels and terraces. In the xerophytic zones one finds succulents such as the endemic *Euphorbia canariensis*. Euphorbias occupy the ecological niche which cacti use in the

New World. Plants here survive through the adaption of swollen stems and hairy or small leaves. *Echium aculeatum* and *Kleinia neriifolia* are also typical of this area.

As one ascends in height there is a change in vegetation. In the *Fayal-brezal* of Gomera and Tenerife, *Erica arborea* exists as scrub and both *Myrica faya* and *Aeonium subplanum* can be found. The first of the evergreen forests begin in this area.

The true cloud forest (*laurisilva*) is similar to sub-tropical woods. The cloud condenses onto leaves and drips to the forest floor. *Geranium canariense* is part of the ground flora while many of the laurel family, *Ilex canariensis* and *Viburnum tinus* ssp *rigidus* also can be found. At the very peak of *el Teide* the endemic violet, *Viola cheiranthifolia*, and *Echium wildpretii* can be found.

Because tourist and gardeners have introduced plants there are many different varieties planted as street and garden plants. Trees such as the Breadfruit tree (*Artocarpus altilis*), Screw-pine (*Pandanus utilis*), *Hibiscus rosa-sinensis* and the poinsettia can be found.

Members were left with an increased knowledge of both the varieties of plants and habitats on Tenerife.

16th Feb – Edward Mayer – Can we save Swifts: Helping Swifts to Survive the 21st Century

Edward Mayer explained that Swifts are not countryside birds but live, nest and breed in towns. Modern architecture, however, excludes Swifts and laws protecting other birds do not protect Swifts.

Swifts have aerodynamic feathers that allow them to turn both tighter and faster than any other birds. Except when nesting, it is always flying and during its yearly migration can fly at 14,000m. At present there is uncertainty about whether it actually sleeps on the wing. One theory is that half of the brain can be switched off for resting. It feeds on insects (an estimate is 2400-4800 per day) and in turn is predated by Hobbies, falcons, Peregrines and cats and, when nesting, by rodents. It is a bird both faithful to its mate and to its nesting sites but in spite of its long life (6-16 years) it is in steep decline. Between 1994 and 2007 there was a 41% decline in the UK but a 55% decline in Southeast England. It was amber-listed in 2007.

Swifts may (or may not) build a nest within the nesting site. Nest material is solely based on objects picked up from the air and is bound together by Swift saliva. This nest will often be eaten by beetles or moth larvae during the winter. The growth of a Swift from the white, rather leathery egg to a chick fed by a 'food ball' was described and by 23 days the chick is quite large with a small beak but a large gape. The bird develops defensive bristles and feathers around its eyes (which are also deep-set) to protect it whilst feeding on brittle insects and whilst flying. It also develops its extremely short legs – the leg being as long as its foot and when on the ground can only shuffle along. Adults will overfeed chicks because of the vagaries of the English summer and when ready to fledge will be above the optimum weight and cannot fly. After starving for a couple of days the chick will take off and will then fly 2-3 years before coming back to breed.

Swifts nest in accessible holes but because of loft insulation, building regulations, re-roofing and demolition the available nesting sites are limited. In addition, modern architecture requires that new buildings are sealed and uses material that does not warp or decay, thus denying swifts the possibility of finding new nest sites. To determine current Swift nesting sites, the optimal time to look is at breakfast time or from tea-time to dusk. If Swifts are seen very high up, the actual nesting sites could be at a distance since they also gather for social meetings and for feeding.

When looking to provide nesting boxes for Swifts the minimum number of boxes per house is 2. If, however, there are no Swifts in the area then many boxes would be needed, preferably on the north, west or northwest side of the house. Various types of nesting boxes, both manufactured and home-made were shown along with adaptations to existing features.

More information can be found on Edward Mayer's website: <http://www.swift-conservation.org>.

2nd March – John Tyler – Glow-worms

The glow-worm is a beetle of the firefly family, over 2000 species of which exist in the world, mainly in the tropics. In Britain, we have two species of glow-worms although one, the Lesser Glow-worm has only been found in a handful of locations since 1900. They are the northernmost members of the family. Most occur in the South of England on the Downs and in the Chilterns on the scrubby chalk habitat that they prefer. The decrease in the species over the last 50 years may be related to the change in grazing use, its eating prey that has accumulated toxin, light pollution or the more fragmented habitat that now exists in its locations. Since the adult female is unable to fly, once a population is lost from an area there is little chance of its return without planned reintroduction.

The life-cycle of the glow-worm begins with 1mm eggs which themselves glow, initially because of the glue which the female produces to stick them to the surface. As they begin to grow they also produce their own 'glow.' After one month they uncoil and burst out of the egg upon hatching, darkening quickly from the initial white colour. These larvae feed entirely on slugs and snails with only an occasional earthworm, catching and immobilising their prey through nipping them, often frequently, and injecting a poison through their curved jaws which both paralyses and begins to digest the prey. When the prey has become a 'broth' the larva ingests it. The larger the prey the more poison the larva must inject, for large slugs 20-30 nips may be needed.

After feeding the larva cleans itself using an organ stored in its tail which can be distended. It cleans itself from head to tail and on all sides. The tail organ is also used to provide a trip – each of the fingers of each tentacle is covered with scales, some of which have a comb on the end for cleaning and some of which have hooks for gripping.

Glow-worms are preyed upon by few creatures - the poison it contains being capable of stopping the heart of a lizard. At night the glow-worm produces pulses of light as it walks. These gradually brighten and dim and may have originally been a warning to scare predators. During the day it has been shown that Robins avoid them by colour – John showed examples of experiments with, among other things, meal-worms which confirm this. Wood Ants clamber over the Glow-worms but do not do damage; stubby 'fingers' down each side emit a substance from which the ants immediately recoil. The only predator is the rove beetle.

It is not known what controls Glow-worm numbers. Each female produces between 50 and 150 eggs and although mites and fungi can affect the occasional larva, this is insignificant. If nothing does kill the larva, it will grow for 2 years. Upon pupation, the difference between male and female become obvious, whereas this is not so in the larval stage. The female is larger and the male has buds for wing cases, the female emerging after a week to 10 days, the male 10 days to a fortnight. The adults have no ability to feed, each relying on the fat stored up as a larva. Adult female fireflies, which look much like the larva, swing their tails from side to side as they glow – the chemical reaction being between luciferase and luciferin. This light shows as two bars and two dots and the 2 bands of the female can be turned on and off independently. The male looks more like a beetle but the special physical feature is that it has a semicircular thorax which resembles a visor over its eyes, complete with two windows which enable it to land accurately near a female, who in turn may attract up to 8 or 9 males at once.

Members went away from this fascinating lecture with hints for finding glow-worms:

- more successful in scrubby, marshy areas, the best time being between April and September, peaking in mid-June to mid-July.
- After dark, when one can no longer distinguish colours, glow-worms are more likely to be seen.

16th March – AGM & Members' Evening

After the formal business, we were treated to four short talks by members of the Society.

Heather Baker (widow of Brian Baker) – Brian Baker

Heather told of Brian's life and his association with the Reading Natural History Society, which he joined at the age of 10. Brian spent time at Reading Museum which was at that time associated with the Society and was fond of the outings of the society which were either by train, bicycle or on foot.

Brian tried to join Reading Museum upon leaving school but as he was unable to do so, he joined an accountancy firm until he was called up to the RAF in 1942. Brian was sent to the Pacific where his commander took the surrender of the Japanese in Hong Kong. During his time in the RAF he took the opportunity to collect insects and upon returning in 1947 he obtained a position in the Museum where he worked in the office until going into the labs in 1948. In October 1948 Brian met Heather.

Some of the highlights from Brian's association with the RDNHS include –

- Typing the 1st edition of the Reading Naturalist and printing it at the museum in 1951
- 1956 – mounting a three week exhibition at Reading Museum to mark the 75th anniversary of RDNHS. This included 750 bird's nests.
- 1959 – winter walks were added to the schedule and the inaugural meeting of BBONT (now BBOWT) was held.
- 1960 – Inauguration of the Fishlock prize
- 1961 – first Presidential address was given and a series of junior meetings for children of primary school age was introduced. The latter continued for 10 years.

Heather has the notes from the first meeting of the RDNHS in 1891 which she has suggested could be published in the Reading Naturalist.

Tony Rayner – Eastern Turkey – May 2009

Tony gave an account of his trip to the area to Van, Tetvan and Mount Ararat in May 2009. He encountered migrating birds, including a Syrian Woodpecker, in the garden of the hotel, as well as a Spur-thighed Tortoise on Nemrut Crater whose rim is 5,000ft above sea level. Lake Van, one of the largest endorheic lakes in the world (having no outlet), is strongly alkaline and full of various salts. In addition there is a crater in the area created by a meteor in 1892. The meteor left a depression 60m deep with a diameter of 35m.

Because of the area's proximity to Iran, there is a degree of prosperity brought by the traffic in drugs and fuel from Iran.

Other wildlife spotted on the trip include the Lesser Fiery Copper butterfly (*Lycaena thersamon*), *Orchis pseudolaxiflora*, *Tulipa julia*, *Primula algida*, *Merendera kurdica*, and *Iris urumiensis*.

Tony concluded with an amusing account of his hair-raising ride down from the mountains.

Susan Twitchett – Wildlife in Sabah, Northern Borneo – 2009

Borneo is the 3rd largest island in the world, the Danum Valley having only two patches of pristine lowland dipterocarp rainforest. Among the animals in and around the forest which Susan and Peter saw were the Bornean Pygmy Elephant, Gibbons, Orang-utans, Green Vine Snake and the Blue-headed Pitta. Photographs showed the darkness of the dense forest area.

In the area of the Lower Kinabatangan River were found the Wallace Hawk Eagle, Proboscis Monkeys and Long-tailed Macaques while on Mount Kinabalu, orchids, Wild Coffee, several species of pitcher plants and the famous *Rafflesia*, also known as the corpse flower, were to be found.

Unfortunately, because of the demand for biofuels, there is a conflict between the establishment of oil palm plantations and conservation of the natural forest. Susan's talk brought into focus the diversity of wildlife affected by such developments.

Malcolm Storey – Seashore Life on a Spring Tide

Malcolm described a recent visit to Portland Harbour on the lowest tide of the year. He set the scene with an aerial photo of the area and the time-profile of the tide. Dorset is peculiar in having prolonged low spring tides at a very comfortable time of day, so the tide goes out about midday and stays out until 4 or 5pm.

On the day he visited, the King Ragworm (*Nereis virens*) happened to be spawning. The ragworms usually live buried in the sand, but as a low spring tide nears its lowest level, the females produce pheromones which trigger the males into spawning. To do this they swim through the shallow water, shedding milt as they go. These are large worms, up to 30cm long, and they swim with a characteristic serpentine movement. Several worms appeared more or less simultaneously in an area only a few meters across. Unfortunately they make easy prey for seagulls and are soon gone amid much excitement from the birds. Half an hour later they appeared in a second area, but no more after the tide turned.

19th October – Catherine Side and Ray Winger – Islands of the Hauraki Gulf

The Geological formation of New Zealand was explained from the beginnings with Gondwanaland, volcanic rocks in the South Islands and the formation of the Tasman Sea leading to today's geologic formation in which New Zealand sits across 2 tectonic plates. The formation of the land and the separation from other lands allowed distinct species to develop: Moas, hunted by the Maori, and extinct by the time of the first Europeans and four species of Kiwis are but two examples.

Abel J. Tasman sighted New Zealand 127 years before Cook who first travelled to the Tahitian Islands to observe the transit of Venus but in Coromandel also saw the transit of Mercury

Typical characteristics of the animals of New Zealand include their longevity, dull colouration, and slowness of breeding. Because of the latter, the introduction of other non-native animals has been disastrous and efforts on some of the Harauki islands have been made to eradicate non-native species. Except for the bat, there are no native land mammals.

In the temperate zone of New Zealand, there are 2500 native plant species, 5800 species of fungi, 2000 ferns and 500 mosses. The forests range from Beech forests to conifer and broad-leaved forests, manuka and kauri forests. Manuka is known for its antibacterial properties while kauri was used by settlers for ship masts, building timber and resin. The unusual plant features of New Zealand plants include periodic flowering, large size, longevity, single-sex flowers, large size and a large degree of natural hybridization. In addition almost all species of plant are divaricating (wide angled branches and tangled growth in the juvenile stages) which differs from the mature form. Most are evergreen and many have brown or red leaves.

In the 1860s the social impulse was to make an 'acclimation society' – bringing birds from other places and releasing them in New Zealand. It was at this time that the house sparrow, starling, redpolls, Indian myna, and various finches (green, gold and chaffinches) were introduced.

The Islands of the Harauki Gulf (the huge bay with Auckland at the South shore) comprise twelve main islands and some smaller ones. The talk included both Great and Little Barrier Island, Kawau, Tiritiri Matangi, Goat Island, Motutapu, Rangitoto and Waiheke.

The Great Barrier Island, 45km long, is mountainous and was formed volcanically. Kauri trees more than 50m tall and living for up to 2000 years can be found there as well as 5 species of penguin, and 5 of shag.

Little Barrier is also mountainous and densely forested. It is a flora and fauna reserve and no browsing animals are allowed on it. Here the Keraru, the native New Zealand pigeon, as well as the Kaka and the Kea can be found.

Tiritiri Matangi, 3 miles offshore, was a farm which has been reclaimed to return to native forest. The Takahe, the largest of the rail family has been part of an assisted breeding program. Wattlebirds whose origins and relationship to other passerines is obscure, and that only have limited flight. Other birds present include the Piwakawaka, or fantail, which has adapted to the conditions so well that they have several broods when the conditions are right; and the Tui that can imitate human speech with their individual calls (having the unusual feature of 2 voice boxes).

Goat Island is a one hectare marine and scientific reserve. Having had large fish stocks, it was reduced in the 1950s and 60s due to fishing and collecting. In 1975 its coastal seas became the first marine reserve not only in New Zealand but in the world. In addition New Zealand flax and many epiphytes can be found here.

Rangitoto and Motutapu are also volcanic, perhaps not surprisingly so when one considers that Auckland itself has about 50 volcanic cones and craters in its urban area. Goats have been eradicated as well as fallow deer, the eradication campaign from 1990-96 also including stoats, rabbits, mice and hedgehogs. Rangitoto is short of water and the Pohutukawa, the New Zealand Christmas tree (for its season of Christmas flowering) is a symbol of the island. Motutapu, semi-detached from Rangitoto is an older land. There were military buildings on the island, which is reverting to native forests. Mangrove swamps, mamaku (black tree fern) and whau, the lightest wood in the world and one used for the Maori fishing boats, all grow there.

Kawau Island was one of New Zealand's earliest mining ventures (manganese and copper). It became the island home of one of New Zealand's most colourful politicians, Sir George Grey, who created a botanical and zoological park.

Catherine's talk and Ray's photos convinced many of the audience that the islands were of great interest to naturalists and places of beauty for travellers.

2nd November – Paul Stanbury – Madagascar

Madagascar is the fourth largest island in the world, approx 2.5 times the size of the UK. 80% of its wildlife is endemic, a result of its split 165m years ago from Africa. The weather fronts come in from the East, giving rain forests on the Eastern side, but the mountains in the middle lead to drier conditions on the central highland plateau and far drier and hotter weather on the western side – spiny deserts in the south, drier forests in the north.

Over 90% of the natural vegetation on the island has been destroyed, leaving very poor conditions for its 16 million inhabitants. The main cause for concern for Madagascar wildlife is fire with more than 50% burnt each year. The soil is thus sandy and poor as rain washes the topsoil away. The highlands are mostly deforested and turned into rice paddies and most wildlife is restricted to specific areas.

The areas covered in the talk range from the Ranomafana National Park on the eastern slope of the highlands to the Ranomafana National Park is the best-known national park on Madagascar, created after the discovery of the Golden Bamboo Lemur in 1986. Other lemurs there include the Greater Bamboo Lemur and the Milne-Edwards' Sifaka which is the largest lemur in Ranomafana and able to leap more than 10m from one tree to the next. Lemurs were the first of the primates to evolve but were out-competed by the apes and true monkeys. Because these did not arrive on Madagascar, the lemurs survive on the island.

There are 8 carnivores on the island all related to civets and mongooses. Most prey on small mammals, eggs and birds. Bird in the area include the Madagascar Pygmy Kingfisher and the endemic families of Ground Rollers. There are interesting insects such as the Giraffe-necked Weevil and the Comet or

Madagascar Moon Moth whose wingspan can be 20cm with tail length 15cm. In addition the Golden Orb spider spins the strongest silk in the animal kingdom with its webs seen hanging high from the telegraph poles. More than 340 different species of reptile, 90% of which are endemic, include half the world's chameleons but no poisonous snakes.

On the Hawkes Plateau there are huge granite inselbergs where Isalo National Park can be found. This is a drier hotter area where the Madagascar Lark, Reunion Harrier, Benson's Rock Thrush and the Madagascar Hoopoe can be found. Isalo is of particular interest for botanists with *Pachypodium* (succulent spine-bearing plants) present. Eight species of baobabs are to be found in the area.

South of Isalo is a vast dusty area before arriving at the Zombitse - Vohibasia National Park - a dry forest surrounded by deserts. The Flat Leaf-bug whose larva has tendrils on the back formed from the waxy stub but whose adult form resembles rose petals, and the Fossa, the largest carnivore on Madagascar, are both inhabitants of the area.

Members of the endemic Didiereaceae family, which have similar adaptations to New World cacti, such as small leaves and spines, but are woody rather than succulent, dominate the spiny forest on the southwest coast. Baobabs, Euphorbias and Octopus trees can all be found here as well as the Subdesert Mesite, the Long-tailed Ground Roller and the Vanger. The vanger family of birds is similar in Madagascar to Darwin's finches as they have adapted to fill the niches of other birds that have not arrived in Madagascar from the African continent. Examples are the Nuthatch Vanger, the Helmet Vanger (similar to a hornbill) and the Hook-billed Vanger (similar to the shrike family). Vaza parrots, one of the most primitive families of parrots are also resident here and offshore, a Red-tailed Tropic Bird colony can be seen.

On the southern tip of Madagascar, huge areas of spiny forest have been cleared for sisal plantations. The most famous reserve in Madagascar is the Berenty, a small tamarind forest and spiny forest protected by the family who owns the sisal plantations. Here one sees Ring-tailed Lemurs and the dancing lemurs of Berenty. These lemurs cannot run on all fours so have to hop almost crab-like over the hot sandy path to other trees. Red-fronted Brown lemur, Sportive Lemur, Giant Kua and Madagascar Flying Foxes are also seen in the Berenty.

The species of wildlife on Madagascar are too numerous to name – Asseetees, Pollarded Nightjars, Crossley Babblers, Tenrec, Aye-ayes and the Indri, the largest living lemur. The name 'Indri', in Malagasy, means 'Look over here' - so named because the Europeans heard the phrase as they were shown the Indri, thereby thinking they were being told the name. From Paul's description of the island, it would seem that 'Indri' would be the most important word to learn for a visit to such a wondrous island.

16th November – Dan Carpenter – Earthworms, the World's Most Important Organism?

Earthworm is the common name for the largest members of Oligochaeta (meaning few bristles), a sub-class of the phylum Annelida. Globally there are c. 3000 species whilst in the UK we have 26 species living freely and approximately another 40 which are found in glasshouses and other human habitats. The national collection is in The Natural History Museum in London.

Earthworms are found on all continents except for Antarctica. They are more abundant in temperate and subtropical grasslands especially near water and less abundant in tropical forest soil. There are species found in trees which create soils in the canopy, in epiphytes these species are often blue.

Earthworms can be striped, can be of various colours and can be, globally, as large as five feet long. The smallest in the U.K. is the *Microscolex phosphoreus* which makes its home in golf greens and originates from South America.

A thick cylindrical muscular tube forms the body of an earthworm. This is divided into segments, the 'head' end having a tongue which can be pulled in to seal the mouth or extended forward to probe the earthworm's surroundings. Earthworms have no lungs as their skin is semi-permeable, but may have as many as 5 or 6 hearts, seminal vesicles and central blood vessels.

Although earthworms are hermaphrodite, two are needed for reproduction. As many as 50-60 cocoons are laid each year, these having been formed by the saddle of the earthworm after exchange in the saddle of the earthworm and shed into the soil. An average of 4 earthworms will hatch from the cocoon.

There are two types of feeders among earthworm populations – leaf and soil feeders – but within the ecology of Europe, four main groups are found:

- Compost earthworms – usually stripy. These originally would have been a tropical group that would have been living on rotting vegetation.
- Epigeic – living on or near the surface of soil and feeding on leaves. These are usually red or brown and either make temporary burrows or no burrows at all.
- Endogeic – living in mineral soil and feeding on soil with organic matter in it. These are usually pale in colour – pink, grey, white or green – and make horizontal burrows.
- Anecic – feeding on leaves pulled into the vertical burrows which they make. They are large species, usually red or even black at the head end, and form middens at the burrow entrance.

Within Britain there are huge gaps in records although it is known that different earthworms are more prevalent in certain areas – woodlands, grasslands, arable fields, field margins, bogs and fens, and gardens. Epigeic worms favour colder and wetter conditions (woodlands, mires, heaths and hedges) and are usually found in more northern and western areas. Endogeic earthworms prefer warmer and drier conditions (crops, set-aside, field margins and gardens) and live under the soil, not on it. Anecic worms prefer grasslands, stable areas that are not dug where there is organic matter added only if the grasslands are grazed or cut.

All earthworms serve the purpose of altering the physical structure of soil through mixing the soil horizons – incorporating organic matter into mineral soil and increasing soil fertility whilst also aerating the structure and helping water flow through the soil. The value of earthworm-produced topsoil is estimated globally at \$25 billion per year. Through the activities of earthworms, more essential plant nutrients are released with increased physical and chemical breakdown of soil minerals as well as plant decay. Within contaminated soils it has been found that earthworms aid bio-remediation by consuming and detoxifying soil contaminants (including metals and hydrocarbons) and taking them out and binding them within the earthworm's own biology.

The Earthworm Society of Great Britain conducts research into earthworms and administers a recording scheme. More information can be found on their website: <http://www.earthwormsoc.org.uk/>. The OPAL website: <http://www.opalexplornature.org/?q=Earthwormguide> includes a guide to earthworm identification

Members left this meeting enthusiastic about the field trip on the following Saturday where they would be able to learn more about identifying earthworms with Dan.

A big "Thank you" to all the speakers.

7th Dec – Christmas Party

The Christmas Party was another resounding success. Food, contributed by all, was in abundance; Michael and Josey Keith-Lucas provided the mulled wine, and Meryl Beek was once again in charge of some taxing, yet thoroughly enjoyable quizzes.

Susan Twitchett spoke on the OPAL grant, the equipment which the society has gained from the grant and the activities for the public which these have supported. It is to be hoped that further public participation can be encouraged using this equipment.

David Cliffe provided a wonderful and theatrical rendition of 'I am the very model of a modern entomologist' (having shown enormous dedication in overcoming the difficulties caused by disruption to the rail services in order to get to Pangbourne).

PHOTOGRAPHIC COMPETITION 2010

Ricki Bull – competition coordinator

The photographic competition in its new format encouraged additional participation, all of a high quality. Others at the party were pleased to see the interpretation of the new categories and even greater participation is anticipated for next year.

The photo judged best overall was Malcolm Storey's photograph of *Gloeotrichia* (a blue-green alga) from Malham Tarn in the *Small is Beautiful* category. This category opens up a new level of images for the members and will encourage us all to look through the new microscope which the OPAL grant has provided in order to see ever more intricate details. Malcolm received a shield and book token for his win.

The new categories and the winners are:

Small Is Beautiful: photographs of anything small. It might be a micro-moth, a small fungus or insect or something so small as to require photographing with a microscope.

Winner: Malcolm Storey for a microscope photograph using dark-field illumination of *Gloeotrichia* (a planktonic blue-green alga) from Malham Tarn. (Category Winner & Best In Show)

Pattern Perfect: an abstract category with the emphasis on pattern.

Winner: Rob Stallard for a close-up of a Nettle Leaf

Little and Large: in this category the idea is to present photographs of two related subjects: one large and one small. They may be in the same photograph or in two separate photographs.

Winner: Malcolm Storey for an *in situ* photograph of Birch (*Betula pubescens*) with a microscope photograph using dark-field illumination of Birch Mildew (*Erysiphe ornata* var. *europaea*)

Against All Odds: an ecological category. Show wildlife thriving in an unlikely place.

Winner: Catherine Side for New Zealand Daisy growing at Tongariro Crossing (North Island, NZ)

Three of a Kind is for photographs of three similar subjects. Again this may be as a single photograph or three separate photographs.

Winner: Malcolm Storey for Three Spiders: Wasp Spider (*Argiope bruennichi*), *Drassodes cupreus* and *Agalenatea redii*

Nature In Action: here the photographer is challenged to submit photographs portraying some event taking place, eg predation, egg-laying, mating. Anybody for a botanical entry in this category?

Winner: Malcolm Storey for a thick-headed fly (*Poecilobothrus nobilitatus*) with Chironomid larva prey

Driven To Abstraction: a general abstract category. Photographs should display interesting shapes or colour forms.

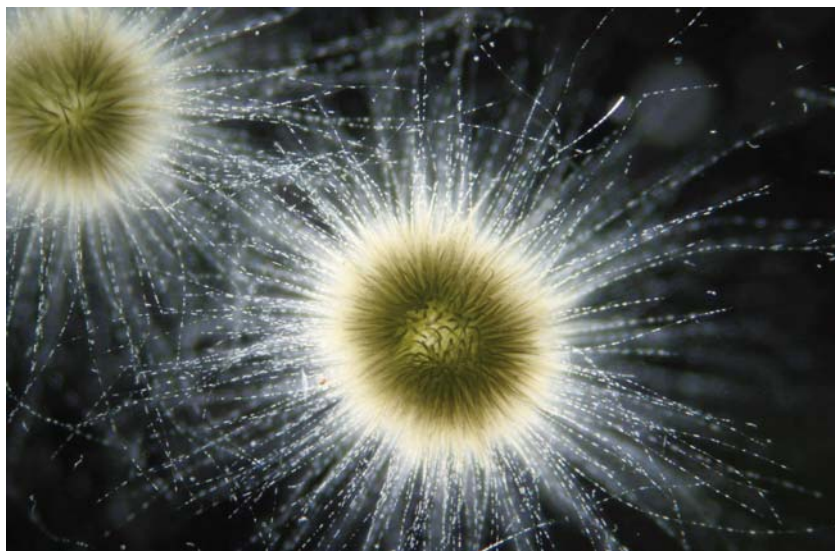
Winner: Malcolm Storey for a microscope photograph of Teliospores of Meadowsweet Rust (*Triphragmium ulmariae*)

Colour Prejudice: in this category bright colours are all important.

Winner: Malcolm Storey for Crimson Waxcap (*Hygrocybe punicea*)

A selection of the winning entries is shown opposite.

Photographic Competition 2010
winning photographs (see opposite)



Gloeotrichia (a blue-green alga) dark field microscope image
Winner: Small is Beautiful & Best Overall Entry – © Malcolm Storey



New Zealand Daisy at Tongariro Crossing, NZ
Winner: Against All Odds – © Catherine Side



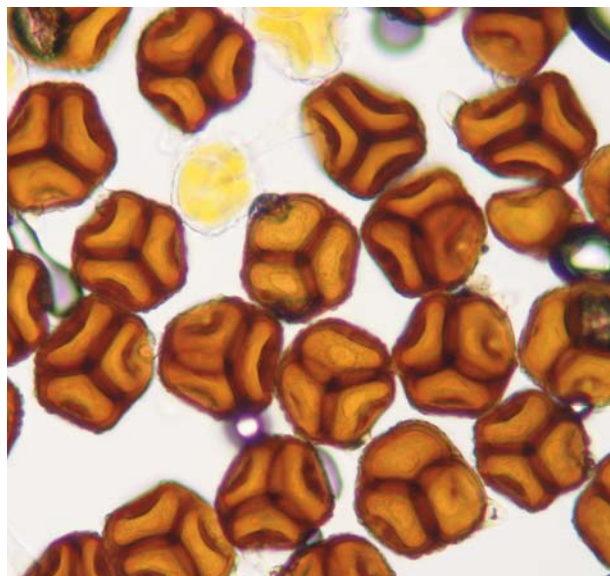
Nettle Leaves
Winner: Pattern Perfect – © Rod Stallard



Crimson Waxcap (*Hygrocybe punicea*)
Winner: Colour Prejudice – © Malcolm Storey



Thick-headed fly (*Poecilobothrus nobilitatus*) with chironomid
larva prey
Winner: Nature in Action – © Malcolm Storey



Teliospores of Meadowsweet Rust (*Triphragmium ulmariae*)
Winner: Driven to Abstraction – © Malcolm Storey

Presidential Address



Salvia officinalis
© Graham Saunders



Pomegranites from an Egyptian tomb
© Graham Saunders



Hericium erinaceus Bearded Tooth (© Lucy Barnes)
see the Mycology Report



Hericium coralloides Coral Tooth (© David Dare)
see the Mycology Report

ANCIENT MEDICINE - THROUGH THEIR OWN WORDS

PRESIDENTIAL ADDRESS – by Graham Saunders

How can plants have any healing effect on our bodies? We eat fruit and vegetables just to satisfy our hunger and do not really think of the effect on our bodies. If we're ill, we go to the doctor's and get some pills, which certainly do not have leaves and flowers, roots and stems. But you only have to think of the effect of some plants to see how potent they can be.

Monkshood contains some of the most potent poisons in the wild. If you eat this, it will kill you. And it's not the only plant that will. Hemlock was used by the ancient Greeks as an official state poison and the philosopher Socrates was sentenced to death and given it to drink. Hemlock grows abundantly by the side of the road. The well known Death Cap will kill you, and there is no known cure. In fact, a couple of years ago, two people picked this in the Ventnor botanic gardens, ate them and one died. Other plants will give you violent diarrhoea, such as Colocynth.

If we view the human body as a chemical factory, it is easier to understand how these herbs work. Luckily for us, the body is a very forgiving factory and can cope with much abuse of overeating and eating the wrong things. Like chocolate. Can we eat too much chocolate?

Similarly, if we have an internal ailment, like a headache, stomach ache or even an illness, there is a cause and chemical that can normally assist. Thus, a headache may be caused by constricted blood flow to the brain. Some herbs, called vasodilators, can increase the blood flow. Illness may be caused by viruses or bacteria. Echinacea can be used to stimulate the immune response. There are herbs that are claimed to even treat cancer, the most newsworthy being Taxol (from the bark of the Pacific Yew *Taxus brevifolia*).

Hence, it can be seen that plants can be very potent. In fact, 25% of the medicines on the market today are derived from chemicals in plants. It is likely that more will be discovered. Some of these medicines have side effects as they contain the concentrated active ingredient. The question is whether the herbs can be prepared in such a way that they can deliver the same cure. The raw plant contains many chemicals and if we take Valerian to help us sleep, we are also taking a multitude of other chemicals. Herbalists think this is a more natural way to take medicines that has been proven over millennia. Modern medicine has only really been going for around 100 years when bacteria and the causes of illnesses were discovered. Before that, medicines were used to treat the symptoms of the disease and not the cause.

Ancient Egypt

Until around 1800, very few Europeans had travelled to Egypt. Then Napoleon invaded with an army and an army of scholars. These travelled the length of the country recording what they found. You can still buy their records. The French were defeated by the British who confiscated much of their booty. The collections of artefacts came to Europe and sparked great interest amongst scholars. Over the next century, many travellers and expeditions visited Egypt and collected artefacts, including papyri. These were written in hieroglyphs and hieratic script and some were found to be medical papyri. None of them have any provenance, but are probably from tombs. People were buried with their worldly goods so they could use them in the afterlife and medical papyri might be thought to be useful.

So, what did a papyrus contain? The papyri were rolled-up scrolls, but they were divided into pages. Thus, the Ebers papyrus from 1550 BC was 20 metres long and 30 cm high, divided into 108 "pages" each of 20 to 22 lines. It had 877 paragraphs, mostly of recipes for diseases. Altogether, 6 main medical papyri, the earliest from 1950BC, have been found covering herbal cures, surgery and woman's complaints.

Some treatments covered breakage of bones, dislocations and amputations. Mummy 1770 in the Manchester Museum had the right leg amputated above the right knee and the left leg below the knee, possibly due to guinea-worm. Before the building of the first Aswan Dam in 1907, a recovery dig was carried out to rescue archaeological material. This included 6,000 mummies from cemeteries ranging from pre-dynastic to Roman. Many were found to have fractures:

Fore-arm 31%, Collar bone 14%, Thigh 12%, Skull 7%, Upper arm 6%, Face 4%.

Many of these had healed with good alignment of the bones, showing that the fracture did not cause death.

The Ebers Papyrus gives 98 diseases, then 800 herbal recipes for the cures. Medicines included vegetable, animal and mineral products. They generally have some active ingredients (like Myrrh), then a base, such as water, milk, beer, wine, honey or fat. They took their medicine as follows:

Internal diseases – A drink (dissolved in water, beer, milk or wine), a gargle, syrup (mixed with honey to make it more palatable but also honey is a potent antibacterial), tincture (dissolved in alcohol), decoction (boiled, strained)

External pain – ointment (mixed with animal fat), poultice.

Diseases of the lungs – inhalations

Skin – ointments

Eyes – drips, or ointments, or bandages

Ear – drips

Mouth – gargling

Enemas

Some recipes were mixed, pounded with cold water and left to stand “overnight in the dew” to allow the active ingredients to dissolve, others were boiled and reduced then strained to make a more concentrated medicine. All these methods are used today.

Typical were:

Schistosomiasis (*Bilharziasis* – sleeping sickness) – The disease route is from a parasitic worm which lives in water. The worm enters the skin and lays its eggs which then hatch out and develop. They then pass back into the water and find a host snail to further develop. Symptoms are haematuria (bleeding in the urine). Napoleon described the Egypt as “the land of menstruating men”, which is probably due to Bilharzia. The archaeological evidence: A calcified ovum has been found in the mummy of Nakht and antigens have been found in 15 out of 23 mummies from the Ballana Period (350 to 550 AD).

The Ebers papyrus gives us 21 remedies against haematuria. Typical is:

4 ro *inst*, 4 ro figs, 1 ro celery of the north, 1 ro *ksntj*, 20 ro honey, 1 ro grapes, 2 ro manna, 2 ro bread of zizyphus fruit, 1 ro *ibw*, 2 ro coriander are strained and taken before going to bed.

Notes: Before we all rush out to mix this up for ourselves, there are 10 ingredients, all in required proportions, 1 ro = 15cc, 3 unknown ingredients – the only place some hieroglyphs are found is in the medical papyrii, some others are doubtful translations and we are not given the part of the plant that is used. Note the ingredients are mixed with 300ml of honey, so this would have made a syrup. Also, the translation of the symptom “haematuria” could be open to many different interpretations. It is a surprisingly complex formula for 3500 years ago.

Another common ailment was malaria, the symptoms of which are a recurring fever. It is caused by *Plasmodium falciparum*. Antigens have been found in mummies from the New Kingdom to the Nubian Ballana period (1800BC to 550AD).

Another was sand in the lungs causing sand pneumoniosis (like asbestosis). Ebers has 21 remedies. Tapp (1979) analysed lung tissue from mummies and found sand present.

The contents of the Ebers are probably older. From LXVI (15) “Another remedy to make the hair grow, prepared for Shesh, the mother of his majesty the king of Upper and Lower Egypt Teti, the justified: leg of hound, njt of dates, hoof of ass, are boiled thoroughly with oil in a *dadaw* vessel and it is anointed therewith” VI dyn around 2500BC. This is like us still recommending a cure used by William the Conqueror’s mother!

This is for the **rich** of ancient Egypt. “Another to make the hair of a bald-headed person grow: fat of a lion, fat of a hippopotamus, fat of a crocodile, fat of a cat, fat of a serpent, fat of an ibex, are mixed together, and the head of a bald person is anointed therewith”

I wonder how the “doctor” collected these ingredients and whether he had them on his shelves. Can you imagine how expensive fat of lion would be? He might be tempted to use fat of domestic cat instead! Other remedies are given for diseases of the heart, stomach and urinary tract. There is a large section on eye treatments which must have been common. One treatment for a discharge is:

Frankincense, myrrh, *tntm*, and yellow ochre. Note that myrrh is an antibacterial, so this may have been effective.

Modern research has found that some of the Egyptian medicines have active ingredients:

Seeds of ricinus, colycinth, senna used as evacuants

Root of *Punica granatum* – intestinal worms

Liver – night blindness

Metallic salts – disease of the eye

Tannin containing substances – astringent

Some laxatives were used for skin diseases, exudation, eating ulcer, spotted baldness – maybe thought this unsound material needed removing from the body.

A member of the audience volunteered to try a cure for a headache. First an incantation was tried:

“Oh Isis, great in sorcery, mayest thou deliver this lady from everything bad and evil and vicious, from affliction caused by god or goddess, from dead man or woman, from male or female adversary. Oh, Re and Osiris, hear my prayer”. – Really excellent, proved many times!

Next an indeterminate greasy mixture was produced by the president, but the volunteer ran off before it could be applied. The recipe was:

Frankincense, Cumin, Fruit of *Juniperus*, goosefat, boiled and anointed.

Did the ancient Egyptian medicine work? Masali and Chiarelli studied cemetery collections from the Pre-dynastic period from Gebelen and the Dynastic period from Asyut. The mean age of death was 30 years for Pre-dynastic and 36 for Dynastic. There were very few burials of people older than 60. If I was giving this talk in Ancient Egypt, not only would the audience be much depleted, but I would also be pushing up the daisies (or palm trees!). Some people did live much longer, famous examples being Pepi II and Rameses II who both lived well into their 80s. It was thus not that people could not live into old age, but that injury and disease carried them off.

Ancient Greece

In *The Iliad*, the Greeks were camped outside Troy. Agamemnon took a priestess from a nearby temple of Apollo. This upset Apollo who sent a plague to the troops. It was quite common in the ancient world to think that the “gods” caused disease.

Hippocrates was born on Kos and lived around 430 BC. About 60 texts mainly from 420 to 370 BC have survived. The texts give the theory and practice of medicine, including pharmacy, surgery, setting bones and dislocations. He attempted to get professional recognition for doctors, as at that time, anyone could set themselves up as a doctor.

Medical theory was based around the four “Humours” of the body – Black bile, yellow bile, blood and phlegm. They were complemented (or replaced) by the four bodily conditions, cold and hot, wet and dry. Illness was caused by an imbalance and the doctor’s job was to rebalance. Women were wet and men dry.

They knew nothing of bacteria and viruses causing disease, so could only treat symptoms. They thought that a lot of disease was caused by diet. Many treatments were to get rid of the “bad” food by laxatives

or emetics, then change the diet to cure. Unfortunately, this also led to bloodletting to get rid of an excess of “bad blood”.

The **Hippocratic Oath** originated from this period.

“I swear by Apollo the healer, by Aesculapius, by Health and all the powers of healing, and to call witness all the gods and goddesses that I may keep this Oath and Promise to the best of my ability and judgement.

I will pay the same respect to my master in the science as to my parents and share my life with him and pay all my debts to him. I will regard his sons as my brothers and teach them the Science, if they desire to learn it, without fee or contract. I will hand on the precepts, lectures and all other learning to my sons, to those of my master and to those pupils duly apprenticed and sworn, and to none other.

I will use my power to help the sick to the best of my ability and judgement: I will abstain from harming or wronging any man by it.

I will not give a fatal draught to anyone if I am asked, nor will I suggest any such thing. Neither will I give a woman a means to procure an abortion.

I will be chaste, and religious in my life and practice.

I will not cut, even for the stone, but I will leave such procedures to the practitioners of that craft.

Whenever I go into a house, I will go to help the sick and never with the intention of doing harm or injury. I will not abuse my position to indulge in sexual contacts with the bodies of women or of men, whether they be freemen or slaves.

Whatever I see or hear, professionally or privately, which ought not to be divulged, I will keep secret and tell no one.

If, therefore, I observe this Oath and do not violate it, may I prosper both in my life and in my profession, earning good repute among all men for all time. If I transgress and forswear this Oath, may my lot be otherwise.”

This is similar to today.

Epidemics 24 states:

“The factors which enable us to distinguish between diseases are as follows: First we must consider the nature of man in general and of each individual and the characteristics of each disease. Then we must consider the patient, what food is given to him and who gives it – for this may make it easier for him to take or more difficult – the conditions of climate and locality both in general and in particular, the patient’s customs, mode of life, pursuits and age. Then we must consider his speech, his mannerisms, his silences, his thoughts, his habit of sleep or wakefulness and his dreams, their nature and time. Next we must note whether he plucks his hair, scratches or weeps. We must observe his paroxysms, his stools, urine, sputum and vomit. We look for any changes in the state of the malady, how often such changes occur and their nature, and the particular changes that induce death and crisis. Observe too, sweating, shivering, chill, cough, sneezing, hiccough, the kind of breathing, belching, wind, whether silent or noisy, haemorrhages and haemorrhoids. We must determine the significance of these signs.”

Typical “Greek” reasons for illness:

Xii A man dined when heated and drank too much

Book III

V Chaerion who lay at the house of Delius took a fever as a result of drinking

iii At Thasos, Pythion, who lay beyond the temple of Heracles, had a violent rigor and high fever as the result of strain, exhaustion and insufficient attention to his diet.

X Nicodemus took a fever at Abdera as the result of sexual indulgence and drinking

Xiii Appolonius at Abdera,as a result of eating beef and drinking cows' milk intemperately, he developed a slight fever at first and went to bed. He got much worse through taking a large amount of milk, both boiled and cold, both sheep and goats', and by taking generally a bad diet.

Some of the other writings give an insight into the methods used:

In Epidemics Book1 Case (ii):

"Silenus lived on the flat ground near Evalcidas' place. He took a fever as the result of fatigue, drink and untimely exercise. He started with a pain in the loins, heaviness of the head and retraction of the neck.

On the first day, stools copious, bilious and not homogeneous; frothy and dark coloured. Urine dark with a dark sediment; thirst, tongue dry; did not sleep that night

Second day: high fever, stools more copious, thinner and frothy; urine dark. Passed a restless night, slight delirium

Third day; all symptoms more pronounced. Contraction of the hypochondrium on both side as far as the navel, somewhat flabby underneath the contraction. Stools thin and somewhat dark in colour; urine cloudy and rather dark. No sleep that night, much talking, laughter, singing, could not be restrained

Fourth day: condition unchanged

Fifth day: stools unmixed, bilious, smooth and fatty; urine thin and clear; showed slight signs of understanding.

Sixth day: slight sweating about the head, extremities could no longer be warmed, anuria and retention of stools continued

Eighth day: cold sweating all over, accompanied by spots. These were red, round and small, like those of acne which did not go down. A thin copious stool, as if undigested, was passed with difficulty following a small enema. The urine was passed with pain and was pungent; extremities became slightly warm, periods of light sleep, signs of coma, loss of voice, urine thin and clear

Ninth day: condition unchanged

Tenth day: would not take drink, comatose, periods of light sleep; stools the same, passed a large quantity of rather thick urine which formed a white sediment like barley-meal on standing. Extremities again cold.

Eleventh day: died

From the beginning and throughout the illness he took deep infrequent breaths. Continuous pulsations of the hypochondrium. Age about 20.

Note that there is little information about the treatment or diagnosis of the disease, except the opening sentence.

The "Science of Medicine" describes the observation of the patient.

"Deep abscesses nor diseases of the kidneys, liver nor other organs are visible to the eye, but we can use other methods. Such means consist of observations of the quality of the voice, whether it be clear or hoarse, on the respiratory rate, whether it be quickened or slowed, and on the constitution of the various fluids which flow from the orifices of the body, taking into account their smell and colour, as well as their thinness or viscosity... A patient may be made to rid himself of phlegm by the administration of certain acid draughts and foods. Thus a visible sign is produced of some underlying disease."

More

"Some diseases are produced by the manner of life that is followed; others by the life-giving air we breathe. When a large number of people all catch the same disease at the same time, it must be something common to all; in other words, the air they all breathe. Plainly the air must be harmful because of some morbid secretion which it contains....Care should be taken that the amount of air breathed is as little as possible.

A regimen for health.

"Infants ... should be given their wine diluted and not at all cold"

The other Greek greats were Theophrastus and Dioscorides.

Theophrastus, around 350 BC, was about the first to write descriptions of around 300 trees and plants, the types of conditions they like, where they grow and what some were used for medicinally.

Pliny the Elder (AD 23 -79). Wrote 37 books on "Natural History" which was an attempt at putting down the total scientific knowledge of the day. 12 of these were *materia medica*.

Pliny was one of the great men of Rome. He was rich, powerful and had an insatiable curiosity. He travelled widely and was present when Vesuvius erupted. He was killed when he got too near the erupting volcano, either trying to rescue people or through curiosity.

His advice for a healthy life was: "Physical exercise, voice exercises, anointing and massage if carried out with skilled care. Especially beneficial are walking, carriage rides of various kinds, horse riding, which is very good for the stomach and hips, a sea voyage for consumption, change of locality for chronic disease, and self treatment by sleep, lying down and occasional emetics.By far the greatest aid to health is moderation of food."

He was effusive on Nature's gifts "There is no place where the holy Mother of all things did not distribute remedies for the healing of mankind".

He had fairly strong views on what he saw were vested interests, in this case Greek doctors:

"..Nature decreed (herbs) should be our remedies, provided everywhere, easy to discover and costing nothing. Later on, the deceit of men and cunning profiteering led to the invention of the quack laboratories, in which each customer is promised a new lease of his own life at a price. At once compound prescriptions and mysterious mixtures are glibly repeated, Arabia and India are judged to be the storehouses of remedies, and a small sore is charged with the cost of the medicine from the Red Sea, although genuine remedies form the daily dinner of even the very poorest. But if remedies are to be sought in the kitchen garden, or a plant or shrub were to be procured thence, none of the arts would be cheaper than medicine. It is perfectly true that owing to their greatness the roman people have lost their usages, and through conquering, they have been conquered. "

He also raised interesting philosophical questions which are still relevant today: "Of all the remedies derived from man, the first raises important questions and one never settled: have words and formulated incantations any effect? All our wisest men reject belief in them, although the public at all times believes in them unconsciously." – modern equivalent is prayer or wishing people luck.

Pliny describes the medicinal effects of hundreds of plants. As an example, we could have a look at **garlic**:

"It is of great benefit against changes of water and residence. Keeps off snakes and serpents by its smell. Cures bites when drunk or applied as an ointment.

External sores, skin rashes, skin diseases by poultices. Honey was commonly used in a herbal mixture as a poultice, probably with some success. It kills bacteria by osmosis.

More problematic to treat fevers, such as malaria, Although some available herbs, such as wormwood and willow were also antipyretic (reducing fever). Cummin, Cinnamon and Carob are anti-diarrhoeal, so may be effective against dysentery.

Celsus, a Roman medical writer around 30 AD, informs us that some people thought it

"necessary to lay open the bodies of the dead and to scrutinise their viscera and intestines. Herophilus and Erasistratus did this in the best way by far, when they lay open men whilst alive – criminals received out of prison – and whilst they were still breathing, observed parts which beforehand nature had concealed, their position, colour, shape, size, arrangement, hardness, softness, smoothness, relation, processes and depressions of each and whether any part is inserted into or is received into another. For when pain occurs internally, neither is it possible to learn what hurts the patient, unless he is

acquainted with the position of each organ or intestine, nor can a diseased portion of the body be treated by one who does not know what that portion is

When a man's viscera are exposed in a wound, he who is ignorant of the colour of the part in health may be unable to recognise which part is intact, which part is damaged; thus he cannot relieve the damaged part. External remedies too can be applied more aptly by one acquainted with the position, shape and size of the internal organs. Nor is it, as most people say, cruel that in execution of criminals, and but a few of them, we should seek remedies for innocent people of all future ages"

Dioscorides (Greek, 1st C AD): wrote Materials of Medicine (*Materia medica*) which contained a list of 700 plants and more than 1000 drugs. He travelled around the Mediterranean and observed plants in their native habitat and he records the effect they had when he used them as medicines.

He was critical of some of the ancient writers for

"Handing us down slapdash accounts of the properties of drugs and the methods for testing them....and confusing one drug with another". He thought it important that plants were observed at different times of the year so that doctors would be able to recognise them in their different forms. Also:

"First and foremost in order of importance is to pay proper attention to the storage and timely collection of each drug; for whether drugs are strong or weak depends strictly on whether the collection was made at the right time. Was the collection made after a dry or a rainy spell, whether the sites are mountainous, high up, breezy, cold or dry."

You must "collect fruit when ripe, seeds as they start to dry and before they drop to the ground. Extract juice when the stems are newly sprouted, saps and gums by cutting the stems when still at the peak of perfection, but roots intended for storage, dig up when the plants begin to shed their leaves. Clean roots must be immediately dried in places free from moisture. All silver, glass and horn vessels will do nicely for liquid medicines, as will earthen vessels that are not too thin".

Dioscorides provides a description for some of the plants, then the medical uses. Thus:

Sage (*Salvia* sp.)

1. "It is a somewhat tall shrub, much branched, having twigs that are quadrangular and whitish, leaves that resemble those of the quince tree, but more elongated, smaller, and imperceptibly rough like a pile of cloth, dense, whitish, aromatic, and foul tasting. At the tips of the stems it bears seed like the uncultivated sage. It grows in rough terrains

2. The decoction of its leaves and branches when drunk has properties that set the urine and menstruation in motion, draw down embryos/foetuses, and help for strokes of the sting ray. it also **darkens the hair**, it is used in wounds, it staunches blood, and it **cleanses malignant sores**. Used as a wash with wine, the decoction of its leaves and branches stops itching around the genitalia"

We can compare this with Sage in Bartram's, (a modern herbal) for *Salvia officinalis*. It is interesting to compare the similarities and differences. The similarities are in bold.

Use dried leaves.

Astringent, antiseptic, carminative, circulatory stimulant, bactericidal, antibiotic, diaphoretic, digestive, anti-inflammatory, anti-spasmodic, oestrogenic, Folk medicine associated with longevity.

Uses: **Sore throat**, laryngitis, pharyngitis, to reduce blood sugar, tonsillitis, **inflammation or ulceration of the mouth, gums and throat**, Respiratory allergy, chronic gastro-intestinal catarrh, headache, anxiety, nervousness in the aged, hot flushes of the menopause, poor memory, mental confusion.

Topical: Tea as a shampoo rinse to allay onset of **greying hair**.

(Not indicated in high blood pressure, presence of blood in the urine, pregnancy or epilepsy).

Heinrich *et al*: Sage extracts have been found to be antimicrobial. The flavonoids and phenolic acid derivatives have antiviral and anti-inflammatory activity. Sage has a reputation for enhancing memory, and has been found to have anticholinesterase activity which supports this use.

The president suggested that if at the next meeting, he looked out at people who had remembered there was a meeting on, with rows of dark haired, youthful looking people, he would deduce that some people had been trying the Sage!

Pomegranate (*Punica granatum*) also has a long history of medical use and perhaps surprisingly, the ancient uses have survived to today.

Egypt (Ebers) – intestinal worms, diarrhoea

Dioscorides – good for stomach, helps heartburn, stops diarrhoea, fluid discharges from the stomach, those who spit blood, sitz baths for dysentrics, sores of the mouth, spreading ulcers, earaches, afflictions of the nostrils, checks bleeding wounds, mouthwash . Root – destroys intestinal flatworms when drunk.

Bartram's – round, pin and tapeworms, irritable bowel, dysentery, cystitis, sore throat.

Mandrake (*Mandragorus*) had an important use as an painkiller but has fallen out of use as it was easy to overdose and kill the patient! Shepherds used it even when they weren't in pain.

Roots – good for making love potions

- Boil down roots until reduced to 1/3, give to insomniacs, those in much pain and those undergoing surgery or cauterisation, whom they wish to anesthetize
- 2 obel drunk with hydromel (honey and water) brings up bile and phlegm: too much is lethal!

Male fruit – Shepherds eat it until they are reduced to a state of stupor.

Garlic was also widely used.

Dioscorides: Intestinal flat worms, viper bites, haemorrhage, plaster for mad dog bite, clears bronchial tubes, chronic coughs, kills lice and eggs, pustules, with honey - removes birthmarks, scurf, dandruff, leprosy, with frankincense – toothaches

Bartram: antibiotic, anti-parasitic, antihistamine, Lowers cholesterol, lowers high blood pressure, bronchitis, asthma, cough, sinusitis, catarrh, eyes discharge, worms, stimulate bile, hay fever, ear infections.

Dioscorides also describes **52 medicinal wines** and how to make them, such as wormwood, myrtle, myrrh. No doubt it either cured, or if you drank enough, you get past caring!

A glamorous volunteer then helped the president display and describe the medical uses for some herbs used by the ancients and still in use today including Feverfew, Greater Celandine and Stinging Nettles.

Any herbal remedies described above should not be taken as a recommendation. Many of the so called "cures" are unproven and some are downright dangerous!

Questionnaire:

A questionnaire was given out at the end of the talk to find out if anyone in the audience was taking herbal medicines and whether they were effective. 23 members replied and remedies were tried from Chamomile for blond hair to Arnica for a kick from a horse and Valerian for insomnia.

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REVIEW OF LOCAL BIOLOGICAL RECORD CENTRES AND BIODIVERSITY RECORDING

A summary of the South East Regional Steering Group Workshop, May 2010

James A. Wearn

In early May 2010, four of the 'Honorary Recorders' of the Reading and District Natural History Society were invited to join the South East Regional Steering Group for a national review of Local Biological Record Centres (henceforth LRCs) and biodiversity recording, led by Natural England and co-ordinated by RPS Planning & Development. The first workshop took place on 25th May, at which I represented both the Society (the other three Hon. Recorders were unable to attend) and in particular, lichenology. I report here a summary of the discussions that unfolded, as they are pertinent to the regional contribution that our Society continues to make in providing biological data which enables more accurate decision-making at a variety of political and spatial scales.

Biological records are created by many members of the Society and passed to our elected Recorders, who (should), in turn, direct these records to the appropriate local and/or national databases. The contribution of voluntary recorders (all those who create the data) and LRCs (who collate, upload and manage this data, and then make it available to stakeholders in the wider community) is critical to environmental policy-making, through provision of species and habitat information from a much wider area than could possibly be covered by the few 'professional' experts (i.e. those employed to do so).

Five themes were discussed in 'break out' groups:

- A. Relationships with data providers – including improving data coverage and access via hubs such as the National Biodiversity Network (NBN).
- B. Sustainable funding for LRCs – discussion of current funding models and priorities for the future.
- C. Providing for the needs of users – what key services are required from LRCs and what activities drive them
- D. Raising the profile of LRCs – the need to raise awareness of LRCs as a key component of biodiversity knowledge.
- E. Developing tools – for improvement of record collection, analysis and availability.

While some of these topics may, at first, seem remote from the activities of our Society, I have included them all to show how species records from each individual member form the baseline upon which a complex network or information storage and retrieval is constructed. The eventual aim: to consider, and help where needed, those species that we so readily observe and jot in our little notebooks!

The workshop was attended by around 50 delegates from LRCs, local authorities, the Environment Agency, NBN, wildlife trusts and natural history societies. The opportunity for discussion of issues with a wider circle of people produced many encouraging points and varied perspectives. Inclusion of members of these wide-ranging stakeholders, from data providers to end-users, allowed in-depth discussion of the most important factors. These included: enhancing engagement, filling of gaps in data coverage (both taxonomic and geographical), sourcing of sustainable funding, and generally supporting the activities of LRCs.

A point of local note is the situation at the Thames Valley Environmental Records Centre (TVERC), a Centre which has suffered the loss of the Newbury Office as a result of the current economic climate and, as such, now has no direct presence in Berkshire. The Woodstock office is now the point of contact for submission of Berkshire and Oxfordshire records. It was recognised that such turbulence is not in the long term interests of regional record management.

The 'take home' messages for readers

1. The importance of voluntary recorders (all of you, my readers) should never be underestimated.
2. We must endeavour to interact more at local, regional and national scales to ensure that (a) biodiversity information is passed to those who need it in an effective way, and (b) issues can be discussed as they arise in order to find a solution in a resourceful manner.

3. Recorders/members should not 'sit on' records which they have amassed over the years but may have thought of no importance – submit them today – more data (in theory*) equals more informed policy-making! [*note: see '4']

4. Accuracy of information is of critical importance – a note of a species without its location or a date is useless. Photographs and/or 'voucher' specimens are important for verification of identifications, especially of species within more problematic groups (fungi, lichens, mosses, and so on).

As a recorder of often-cryptic but environmentally-indicative species in an area that has suffered the recent weakening of its LRC, I am very aware of the difficulties facing the ability of LRCs to fulfil the needs required of them; the "white space" (gaps on map with no species dots!) that exists in record coverage; and the need for streamlined engagement across the board.

Acknowledgments

I am grateful to Catherine Ball (RPS Planning & Development; workshop organiser) and Rob Pilcher (Principal Consultant Ecologist, RPS Planning & Development; Regional Manager for the co-ordination of the Review) for valuing my input towards the Review and for their contribution during the preparation of this report.

WALKING IN BASILDON PARK

Chris Bucke

On Fridays for the past three years Reading and District Natural History Society members have led natural history walks around Basildon Park as National Trust volunteers. This is a personal account of the experiences of one of the "pioneers".

Basildon Park lies to the north of Pangbourne. The northern part of the park slopes down towards the Thames: the southern part slopes down to a dry valley then rises up through yew woods to Mead Lane. Altogether there are about 400 acres of land, through which there are no public rights of way so it is a privilege, as well as a pleasure, to be able to explore the park. The terrain is varied with relatively acid, species poor grassland, ancient woodland, more recently planted woodland with some exotic species and some species rich chalk grassland in the "Hidden Valley". National Trust encourages visitors to walk round the park on waymarked paths, initially two of them, with a new, longer route introduced during 2009 and further routes under development. Our natural history walks usually follow the original routes but some groups of walkers have been keen to follow the longer routes. National Trust is encouraging us to explore new routes, which we are doing with enthusiasm.

It has proved impossible to predict how large our walking parties will be. The record is over 25 but the average is around 10. We have larger parties at the ends of the season (we start in mid-February and go on until the end of November), often when the weather is not particularly good. On fine days in the summer numbers tend to be small, presumably because there are other things to do then. Almost invariably, the walkers are not experts but are keen to be told about what they see during the walks. We have several "regulars" who do the walks several times during the season, which is encouraging. They even laugh at jokes they have heard several times before. It is particularly interesting when parties include members from overseas: comparison of our woodland with the Black Forest was fascinating as the Germans were very excited at seeing Holly growing wild but were not impressed by being told about the flavour of Garlic Mustard which they ate regularly. A spirited discussion evolved when a couple from Georgia (USA) joined a party. Sycamore in Georgia is not the same as Sycamore in Basildon Park!

It is usually, but not always, pleasant when the party includes children. Sometimes considerable effort has to be made to interest them but the provision of something to eat, like cherry plums or raspberries, often does the trick. Other children are easier to interest and often particularly observant. Being nearer to the ground than I am, they find insects, larvae and even a shrew that I had not noticed. There is the occasional embarrassing moment: I pointed out to a very enthusiastic young lady of about 11 the large number of different insects feeding on an umbel of hogweed. She was keen to have them named: I did well with hoverflies but the only name that sprang to mind for a familiar red thing was "red bonking beetle". The girl's father's face was a picture – was he going to have to interpret? (He did not – perhaps she already knew).

Our parties are not seeking rarities. The many Guelder Roses are always admired, as are Wayfaring Trees in July and August and a colony of Gromwell. The hard pearly seeds of Gromwell that remain on the dead stems well into the spring always attract attention and, as a consequence, the colony is larger now than in 2008. There are very fine displays of Bluebells in the ancient woodland areas and orchids in the Hidden Valley. In 2008 there were about 12 Common Spotted Orchids there, in 2009 around 100 and in 2010 too many to count. There are Twayblades in the same area and in 2010 Colin Dibb first noted a Bee Orchid, not seen there since 2001. I pointed out the Bee Orchid to a young couple who were carrying their infant son around the walk: the father explored and, to his obvious delight, found another, rather better specimen. There are Pyramidal Orchids there, too. According to Granville Nicholls, the park ranger, whose knowledge of the park is unrivalled, elsewhere in the park greater rarities have been noted, such as Narrow-leaved Helleborine and Violet Helleborine. Granville will lead walks during 2011, very welcome.

The chalk grassland of the Hidden Valley is a very fine area for butterflies including Marbled Whites, various skippers, Meadow Brown, Gatekeepers and Brimstones. Silver-washed Fritillaries appeared in 2009 and there were larger numbers in 2010. The woodland areas seem ideal for White Admirals but none has been seen on our walks. They do appear in Granville's records as do White-letter Hairstreaks, Purple Hairstreaks, Dark Green Fritillaries and even Purple Emperors.

Fungi always arouse interest, especially in splendid fungus years such as 2010. There were many fine "fairy rings" of Field Mushrooms and Yellow Staining Mushrooms and, late in the season, magnificent displays of shaggy parasol mushrooms. The very attractive Porcelain Mushroom appears regularly on decaying Beech trees and I have eaten Oyster Mushrooms from the same source more than once. St. George's Mushrooms appear in the spring at a point on the climb up out of the Hidden Valley where a pause to catch breath is necessary.

Quiet parties have seen Muntjac and Roe Deer, and Grey Squirrels, which are not encouraged because the woodland is managed commercially, are seen occasionally. There is abundant evidence of Badgers (parties find Badgers' latrines quite fascinating) but, not surprisingly, we have not seen any on our daytime walks. Granville Nicholls recounts having seen Badgers apparently intoxicated after eating too many mulberries from the ancient tree that is a relic of the garden of the first, Tudor, house to be built in the park. In August and September humans, also, find the luscious berries a welcome treat at the end of the walk.

The walks continue in 2011, on Fridays, starting in the Stable Yard at 10.30.

RECORDER'S REPORT FOR BOTANY 2010

Michael Keith-Lucas

The year started with a cold January, a mild spring, a rather damp summer, and a good 'Indian Summer' with outstanding autumn colours. This was followed by the coldest December on record, setting in very suddenly, before many of the trees had lost their leaves. Many of the records come from RNHS walks, sent in by Jan Haseler, but I have attributed the records to the walk leaders.

The plant names follow C. Stace (1997) New Flora of the British Isles, Second Edition, Cambridge University Press.

PTEROPSIDA (Ferns and Allies)

5 Ophioglossaceae

Ophioglossum vulgatum Adder's-tongue
26 Apr 10 Basildon Park. Hundreds in Hidden Valley. SU606772 (CB)

14 Thelypteridaceae

Thelypteris palustris Marsh Fern
31 Jul 10 Mapledurwell Fen, Hants. Known from this site, but nationally scarce. SU678523 (RG)

15 Aspleniaceae

Ceterach officinarum Rustyback
13 Apr 10 Upper Bucklebury. Young plant at base of chimney on east side of house, still thriving on 20 Feb 11. SU542683 (MS)

17 Dryopteridaceae

Polystichum setiferum Soft Shield-fern
31 Dec 10 Newhamhill Bottom, near Stoke Row. A few plants in deep shade on the hedgebank. SU684853 (CB)

PINOPSIDA (Conifers and allies)

22 Cupressaceae

Juniperus communis ssp. communis Juniper
4 Apr 10 Beacon Hill. A large colony on the west-facing hillside, west-facing slope. SU485567 (MS)

MAGNOLIOPSIDA (Flowering Plants)

32 Papaveraceae

Papaver dubium Long-headed Poppy
4 Aug 10 Ipsden, roadside bank on A4074. SU627850 (JW)

Papaver hybridum Rough Poppy
25 Jul 10 Crowmarsh. Edge of crop on a footpath. SU 619874 (JW)

Papaver argemone Prickly Poppy
27 Jun 10 South Stoke. Chalky roadside verge and crop edge. SU616836 (JW)

38 Urticaceae

Soleirolia soleirolii Mind-your-own-business
10 Jun 10 Caversham. In St. Peter's Churchyard and on site of the greenhouse at Caversham Court Gardens. SU709749 (JW)

46 Amaranthaceae

Amaranthus retroflexus Common Amaranth
21 Aug 10 Earley, Reading. About ten plants growing in a gutter of the road, next to the pavement in Hartsbourne Road. SU742712 (RG)

47 Portulacaceae

Montia fontana Blinks
22 Apr 10 Near Ufton Green. Locally abundant in a flush in a field on RDNHS walk. SU627686 (JW)
04 May 10 Sonning Common. Two large patches on Kennylands Millenium Green. Rare in Oxfordshire. SU713794 (JW)

48 Caryophyllaceae

Spergula arvensis Corn Spurrey
24 Apr 10 Goring Heath. Locally frequent on field margins. Uncommon in Oxfordshire. SU653794 (JW)
12 Aug 10 Binfield Heath. More sporadic on field margins. SU725787 (JW)

Spergularia rubra Sand Spurrey
10 Jun 10 Mapledurham. Frequent on gravelly footpath and on tracks through golf course. A new record. SU693769. (JW)

49 Polygonaceae

Polygonum rurivagum Cornfield Knotweed
22 Aug 10 Harpsden. Edge of arable field, on footpath. Uncommon. Confirmed by J. Akeroyd. SU 759795 (JW)



Henbane (©) Jan Haseler
see the Botany Report



Blackneck (©) Jan Haseler
see the Lepidoptera Report



5-spot Burnets (©) Laurie Haseler
see the Lepidoptera Report



Dusky Lemon Sallow (©) Jan Haseler
see the Lepidoptera Report



Gasteruption jaculator (© Chris Raper)
see the Entomology and Other Invertebrates Report



Endomychus coccineus Ladybird Beetle (© Chris Raper)
see the Entomology and Other Invertebrates Report



Gasteruption minutum (© Chris Raper)
see the Entomology and Other Invertebrates Report



Villa cingulata Downland Villa (© Chris Raper)
see the Entomology and Other Invertebrates Report



Stratiomys potamida Banded General (© Chris Raper)
see the Entomology and Other Invertebrates Report



Grass Snake *Natrix natrix* (© Jo Cartnell))
see the Vertebrate Report



Slow-worm *Anguis fragilis* (© Tony Rayner)
see the Vertebrate Report

64 Brassicaceae

Lepidium latifolium Dittander

11 Aug 10 Midgham. A colony on the roadside just north of the bridge. New record. SU551663 (CB)

Foudry Brook. The colony on the bank just south of the bridge to Kennet Island persists and is apparently thriving. A known locality. SU712705 (CB)

71 Primulaceae

Anagallis tenella. Bog Pimpernel

31 Jul 10 Mapledurwell Fen, Hants. Local in Hampshire. SU678523 (RG)

78 Fabaceae

Trifolium micranthum Slender Trefoil

11 Jun 10 Wallingford. Dry acid grassland in Castle Gardens. SU609899 (JW)

111 Apiaceae

Oenanthe aquatica Fine-leaved Water-dropwort

04 Sep 10 Sulham Farm. In flower, on mud beside old farm pond by ruined wall, just south of Sulham. SU 649741 (MS)

Sison amomum Stone Parsley

09 Jul 10 Earley, Reading. Verge of Lower Earley Way West. A known locality.

112 Gentianaceae

Gentianella germanica Chiltern Gentian

21 Aug 10 Warburg Reserve. A known locality. (RA & CR)

114 Solanaceae

Hyoscyamus niger Henbane

5 Jun 10, Devil's Punchbowl, SU351850 (JH)
(Colour photo on p41)

Nicandra physalodes Apple-of-Peru

28 Sep 10 Kingwood Common. Five flowering plants in the vegetable patch in a private garden. SU697821 (JW)

Physalis ixocarpa Tomatillo

19 Aug 10 Mapledurham. Weed patch at the corner of an arable field. SU684777 (JW)

Solanum vernei Purple Potato

12 Aug 10 Reading. In garden of Foxhill Lodge, Whiteknights. According to Crawley, this naturalised species was abundant on the Whiteknights Campus in the early 1990s, but now there seem to be only three specimens left. SU737724 (RG)

116 Cuscutaceae

Cuscuta europaea Greater Dodder

18 Aug 10 Dorchester-on-Thames. On nettles in a field by Dorchester Bridge. SU581938 (CB)

Cuscuta epithymum Common Dodder

08 Sep 10 Greenham Common. On gorse and heather, just east of control tower car park. SU501650 (CB)

122 Lamiaceae

Stachys officinalis Betony

18 Apr 10 Ipsden Heath crossroads, SU663844, and Stoke Row churchyard, SU678840 (JW)

128 Scrophulariaceae

Odontites vernus Red Bartsia

09 Jul 10 Earley, Reading. On verge of Lower Earley Way West. New record. SU725687 approx. (RG)

Pedicularis palustris Marsh Lousewort

31 Jul 10 Mapledurwell Fen. A known locality. SU678523 (RG)

129 Orobanchaceae

Orobanche elatior Knapweed Broomrape

20 Jun 10 Ridgeway crossroads near Britwell Salome. 15 spikes. A known site. SU680922 (JW)

O. hederace Ivy Broomrape

18 Jun 10 In Reading School grounds on corner of Craven Road and Addington Road, Reading. New Record SU725729 (MKL)

133 Campanulaceae

Campanula trachelium Nettle-leaved Bellflower

21 Aug 10 Warburg Reserve, Bix. SU721879 (RA & CR)

137 Valerianaceae

Valeriana dioica Marsh Valerian

31 Jul 10 Mapledurwell Fen. A decreasing species. SU678523 (RG)

138 Dipsacaceae

Dipsacus pilosus Small Teasel

21 Aug 10 Warburg Reserve, Bix. A new record? Not given in this locality in the Flora of Oxfordshire. SU721879 (RA & CR)

139 Asteraceae

Cirsium dissectum Meadow Thistle

31 Jul 10 Mapledurwell Fen. Locally common in Hants. SU678523 (RG)

Onopordum acanthium Cotton Thistle
27 Jun 10 Near a farm in South Stoke. 15
flowering plants on a heap of soil. SU622639
(JW)

Erigeron acer Blue Fleabane
09 Jul 10 Earley, Reading. Verge of Lower Earley
Way West. SU725687 approx. (RG)

Achillea ptarmica Sneezewort
22 Oct 10 Pangbourne, Meadow by Thames
footpath. A known locality. SU645772 (JW)

Galinsoga parviflora Gallant Soldier
21 Aug 10 Hartsbourne Road, Earley, Reading.
Recorded in Crawley as in Erleigh. SU742712
(RG)

140 Butomaceae

Butomus umbellatus Flowering-rush
18 Aug 10 Dorchester-on-Thames. A single plant
in bloom on the bank of the Thames. Local in
Oxfordshire. SU580936 (CB)

156 Cyperaceae

Carex paniculata Greater Tussock-sedge
21 Apr 10 Between Froudes Swing Bridge and
Ufton Lock. 22 tussocks, on both sides of the
Kennet Canal. SU610690 (JW)

Carex caryophylla Spring Sedge
13 May 10 Kidmore End Churchyard. On fresh
anthills. SU698793 (JW)

157 Poaceae

Catapodium rigidum Fern-grass
11 Jun 10 On a wall in Wallingford Castle
Gardens. SU609899 (JW)

Hordelymus europaeus Wood Barley
20 Jun 10 Cookley Green. A small tuft on a
footpath in Church Wood. SU687901 (JW)

CONTRIBUTORS:

Thanks are due to the following members:

(CB) Chris Bucke, (CR) Chris Raper, (JW) Janet and Jerry Welsh, (MKL) Michael Keith-Lucas, (MS) Malcolm Storey, (RA) Rod d'Ayala, (RG) Renee Grayer and (TR) Tony Rayner.

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Killick, J. Perry, R. & Woodell, S. (1998) *The Flora of Oxfordshire*. Pisces Publications, Nature
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162 Liliaceae

Allium ursinum Ramsoms
24 Mar 10 Witheridge Hill. Locally abundant, now
almost to the top of the hill, competing with
Bluebells. SU695840 (JW)

166 Orchidaceae

Epipactis purpurata Violet Helleborine
14 Jul 10 Bucklebury Lower Common. Single
plant, at roadside, east of layby. SU563694 (MS)
18 Jul 10 Dunstan Park. 5 shoots in 3 groups,
mostly in bud, but 2 flowers open. Path through
woodland S of Floral Way. SU520682 (MS)

Spiranthes spiralis Autumn Lady's-tresses
08 Sep 10 Greenham Common and Crookham
Common. Thousands in bloom over a wide area.
(JW)

Anacamptis pyramidalis Pyramidal Orchid
9 Jul 10 Earley, Reading. About 50 specimens
growing on road verge in Lower Earley Way
West. Subsequently mown by Wokingham
Council, but they have now agreed not to mow
this verge in 2011, thanks to a request from the
Earley Environmental Group. SU725687 approx.
(RG)

Gymnadenia conopsea Fragrant Orchid
31 Jul 10 Mapledurwell Fen. A known locality.
SU678523 (RG)

Dactylorhiza incarnata Early Marsh-orchid.
Cholsey. In Tony Rayner's garden.
Spontaneously naturalised. 52 spikes.
SU592868 (TR)
31 Jul 10 Mapledurwell Fen. Rare and
decreasing in Hants. SU678523 (RG)

Ophrys apifera Bee Orchid
25 Jun 10 Basildon Park. 2 plants in bloom in
Hidden Valley. Not noted there since 2001,
when, according to Granville Nicholls, there were
many dozens. *Listera ovata* and *Dactylorhiza*
fuchsii were also present. SU606772 (CB)

RECORDER'S REPORT FOR MYCOLOGY 2010

Malcolm Storey

The autumn of 2010 was the best fungus season for many years. The early start in August continued throughout September, but then rather faded in October. It never picked up again and the frosts started early in November. Those who have been foraging a long time will remember a similar pattern from those wonderful years of the early 1980's.

Perhaps it's because they represent the southern component of our mycota, but in the south the unusual species tend to appear early in the season; by the tail end of the season you mainly find the common species that fruit reliably every year.

2010 was the year of the tooth fungi! I received three email reports of them covering two different species. Two emails referred to the same colony of Coral Tooth (*Hericium coralloides*) on a fallen Beech trunk at Sulham Woods: Andy Swan on 27th August and David Dare on 10th September. Coral Tooth has its headquarters in the New Forest but is otherwise sparsely distributed across England north to a 100 year old record near Whitby.

The second was Bearded Tooth (*Hiericium erinaceus*) at Maidenhead Thicket on 19th September found by Lucy Barnes (email via Derek Schafer). Bearded Tooth has a more south-central distribution in England and is one of our very few legally protected fungi.

Finally, we found beautiful specimens of the much commoner Zoned Tooth (*Hydnellum concrescens*) at Newtown Common on 30th October on a Thames Valley Fungus Group foray.

PERONOSPORALES

Albugo tragopogonis var. *tragopogonis* (a white rust)
15 Aug 10, Holies Down, SU592800, galling basal leaves of Greater Knapweed (*Centaurea scabiosa*). (MWS)
Few British records but actually quite common.

ASCOMYCETES

Cryptostroma corticale Sycamore Sooty Bark Disease
19 Apr 10, Chalkhills, SU642777, on dead, fallen Sycamore branch. Conidia abundant, brown, smooth, 4.5-6/3.5-4µm. (MWS)

Boloniales

Camarops microspora (a pyrenomycete)
10 Oct 10, Moor Copse, Berks, large stroma on Alder. Material at Kew(M) 167331 (TVFG)
Few British records.

Dothideales

Microphaeropsis concentrica (a coelomycete)
17 Apr 10, Berry's Road, Upper Bucklebury, SU542683, Leaf spots on *Yucca* leaves, in garden. (MWS)
The commonest *Yucca* leaf-spot (previously called *Coniothyrium concentricum*). It can spread rapidly if infected leaves are not removed.

Erysiphales

Erysiphe thesii Bastard Toadflax Mildew
15 Aug 10, Holies Down SSSI, SU593798, conidial stage on Bastard Toadflax (*Thesium humifusum*), in fenced area. (MWS)
Nice to see this. First UK record was at Hartslock. This is the third British site and first Berkshire record.

Helotiales

Diplocarpon earlianum Strawberry Leaf-scorch
5 Aug 10, Runnymede, TQ003721, epiphyllous back conidiomata of *Marssonina* state on red spots on leaves of Silverweed (*Potentilla anserina*), Langham Pond.
Leaf spots: epiphyllous and on underside of midrib, largely hidden below by leaf tomentum; red with dark purple centres, sometimes dead and grey in the centre with dark purple margins; leaf soon turning yellow and dying. Leaf spots with one to several pycnidia in centre, becoming more abundant as infection progresses. Pycnidia: black, domed, fragile, developing white spore tendril. Pycnidial shield: becoming almost invisible in lactophenol once the anthocyanin has diffused away. Conidia: hyaline, curved-fusiform, 22-27/6-7µm, 1-septate with broader lower cell. (MWS)

Hypocreales

Cordyceps ophioglossoides Snaketongue
Truffleclub

30 Oct 10, Faulkland Chapel, on lawn
Presumably on buried false truffle (*Elaphomyces*)
but not investigated for fear of damaging the lawn
(TVFG)

Leotiales

Microglossum olivaceum Olive Earthtongue
23 Oct 10, grassland, Highclere Estate (Temple),
North Hants (HFG/SJS)
A rare species of unimproved grassland and old
lawns.
Conservation status: BAP species.

Pezizales

Aleuria aurantia Orange Peel Fungus
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Helvella crispa Common White Helvella
17 Oct 10, Lackmore Wood, Exlade St, (RDNHS,
id: GC)

Helvella macropus Felt Saddle
17 Oct 10, Pamber Forest, Hants, under
Alder/Oak, (TVFG)

Tuber aestivum Summer Truffle
29 May 10, Caversham Heights, SU700751, in
garden, previously found in 2009. (MS)

Rhytismatales

Spathularia flavida Yellow Fan
23 Oct 10, under larch, Highclere Estate
(Temple), North Hants (HFG/JP)
Conservation status: Near Threatened

BASIDIOMYCETES

Agaricales

Agaricaceae

Agaricus campestris Field Mushroom
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Agaricus avensis Horse Mushroom
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Agaricus moelleri Inky Mushroom
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Cystolepiota bucknalli Lilac Dapperling
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Lepiota aspera Freckled Dapperling
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Lepiota castanea Chestnut Dapperling
17 Sep 10, Nettlebed Woods, Oxon. (TVFG,
det:RAF)

Macrolepiota konradii (a parasol)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Macrolepiota mastoidea Slender Parasol
17 Oct 10, Lackmore Wood, Exlade St, (RDNHS,
id: GC)

Melanophyllum haematospermum Redspored
Dapperling
17 Sep 10, Highmoor Common Wood, Nettlebed,
Beech Wood, (TVFG)

Bolbitiaceae

Agrocybe cylindracea Poplar Fieldcap
30 Oct 10, Ladygrove Park, Didcot, SU527905,
Group of fruitbodies growing inside bowl of large
partially hollow willow stump. (Rd'A)

Clavariaceae

Clavaria incarnata (a fairy club)
23 Oct 10, grassland, Highclere Estate (Temple),
North Hants (HFG/JP&EJ)
Conservation status: Near Threatened

Macrotyphula fistulosa var. *fistulosa* Pipe Club
30 Oct 10, Newtown Common, Berks, Pine
(TVFG)

Cortinariaceae

Cortinarius amoenolens (a webcap)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Cortinarius elegantissimus (a webcap)
17 Oct 10, Lackmore Wood, Exlade St,
SU660814 (GC)
Conservation status: Vulnerable (RDL edition 1)

Cortinarius infractus Bitter Webcap
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG, det:RAF)

Cortinarius ochroleucus (a webcap)
17 Sep 10, Nettlebed Woods, Oxon. (TVFG,
det:RAF)

Cortinarius semisanguineus Surprise Webcap
30 Oct 10, Newtown Common, under oak
(TVFG)

Flammulaster carpophilus (a toadstool)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. on Beech mast (TVFG, Id:RAF)

Gymnopilus junonius Spectacular Rustgill
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Inocybe mixtilis (a fibre-cap)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG, Id:RAF)

Entolomataceae

Entoloma undatum (a toadstool)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG, det:RAF)

Lycoperdaceae

Calvatia gigantea Giant Puffball
2 Oct 10, Kirtlington Park, SP502196 (Rd'A)
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Pluteaceae

Amanita lividopallescens (a grisette)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG, det:RAF)
Conservation status: Near Threatened

Amanita porphyria Grey Veiled Amanita
30 Oct 10, Newtown Common (TVFG)

Amanita strobiliformis Warted Amanita
22 Aug 10, Well Field, Warburg Reserve, Bix
Bottom, SU717881, under broadleaved trees
(Rd'A)

Pluteus leoninus Lion Shield
10 Oct 10, Castle Hill Clump, Little Wittenham
Nature Reserve, SU569924 (Rd'A)
Conservation status: Rare (RDL edition 1)
Perhaps becoming more common?

Pluteus pellitus Ghost Shield
17 Sep 10, Nettlebed Woods, Oxon, on Beech
stump (TVFG, det:RAF)
17 Oct 10, Highmoor Common Wood, Nettlebed,
on Beech stump (TVFG, Id:RAF)
Conservation status: Vulnerable (RDL edition 1)

Pluteus salicinus Willow Shield
10 Oct 10, Castle Hill Clump, Little Wittenham
Nature Reserve, SU569924 (Rd'A)

Psathyrellaceae

Coprinellus impatiens (an inkcap)
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Coprinopsis nivea Snowy Inkcap
21 Aug 10, Warburg Reserve, SU721879, on
dung (RDNHS)
10 Oct 10, Round Hill, Little Wittenham Nature
Reserve, Oxon, SU568926 on cow dung (Rd'A)

Tricholomataceae

Asterophora lycoperdoides Powdery Piggyback
17 Oct 10, Pamber Forest, Hants, on Russula,
(TVFG)

Clitocybe houghtonii (a funnel cap)
23 Nov 10, Kingwood Common, Oxon (TVFG)

Clitocybe odora Aniseed Toadstool
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Collybia maculata Spotted Tough-shank
3 Sep 10, Upper Basildon (RDNHS, id:GC)
17 Oct 10, Lackmore Wood, Exlade St (RDNHS,
id:GC)

Hygrocybe colemanniana Toasted Waxcap
23 Oct 10, grassland, Highclere Church, North
Hants (HFG/EJ)
23 Oct 10, grassland, Highclere Estate (Temple),
North Hants (HFG/SJS)

Hygrocybe punicea Crimson Waxcap
23 Oct 10, grassland, Highclere Estate (Temple),
North Hants (HFG/EJ)
The best waxcap indicator of unimproved
grassland

Hygrophorus eburneus Ivory Woodwax
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG)

Lepista saeva Field Blewitt
16 Oct 10, Edmunds Park, Didcot. In grassland,
SU521894, Single fruitbody growing in fenceline
of park (Rd'A)
15 Nov 10, Round Hill, Little Wittenham Nature
Reserve, SU566925 (Rd'A)

Lyophyllum connatum White Dome-cap
2 Nov 10, Paice's Wood, SU587639, grassland
at edge of wood, gills discoloured purplish-brown
when bruised with FeSO₄ crystal (MWS)

Mycena corynephora
30 Oct 10, on oak leaf, Newtown Common
(TVFG)

Panellus serotinus Olive Oysterling
31 Dec 10, Holly Wood, SU527697, on dead,
fallen birch trunk, (CAS)

Rhodotus palmatus Wrinkled Peach

10 Oct 10, Osgoods Gully, SU554695, Single young specimen on fallen thin tree trunk, probably elm. Bright almost luminous pink, wrinkled cap, rolled under edge. Not quite central stipe oozing red droplets at base. Small slice of cap gave fruity apricot smell once home and covered for spore print. Very tough to cut and sticky gelatinous pellicle made slice removal difficult. (CAS)

Tricholoma terreum Grey Knight

17 Oct 10, Lackmore Wood, Exlade St, (RDNHS, id: GC)

Typhulaceae

Typhula quisquiliaris Bracken Club

30 Oct 10, Newtown Common, abundant on dead Bracken rachises (TVFG)

Boletales

Boletus calopus Bitter Beech Bolete

3 Sep 10, Upper Basildon, SU597761 (GC)

Boletus porosporus Sepia Bolete

3 Sep 10, Upper Basildon (RDNHS, id:GC)

Suillus tridentinus (a bolete)

22 Aug 10, Well Field, Warburg Reserve, Bix Bottom, SU717880, Growing under at least three Larch trees in western part of Well Field. Good numbers presumably because of ideal weather conditions. (Rd'A)

Suillus grevillei Larch Bolete

17 Oct 10, Lackmore Wood, Exlade St, (RDNHS, id: GC)

Suillus viscidus Sticky Bolete

17 Sep 10, Highmoor Common Wood, Nettlebed, Oxon. With Larch (TVFG)

Xerocomellus engelii (a bolete)

5 Sep 10, The Coombes, Berks (TVFG). Distinguished by tiny red dots in the flesh at the base of the stem. (A *Boletus chrysenteron* look-alike, previously known as *B. communis* or *B. declivitatum*)

Hymenochaetales

Coltricia perennis Tiger's Eye

30 Oct 10, Newtown Common, on oak leaf. (TVFG)

Phylloporia ribis (a bracket fungus)

10 Oct 10, Moor Copse, Berks, on base of Spindle (TVFG)
Uncommon. Base of Spindle is usual habitat.

Polyporales

Ceriporiopsis pannocincta Green Porecrust

10 Oct 10, Moor Copse, Berks, on deciduous wood, (TVFG)

Uncommon, also known from Sulham

Conservation status: Rare (RDL edition 1)

Daedalea quercina Oak Mazegill

17 Oct 10, Pamber Forest, Hants, on Oak stump, (TVFG)

Gloeoporus dichrous (a bracket fungus)

30 Oct 10, Newtown Common, Berks, Oak branch (TVFG, id:MA)

A rare bracket fungus mainly found in the south of England.

Conservation status: Near Threatened.

Hapalopilus nidulans Cinnamon Bracket or Gingerbread Fungus

7 Nov 10, Sulham Woods, Berks, Birch branch (TVFG)

Polyporus durus Bay Polypore

15 Nov 10, Little Wittenham Nature Reserve, SU568926, (Rd'A)

10 Oct 10, Little Wittenham Nature Reserve, Castle Hill Clump, SU569924, (Rd'A)

Sparassis crispa Wood Cauliflower

5 Oct 10, Ambarrow Woods, Berks, on Pine (TVFG)

Trametes hirsuta Hairy Bracket

15 Nov 10, Little Wittenham Nature Reserve, SU568926 (Rd'A)

Russulales

Hericium coralloides Coral Tooth

27 Aug 10, Sulham Wood, SU646755, 3 young fruitbodies on fallen Beech log by path (AS). Refound 10th Sept (DD) when it was in perfect condition. By 16th Sept (MWS) the largest fruitbody had been kicked or otherwise broken up. (AS, DD, MWS)

Conservation status: Near Threatened

Hiericium erinaceus Bearded Tooth

19 Sep 10, Maidenhead Thicket (Lucy Barnes via Derek Schafer).

Lactarius chrysorrheus Yellowdrop Milkcap

23 Oct 10, under oak, Highclere Church, North Hants (HFG/SK)

Lactarius fulvissimus Tawny Milkcap

17 Sep 10, Highmoor Common Wood, Nettlebed, Oxon. (TVFG)

Lactarius hyginus (a milkcap)
17 Sep 10, Nettlebed Woods, Oxon. (TVFG,
det:RAF)
Rare in this area.

Russula fellea Geranium-scented Russula
17 Oct 10, Lackmore Wood, Exlade St, (RDNHS,
id: GC)

Russula foetens Stinking Brittlegill or Foetid
Russula
17 Sep 10, Highmoor Common Wood, Nettlebed,
(TVFG)

Russula grata Bitter Almond Brittlegill
17 Sep 10, Highmoor Common Wood, Nettlebed,
(TVFG)

Russula olivacea Olive Brittlegill
17 Sep 10, Highmoor Common Wood, Nettlebed,
(TVFG)

Russula parazurea Powdery Brittlegill
3 Sep 10, Upper Basildon (RDNHS, id:GC)

Russula rosea Rosy Brittlegill
3 Sep 10, Upper Basildon, SU597761 (GC)

Russula violeipes Velvet Brittlegill
17 Sep 10, Highmoor Common Wood, Nettlebed,
Oxon. (TVFG, id:RAF)

Scytinostroma portentosum Mothball Crust
7 Nov 10, Sulham Woods, Berks, Beech log
(TVFG)
Conservation status: Rare (RDL edition 1)
Has spread greatly in recent years.

Stereum subtomentosum Yellowing Curtaincrust
23 Oct 10, on Beech log, Highclere Estate
(Temple), North Hants (HFG/SJS)

Thelephorales

Hydnellum conrescens Zoned Tooth
30 Oct 10, Newtown Common, SU476632
(TVFG, id:MWS)

Thelephora penicillata (an earthfan)
14 Oct 10, New Copse, Sonning Common, Oxon,
(TVFG)

CONTRIBUTORS

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As always I'm grateful to the Hampshire Fungus Group (Stewart Skeates) and Thames Valley Fungus Group (Paul Cook) for letting me include their records.

UREDINIOMYCETES

Uredinales

Puccinia buxi Box Rust

19 Apr 10, Chalkhills, SU642777, telia (III), on living Box (*Buxus sempervirens*) leaves.

Upper leaf surface with orange-yellow spots above hypophyllous telia, these later developing on upper surface of the leaf-spot so as to become amphigenous. (MWS)

Puccinia kusanoi (a bamboo rust)

5 Aug 10, Braywick Nature Centre, SU89557690, hypophyllous uredia on Dwarf Bamboo (*Pleioblastus humilis*), by pond in wildlife area. Uredospores: with 3-4 subequatorial pores. Neither uredoparaphyses nor teliospores seen. (MWS)

Puccinia longicornis (a bamboo rust)

13 May 10, Bowdown Woods BBOWT Reserve, SU505654, hypophyllous uredia with an occasional telia on Broad-leaved Bamboo (*Sasa palmata*).

Uredia: pale rusty-brown, pustular, hypophyllous, covering the base and often extending over half the leaf on heavily infected leaves.

Uredoparaphyses: <92/<12µm, capitate, hyaline, wall 2-4(6)µm thick at apex. Telia: pale brown, pustular, hypophyllous. Teliospores: 2-celled, narrow, thin-walled and pale brown under microscope, with extremely long pedicels (like a string), germinating, often with long beaks; some chestnut brown, thicker-walled spores also present. (MWS)

RECORDER'S REPORT FOR LICHENS 2010

James Wearn

Reflecting upon the International Year of Biodiversity, I believe that many international achievements (climate change talks aside!) were made, especially as I see the 'front line' work at RBG Kew on a daily basis. However, this may seem, in the eyes of some of our Society's members, far removed from our little (though not-so-little when attempting good record coverage) patch of Berkshire and neighbouring counties. Do not despair, I have very encouraging news from Newbury and London.

Newbury and London

In March 2010, I was called upon by Newbury Town Council (NTC), in my capacity as Recorder of Lichens, to aid their Wildlife Management Plan by creating a baseline report on the status of the lichen community, and species therein, within the ground of the historic Newtown Road Cemetery in Newbury. NTC had spotted my webpage (so thanks again, Chris Raper, for putting that online for me!) during the stage of enlisting specialists, from entomologists to zoologists, in order to create a comprehensive Plan.

Thirty six lichen species were recorded, including a couple of particular interest (see Selected Records, below, complete data set submitted to NTC). The site was dominated by lichens that form a thin crust upon the surface which they inhabit (crustose lichens), such as the genera *Caloplaca*, *Lecanora* and *Verrucaria*. Far fewer leafy (foliose) lichens were recorded, as is typical at urban sites. In addition to species information, I included management recommendations sympathetic to the lichen community at the site. Site management is critical to the long term survival of lichens as weeds and grass, if left unchecked around the bases of gravestones and tombs will overshadow the lower community of lichens living near the bases of the stones where greater dampness prevails. Ivy and moss also encroach quickly upon areas of stone inhabited by lichens and must be removed. Other than this lichens benefit from being left alone for centuries. Moving of headstones disrupts microclimates (specific levels of insolation, moisture, humidity, etc.) and ruthless measures of weed control can devastate lichen communities in no time at all.

The Chair of the Friends of Newtown Road Cemetery (FNRC) was most helpful and enthusiastic, taking time to guide me around the cemetery, which had been closed for 10 years due to health and safety reasons. Both FNRC and NTC were supportive of a venture that would increase awareness of the cemetery, such that my suggestion of a lichen walk was met with much positivity. It was agreed that it would be a joint walk with FNRC (March 2011), including local historical and lichenological emphases.

A review of Local Biological Record Centres and biodiversity recording, led by Natural England, is taking place in the UK and I attended the South East Regional Steering Group Workshop in May 2010 (for details, see Wearn (2011a) in this issue). "This has brought to the fore the importance of multi-directional communication between 'experts' (who are, in fact, often 'amateurs' [e.g. our recorders]), who create records, and the end users for whom they are of particular significance for policy development" (Wearn 2011b). It is reassuring that NTC is embracing this exchange of information. The Newbury example also demonstrates that internet presence of local recorders, as well as national organizations, can aid the tailoring of habitat/site management policies to lichens (or any other group of organisms). Forging and maintenance of close relationships at the local scale is crucial to support this process from the bottom up.

Caloplaca crenularia

1 Aug 10, Newtown Road Cemetery, Newbury, Berkshire, SU470661 (JAW) (voucher: Wearn L136)

This distinctive species is listed as 'occasional' in Berkshire (Seaward 2005, p. 1244). In the cemetery, it was found only on the top and base of a single, large chest tomb, and only on the sheltered region nearest to the boundary wall,

although in some abundance on this single tomb top. The tops of chest tombs are frequently the most interesting habitats, lichenologically, because their horizontal surfaces are often slow to dry out (Gilbert 2000). This species has a distinctly western distribution in England. In 1986, it was recorded by Francis Rose at Woolton Hill, approximately four miles south-west of Newbury (just over the border in Hampshire).

Cladonia fimbriata

19 Sep 10, Owlsmoor Bog, Wildmoor Heath Nature Reserve SSSI, Berkshire, SU849631. (RG)

There are 33 species of *Cladonia* included in the Flora of Berkshire (Seaward 2005). This is one of the more common species, which can be found on rotting wood, earth, humus patches on old walls and amongst mosses. It is distinguished by having slender podetia, which terminate abruptly to a cup shape, such that the whole podetium resembles a miniature golf tee, up to 1.5 cm tall.

Fuscidea lightfootii

13 Feb 10, on live branches of *Betula*, Bucklebury Upper Common, Berkshire, SU529694, confirmed by Neil Sanderson prior to submission. (MWS) (voucher: MWS 13/02/2010[A])

A good observation of a species that is rarely recorded in Berkshire (I have only recorded it once in the county, at Inkpen in March 2009). It is sometimes confused with *Amandinea punctata*, though the crustose thallus of *F. lightfootii* is thicker, often distinctly granulose/warted and blue-green in colour. Ascospores also differ (constricted at the middle in *F. lightfootii* and hyaline, only turning brown when quite old, and are generally smaller than those of *A. punctata*). The ascus apex of *Fuscidea* species turns blue strongly with iodine treatment. The species is usually found near boggy sites and streams.

Lecanora sulphurea

1 Aug 10, Newtown Road Cemetery, Newbury, Berkshire, SU470661. (JAW) (voucher: Wearn L137)

This species is found on nutrient-enriched acid rocks and walls and often parasitizes *Lecanora* or *Tephromela* species. Yellowish green thallus; apothecia immersed, ± concolourous with thallus when young, becoming black with a pale grey pruina.

Fay Newbery has been learning lichenology rapidly and has been out recording with lichenologist Ivan Pedley. I include below a list of 26 species from Christ Church, Reading, Berkshire, which she recently passed to me.

Records: Fay Newbery (no vouchers), 7 June 2010, altitude 65m, SU721721. No gravestones, boundary wall (bw), church (ch) and tree (*Acer* & *Taxus*) records.

*Caloplaca arcis** (wall); *Caloplaca citrina* s.s. (ch); *Caloplaca decipiens* (ch); *Caloplaca flavescens* (ch); *Caloplaca flavocitrina* (ch); *Caloplaca teicholyta* (ch); *Diploicia canescens* (ch); *Lecanora chlarotera* (*Acer*); *Lecanora dispersa* (ch); *Lecanora symmicta* (ch); *Lecidella elaeochroma* (*Acer*); *Lecidella stigmatia* (ch); *Lepraria incana* s.s. (*Taxus*); *Lepraria lobificans* (*Taxus*); *Parmelia sulcata* (*Taxus*); *Phaeophyscia orbicularis* (*Taxus*); *Physcia adscendens* (ch, *Taxus*); *Physcia tenella* (*Taxus*); *Physconia grisea* (ch); *Protoblastenia rupestris* (ch); *Punctelia subrudecta* (*Taxus*); *Tephromela atra* (bw); *Toninia aromatica* (ch); *Verrucaria hochstetteri* (bw); *Verrucaria nigrescens* (ch); *Verrucaria viridula* (ch).

**Caloplaca arcis* is a member of the *Caloplaca citrina* group and under-recorded due to confusion with the latter species.

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Acknowledgments

I thank Jan Haseler, Fay Newbery, Renée Grayer (RG) and Malcolm Storey (MWS) for submitting lichen records. On behalf of the lichens in Newbury, I extend thanks to Newbury Town Council (particularly Steve Attrill, with whom I have communicated frequently during the past year) and Elizabeth Capewell (Chair of the Friends of Newtown Road Cemetery) for her time and enthusiasm from which the joint walk was spawned.

RECORDER'S REPORT FOR LEPIDOPTERA 2010

Norman Hall

Up to mid-August 2010, the weather was quite good for butterflies and moths. The winter had been cold, good for keeping predators away and reducing energy consumption when overwintering. Judging by the rosaceous trees, especially the plums and cherries where the different species act as a sort of floral clock, Spring seemed to arrive about two months later than it had done in the warmest winters of the last decade. All the normally early-flowering species were held back and everything flowered together at the end of March. The weather was then quite good for lepidoptera in late Spring and early Summer, but it broke down in late August as a series of depressions came and settled in the North Sea bringing weather generally unfavorable to both the moths and to ourselves. It was particularly unfortunate that the weather started to break down just before our special week of events at Basildon Park, beginning August 24th, for which we had won an OPAL grant. We had more than enough insects to show the public, but fieldwork, such as sweeping, was limited by wet vegetation and cold nights produced few moths and no lepidoptera at all were found new to the park. We must hope for better weather next year.

Many of the records in the systematic list below are from the following sites, for which I give here a full name and OS grid reference. It should be obvious what corresponds to the slightly abbreviated names used in the list itself:

Chalkhills, formerly Bozedown Vineyard, Whitchurch-on-Thames SU640778; Dinton Pastures Country Park SU782717; Jan Haseler's garden, 99 Westwood Road, Tilehurst SU666742; Norman Hall's garden, 44 Harcourt Drive, Earley SU735709; Paices Wood (Aldermaston) SU5863; Padworth Common SU618647; Greenham Common SU499652; Snelsmore Common SU462711; and Tony Rayner's garden and 3-acre field, Red Cow (Cholsey) SU592868. For other sites full names and OS grid references, where known, are given in the list.

For common butterflies, I have given only earliest and latest dates, which I hope will be useful in studies of phenology. The date range just for Red Cow is also given, because this is a large site which has been monitored since 1986, so that year-on-year data is more comparable.

For the national status of a species I am using the terms used in *Field Guide to the Moths of Great Britain & Ireland* by Waring & Townsend (qv for definitions)

Systematic list (Bradley number order)

MICROPTERIGIDAE

0005 *Micropterix calthella* (a jawed micromoth)
9 May 10, 10, Hungerford Marsh BBOWT Reserve SU333687 (JH/RDNHS)
a tiny dark shiny moth with functional jaws, which often sits in buttercup flowers feeding on the pollen, often in numbers. Unless you look carefully you may dismiss them as tiny beetles.

ADELIDAE

0147 *Nemophora metallica* (a long-horn moth)
15 Aug 10, 1, The Holies SU594799 (JH/RDNHS)

ZYGAENIDAE

0170 *Zygaena trifolii f. palustrella* Five-spot Burnet (Local)
5 Jun 10, 3, Kingstone Down SU285822 (JH)
First confirmed record since 1934. (det. John Langmaid)

LIMACODIDAE

0173 *Apoda limacodes* The Festoon (Nb)
2 Jul 10, 1, Hartslock BBOWT Reserve SU617795 (JH)
2, 7 & 9 Jul 10, singles, Red Cow (AR)

TINEIDAE

0200 *Psychoides filicivora* (an adventive colonist)
13 Jan 10, 1, Repton Road (Earley) (M. Calway).
Emerged from ferns brought indoors from the garden. The larvae make cases from, and feed on, the sporangia of ferns (e.g. Male Fern), and can have several generations per year. It spread into Berkshire from the south coast in about 1990. A similar better-known single-brooded species, *P. verhuella*, feeds on *Asplenium*, but appears to be uncommon in Berkshire.

GRACILLARIDAE

0285 *Caloptilia azaleella* Azalea Leaf Miner. (an adventive colonist).

31 Jul 10, 1, Westwood Road (Tilehurst) (JH). (On *Azalea*)

0310 *Callisto denticulella* (a micro-moth)

23 May 10, 1, Emmer Green (JHFN). New to garden. (On *Malus*)

YPONOMEUTIDAE

0409A *Argyresthia trifasciata* (an adventive colonist)

From 1-5 Jun 10. Reported from Harcourt Drive (Earley) (NMH), Westwood Road (Tilehurst) (JH) and Padworth Common (NMH). (On garden conifers)

0412 *Argyresthia pygmaeella* (a small ermine moth)

25 Jun 10, 1, Dinton Pastures C.P. (NMH); 9 Jul 10, 1, Snelsmore Common (NMH)

0473 *Acrolepiopsis assectella* Leek Moth (pRDB3)

28 Oct 10, 1, Westwood Road (Tilehurst) (JH) New for garden; 30 Oct 10 (larvae/pupae), 13-19 Nov 10 (adults), 4 bred, Emmer Green (JHFN) A serious pest which is spreading north.

GELECHIIDAE

0728 *Monochroa cytisella* (a micro-moth)

9 Jul 10, 1, Snelsmore Common (NMH); Padworth Common (NMH)

TORTRICIDAE

0946 *Aethes rubigana* (a cochyliid moth)

9 Jul 10, 4, Snelsmore Common (NMH)

13 Jul 10, 1, Padworth Common (NMH)

0989 *Aphelia paleana* Timothy Tortrix

12 Jun 10, 1, Westwood Road (Tilehurst) (JH)

14 Jun 10, 1, Winterbourne Wood SU4471 (JL)

25 Jun 10, 1, Dinton Pastures C.P. (NMH)

1054 *Acleris cristana* cf. *f. subfulvovittana*

5, 10 & 25 Feb 10, singles, Emmer Green (JHFN) A well-marked and colourful form.

Many *Acleris* species, overwinter as adults, and many have a wide spectrum of forms.

1144 *Epinotia signatana* (a tortrix moth)

4 Jul 10, 1, Emmer Green, Crawshay Drive SU719773 (JHFN).

1237 *Pammene germana* (a tortrix moth) (Nb)

9 Jul 10, 1, Snelsmore Common (NMH/BMG)

PYRALIDAE

1292 *Calamotropha paludella* (a pyralid) (Nb)

23 Jun 10, 1, Padworth Common (NMH); 9 Jul 10, 1, Snelsmore Common (NMH)

1316 *Catoptria falsella* (a pyralid) (Local)

9 Jul 10, 4, Snelsmore Common (NMH/BMG); 13 Jul 10, 1, Padworth Common; 18 Jul 10, 1 Harcourt Drive (Earley) (NMH)

1321 *Thisanotia chrysonuchella* (a pyralid) (Nb)

15 May 10, 6, Lardon Chase SU588809 (JH)

1358 *Evergestis pallidata* (a pyralid moth) (Local)

From 11 Jul 10 - 21 Aug 10. Reported from Paices Wood, Aldermaston (JL), Moor Copse (JL) & Harcourt Drive (Earley) (NMH).

1366 *Pyrausta nigrata* (a pyralid moth) (Local)

27 Jul 10, 1, Bozedown (NMH); 7 Aug 10, 6, Bozedown (NMH)

1370 *Sitochroa palealis* (a pyralid moth) (Nb)

7 Aug 10, 1, Bozedown (RDNHS)

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

25 Jun 10, 1, Dinton Pastures C.P. (NMH)

1396 *Mecyna flavalis* (a pyralid moth) (pRDB2)

2 Jul 10, 2, Hartslock BBOWT Reserve (JH); 27 Jul 10, 32 by day, Bozedown (NMH); 7 Aug 10, 45 to MV, Bozedown (NMH), 15 Aug 10, 20, The Holies SU594800 (JH/RDNHS) The strength of the colony at Bozedown was not formerly appreciated (NMH)

1398 *Nomophila noctuella* Rush Veneer (Migrant)

From 2 Jun 10 - 30 Sep 10. Reported from Greenham Common (NMH), Paices Wood, Aldermaston (JL), Harcourt Drive (Earley) (NMH), Crookham Common (NMH), Westwood Road (Tilehurst) (JH) & Swallowfield (JH), but fewer in number than in most years.

1441 *Oncocera semirubella* (a pyralid moth) (Nb)

7 Aug 10, 5, Bozedown (RDNHS); 15 Aug 10, 1, The Holies SU594798 (JH); 4 Sep 10, 1, Lardon Chase (National Trust) SU586809 (BMG); 7 Oct 10, 5, Greenham Common (NMH). Apparently increasing in numbers. The October date at Greenham Common is the latest known to Tony Davis, the organiser of the National Pyralid and Plume Recording Scheme (albeit by a single day). He tells me that there may be only one extended generation (NMH)

1443 *Pempelia genistella* (a pyralid moth) (Na)

13 Jul 10, 1, Padworth Common (NMH); 5 Aug 10, 1, Crookham Common (NMH)

There have been only 2 previous records in VC22.

1461 *Assara terebrella* (a pyralid) (naturalised)

4 Jun 10, 1, Harcourt Drive (Earley) (NMH). (In spruce cones)

1465 *Nephoterix angustella* (a pyralid) (Nb)
20 Aug 10, 1, Harcourt Drive (Earley) (NMH). (On
spindle berries)

1479 *Plodia interpunctella* Indian Meal Moth
(synanthropic)
12 Mar 10, 1, in Garden Centre, captured in the
bird-seed department (JHFN); 1, Emmer Green,
at MV light (JHFN).
Synanthropic means 'with man', hence more
likely to be seen in the kitchen than in a moth trap
(NMH)

HESPERIIDAE

1526 *Thymelicus sylvestris* Small Skipper
From 18 Jun 10 (JH) to 24 Jul 10 (JL)
from 24 Jun 10 to 22 Jul 10 at Red Cow (AR)
11 Jul 10, 10, Moor Copse meadows (Highest
count) (JH)

1527 *Thymelicus lineola* Essex Skipper
From 4 Jul 10 (JL) to 15 Aug 10 (JH)
from 1 Jul 10 to 2 Aug 10 at Red Cow (AR)

1529 *Hesperia comma* Silver-spotted Skipper
15 Aug 10, 5, Aston Rowant NNR, Bald Hill
SU724959 (JH). Only sighting.

1531 *Ochlodes sylvanus* Large Skipper
From 7 Jun 10 (JH) to 24 Jul 10 (JL)
from 5 Jun 10 to 17 Jul 10 at Red Cow (AR)

1532 *Erynnis tages* Dingy Skipper
From 25 Apr 10 (JL) to 28 May 10 (JH & AR)
27 & 28 May 10 only at Red Cow (AR).
1 May 10, 11, Paices Wood (Highest count.) (JL)

1534 *Pyrgus malvae* Grizzled Skipper
From 25 Apr 10 (JL) to 12 Jun 10 (JL).
All records were from Paices Wood.
1 May 10, 13, Paices Wood (Highest count.) (JL)

PIERIDAE

1546 *Gonepteryx rhamni* Brimstone
From 15 Mar 10 (JL) to 3 Nov 10 (JL)

1549 *Pieris brassicae* Large White
From 19 May 10 (JH) to 4 Oct 10 (JH)

1550 *Pieris rapae* Small White
From 21 Apr 10 (JL) to 6 Oct 10 (JH)

1551 *Pieris napi* Green-veined White
From 10 Apr 10 (JH) to 18 Sep 10 (JL)

1553 *Anthocharis cardamines* Orange-tip
From 8 Apr 10 (JL) to 13 Jun 10 (AR)
from 17 Apr 10 to 13 Jun 10 at Red Cow (AR)

14 May, 12, Basildon Park SU6077 (JL) (Highest
count)

LYCAENIDAE

1555 *Callophrys rubi* Green Hairstreak
17 May 10, 4, Watts Bank SU3277 (JL)
17 Jun 10, 1, Broadmoor Bottom SU8562 (JL)

1557 *Neozephyrus quercus* Purple Hairstreak
From 5 Jul 10 (JL) to 5 Aug 10 (JH)

1558 *Satyrrium w-album* White-letter Hairstreak
17 Jul 10, 1, Berrys Road (Upper Bucklebury)
SU542683, visiting Hemp Agrimony (MWS)
20 Jul 10, 2, Caversham SU71137539 (L Powell
per JL)
20 Jul 10, 1, Emmer Green, possibly a wanderer
from the Clayfield Copse LNR? (JHFN).

1561 *Lycaena phlaeas* Small Copper
From 20 Apr 10 to 21 Oct 10 (AR, Red Cow).
None outside this date range elsewhere.

1569 *Cupido minimus* Small Blue
15 May 10, 1, 28 May 10, 4, Lardon Chase
SU588809 (JH)

1571 *Plebejus argus* Silver-studded Blue
From 24 Jun 10 to 25 Jul 10, Broadmoor Bottom
SU856628 and Wildmoor SU844632 only. (JL)
10 Jul 10, 18, Broadmoor Bottom (Maximum
count) (JL)

1572 *Aricia agestis* Brown Argus
From 17 May 10 to 25 Sep 10 (AR, Red Cow).
None outside this date range elsewhere.

1574 *Polyommatus icarus* Common Blue
From 15 May 10 to 23 Sep 10 (AR, Red Cow).
None outside this date range elsewhere.

1575 *Lysandra coridon* Chalkhill Blue
From 9 Jul 10 (JH) to 28 Aug 10 (JH). All at
known sites (Bozedown, Aston Rowant NNR,
Bald Hill NW SU721962, The Holies SU594798
and Lardon Chase SU588809) (JH)

1576 *Lysandra bellargus* Adonis Blue
28 May 10, 70, The Holies SU594798 (JH)
28 Aug 10, 3, Lardon Chase SU588809 (JH)
2 Sep 10, 3, Watts Bank SU3277 (JL)

1580 *Celastrina argiolus* Holly Blue
From 10 Apr 10 (JH) to 11 Oct 10 (JH)
from 21 Apr 10 to 31 Aug 10 at Red Cow (AR)

NYMPHALIDAE

1584 *Ladoga camilla* White Admiral
From 24 Jun 10 (JL) to 2 Aug 10 (JL)

Reported from Shepperlands SU779642, Simms Copse Mortimer West End SU645636, Vermont Woods Finchampstead SU789653, Beech Hill SU707648, Bradfield SU5873, Paices Wood, Berrys Road Upper Bucklebury SU542683, Limmerhill Woods Wokingham SU788683, The Coombes Bearwood SU772679 & Warfield SU865727.

1585 *Apatura iris* Purple Emperor
11 Jul 10, 1, Paices Wood (JL)

1590 *Vanessa atalanta* Red Admiral
From 25 May 10 (JH) to 2 Nov 10 (K Burchett per JL)

1591 *Vanessa cardui* Painted Lady
8 Jun 10, 2, Pingewood SU6868 (K Moore per JL)
12 Jun to 17 Jun 10, Red Cow (AR)
5 Jul 10, 1, Thatcher's Ford SU743636 (JH)
31 Jul 10, 1, Westwood Road (Tilehurst) (JH)
2 Aug 10, 1, Paices Wood (JL)
10 Aug 10, 1, Aston Rowant NNR, Bald Hill NW SU721962 (JH)
24 Aug 10, Red Cow (AR)

1593 *Aglais urticae* Small Tortoiseshell
From 24 Mar 10 (JL) to 4 Oct 10 (JH)
from 21 Mar 10 to 31 Aug 10 at Red Cow (AR)
Records were received from 20 sites.
Small Tortoiseshell is no longer scarce.

1597 *Inachis io* Peacock
From 15 Mar 10 (J Main per JL) to 2 Sep 10 (JL)

1598 *Polygonia c-album* Comma
From 18 Mar 10 (JH) to 3 Nov 10 (AR)
from 8 Apr 10 to 3 Nov 10 at Red Cow (AR)

1607 *Argynnis aglaja* Dark Green Fritillary
10 Jul 10, 1, Walbury Hill (E) SU375618 (JH/RDNHS)

1608 *Argynnis paphia* Silver-washed Fritillary
From 22 Jun 10 (JH) to 15 Aug 10 (JH)
22 Aug 10, 3, 23 Aug 10, 1, Red Cow, first for site, which has been monitored since 1986 (AR)
9 Jul 10, 2, Shinfield Park Woods SU728693, First for site, which has been checked since 2000. (JH)
JH commented that it had been an exceptional year for Silver Washed Fritillary. Not only had she found it in Shinfield Park Woods for the first time, she had it new for her garden, and had seen the dark form *valesina* in The Coombes Bearwood on 21 Jul 10.
Records were received from over 20 sites in all.

1614 *Pararge aegeria* Speckled Wood
From 10 Apr 10 (JH) to 27 Oct 10 (JH)

1620 *Melanargia galathea* Marbled White
From 11 Jun 10 to 22 Sep 10 at Red Cow (AR).
None outside this date range elsewhere, indeed, none after 23 Jul 10.

1621 *Hipparchia semele* Grayling
11 Jul 10, 2, Paices Wood (JL)
2 Aug 10, 2, Paices Wood (JL)
8 Aug 10, 1, Broadmoor Bottom SU8562 (JL)

1625 *Pyronia tithonus* Gatekeeper
From 8 Jul 10 (JH) to 1 Sep 10 (JH)
from 3 Jul 10 to 31 Aug 10 at Red Cow (AR)

1626 *Maniola jurtina* Meadow Brown
From 11 Jun 10 to 22 Sep 10 at Red Cow (AR).
None outside this date range elsewhere.

1627 *Coenonympha pamphilus* Small Heath
From 28 May 10 (JH) to 3 Sep 10 (AR)
from 23 Aug 10 to 3 Sep 10 at Red Cow (AR)

1629 *Aphantopus hyperantus* Ringlet
From 24 Jun 10 (JL) to 11 Aug 10 (JH)
from 29 Jun 10 to 27 Jul 10 at Red Cow (AR)

DREPANIDAE

1647 *Watsonalla cultraria* Barred Hook-tip (Local)
10 Sep 10, 1, Snelsmore Common (NMH/BMG)

1655 *Tethea or* Poplar Lutestring (Local)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)

1658 *Cymatophorima diluta* Oak Lutestring (Local)
10 Sep 10, 1, Snelsmore Common (NMH/BMG)

GEOMETRIDAE

1667 *Comibaena bajularia* Blotched Emerald (Local)
23 Jun 10, 23, Padworth Common (NMH)
25 Jun 10, 1, Dinton Pastures C.P. (NMH)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)

1673 *Hemistola chrysoprasaria* Small Emerald (Local)
21 Jun 10, 1, Harcourt Drive (Earley) (NMH)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)
10 Jul 10, 1, Westwood Road (Tilehurst) (JH)

1681 *Cyclophora linearia* Clay Triple-lines (Local)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)

1693 *Scopula floslactata* Cream Wave (Local)
2 Jun 10, 1, Greenham Common (NMH)
5 Jun 10, 2 Padworth Common (NMH)

1699 *Idaea rusticata* Least Carpet (Local)
8 to 27 Jul 10, 13 in all on 5 dates (max 6 on 19 Jul 10), Harcourt Drive (Earley) (NMH)
13 Jul 10, 1, Padworth Common (NMH)
24 Jul to 3 Aug 10, 1 or 2, Red Cow (AR)

1715 *Idaea straminata* Plain Wave (Local)
9 Jul 10, 7, Snelsmore Common (NMH/BMG)
13 Jul 10, 2, Padworth Common (NMH)

1721 *Xanthorhoe biriviata* Balsam Carpet (Local, alien foodplant)
15 May 10, 1, Bradfield College, river bank
SU605729 (BMG)

1726 *Xanthorhoe quadrifasiata* Large Twin-spot Carpet (Local)
25 Jun 10, 1, Dinton Pastures C.P. (NMH)
2 Jul 10, 1, Hartslock BBOWT Reserve
SU617795 (JH)
24 Jul 10, 1, Westwood Road (Tilehurst) (JH)

1731 *Scotopteryx bipunctaria* Chalk Carpet (Nb)
7 Aug 10, 50 to MV, Bozedown (NMH)
Attracting 50 of a Nb species to MV was extraordinary.

1736 *Catarhoe cuculata* Royal Mantle (Local)
7 Aug 10, 1, Bozedown (RDNHS)

1739 *Epirrhoe rivata* Wood Carpet (Local)
2 Jul 10, 2, Hartslock BBOWT Reserve
SU617795 (JH)

1749 *Pelurga comitata* Dark Spinach (Common)
16 Aug 10, 1, Red Cow (AR)
Though its national status is 'Common' it is not common in our region.

1751 *Lampropteryx otregiata* Devon Carpet (Nb)
4 Jun 10, 1, Snelmore Common (P Black per NMH)

1771A *Thera cypressata* Cypress Carpet (Local)
25 Jun 10, 1, Dinton Pastures C.P. (NMH)

1807 *Perizoma albulata* Grass Rivulet (Local)
19 May 10 & 11 Jun 10, max 7, Red Cow (AR)

1855 *Eupithecia phoeniceata* Cypress Pug (Local, alien foodplant)
20 Aug 10, 1, 21 Aug 10, 1, 9 Sep 10, 1, Harcourt Drive (Earley) (NMH)
This invasive species now appears to be established in our region. It is the first time I have seen it on more than 1 date in a season.

1878 *Minoa murinata* Drab Looper (Nb)
10 May 10, 2, Bradfield SU5873 (JL)

1888 *Ligdia adustata* Scorched Carpet (Local)
7 Aug 10, 1, Bozedown (RDNHS)

1889 *Macaria notata* Peacock Moth (Local)
5 Jun 10, 2, 23 Jun 10, 1, Padworth Common (NMH); 5 Aug 10, 1, Crookham Common
SU52156433 (NMH)

1890 *Macaria alternata* Sharp-angled Peacock (Local)
9 Jul 10, 1, Snelmore Common (NMH/BMG)

1905 *Pachynemia hippocastanaria* Horse Chestnut (Common)
8 Jul 10, 1, Wildmoor Heath SU840629 (JL)
Though its national status is 'Common' it is not common in our region.

1912 *Ennomos quercinaria* August Thorn (Local)
7 Aug 10, 3, Bozedown (NMH)
7 Jul 10 to 17 Aug 10, singles, Red Cow (AR)

1970 *Perconia strigillaria* Grass Wave (Local)
5 Jun 10, 6, Padworth Common (NMH)
20 Jun 10, 1, Decoy Heath SU613638 (JH)
24 Jun 10, 1, Broadmoor Bottom, Crowthorne
SU8562 (JL)

SPHINGIDAE

1976 *Sphinx ligustri* Privet Hawk-moth (Common)
28 Jun 10, 1, Falstaff Avenue (Earley) (T.Harrison per C. Raper)
Though generally common, it is not common in suburbia.

1984 *Macroglossum stellatarum* Humming-bird Hawk-moth (Migrant)
7 Feb 10, 1, Hambridge Road (Newbury)
SU479668, flying around in a furniture store. (MWS)
10 Jul 10, 1, Walbury Hill (E) SU375618 (JH/RDNHS)
2 to 9 Aug 10, max 3, Red Cow, usually resting on walls (AR)
18 Sep 10, 1, Westwood Road (Tilehurst) (JH)
10, 21 Jul 10 & 29 Aug 10, singles, Red Cow (AR)
28 Sep 10, & 22 Oct 10, singles, Emmer Green, nectaring on *Abelia* (JHFN)
28 Sep 2010, 1, 22 Oct 2010, 2 (or possibly the same one twice), Emmer Green (JHFN)

1986 *Hyles euphorbiae* Spurge Hawk-moth (Migrant)
17 Aug 10, 2, 21 Aug 10, 1, Red Cow, but, alas, released accidentally by a local entomologist who studies hawk-moths (AR)
(see rdnhs.org.uk for article and photographs)

1992 *Deilephila porcellus* Small Elephant Hawk-moth (Local)
28 May 10, 12 & 27 Jun 10, singles, Red Cow (AR);
4 Jun 10, 1, Harcourt Drive (Earley) (NMH)
5 Jun 10, 1, Devil's Punchbowl SU350850 (JH)
5 Jun 10, 1, Padworth Common (NMH)
18 Jun 10, 1, Tilehurst garden SU666743 (JL)

NOTODONTIDAE

2009 *Ptilodontella cucullina* Maple Prominent (Local)
25 Jun 10, 1, Whitchurch, Path Hill SU6578 (JL);
18 Jul 10, 1, Red Cow (AR)
19 Jul 10, 1, Harcourt Drive (Earley) (NMH)
7 Aug 10, 1, Bozedown (NMH)

ARCTIIDAE

2035 *Thumatha senex* Round-winged Muslin (Local)
24 & 28 Jun 10, singles, Red Cow (AR)
25 Jun 10, 1, Dinton Pastures C.P. (NMH)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)

2039 *Atolmis rubricollis* Red-necked Footman (Local)
5 Jun 10, 1, Padworth Common (NMH)

2040 *Cybosia mesomella* Four-dotted Footman (Local)
5 Jun 10, 2, 23 Jun 10, 4, Padworth Common (NMH);
9 Jul 10, 13, Snelsmore Common (NMH/BMG)

2045 *Eilema caniola* Hoary Footman (Nb)
16 Jul 10, 1, Emmer Green (JHFN);
19 Jul 10, 1, 27 Jul 10, 1, 21 Aug 10, 2, (NMH)

2056 *Parasemia plantaginis* Wood Tiger (Local)
5 Jun 10, 20, Devil's Punchbowl SU350850 (JH)

2057 *Arctia caja* Garden Tiger (Local)
19 Jul 10, 1, Red Cow (AR)

2067 *Euplagia quadripunctaria* Jersey Tiger
25 Jul 10 Frogmill Hurley (F. Farnsworth per NMH)
Now resident in London and spreading north, but there are few in our region (yet).

2068 *Callimorpha dominula* Scarlet Tiger (Local)
From 21 Apr 10 (JL) to 9 Jul 10 (JL).
Reported from allotments in Southcote SU668714, Caversham SU7175, Path Hill Whitchurch SU6578, Westwood Road Tilehurst, Hosehill LNR Theale SU6469, Speen Moor Newbury SU4567, White Shute Lambourn SU3376 & Red Cow Cholsey.
Range apparently increasing.

NOLIDAE

2075 *Meganola strigula* Small Black Arches (Na)
9 Jul 10, 6, Snelsmore Common (NMH/BMG)

2076 *Meganola albula* Kent Black Arches (Nb)
2 Jul 10, 1, Hartslock BBOWT Reserve SU617795 (JH)
16 Jul 10, 1, Red Cow (AR)

NOCTUIDAE

2091 *Agrotis ipsilon* Dark Sword-grass (Migrant)
Fewer records than usual, all of singles.

2131 *Xestia rhomboidea* Square-spotted Clay (Nb)
7 Aug 10, 4, Bozedown (RDNHS)

2132 *Xestia castanea* Neglected Rustic (Local)
10 Sep 10, 17, Snelsmore Common (NMH/BMG)
16 Sep 10, 1, Emmer Green (JHFN)

2136 *Naenia typica* The Gothic (Local)
18 Jul 10, 1, Harcourt Drive (Earley) (NMH)

2178 *Tholera decimalis* Feathered Gothic (Common)
4 Sep 10, 204, Lardon Chase (National Trust) SU587809 (BMG)

An impressive number even for a common species.

2196 *Mythimna pudorina* Striped Wainscot (Local)
9 Jul 10, 14, Snelsmore Common (NMH/BMG)

2197 *Mythimna straminea* Southern Wainscot (Local)
25 Jun 10, 1, Dinton Pastures C.P. (NMH); 20 Jul 10, 1, Harcourt Drive (Earley) (NMH)

2204 *Mythimna obsoleta* Obscure Wainscot (Local)
5 Jun 10, 1, Padworth Common (NMH)

2268 *Parastichtis suspecta* The Suspected (Local)
9 Jul 10, 8, Snelsmore Common (NMH/BMG)
13 Jul 10, 1, Padworth Common (NMH)

2275 *Xanthia gilvago* Dusky-lemon Sallow (Local)
8 Oct 10, 2, Westwood Road (Tilehurst) (JH)
Very uncommon since the demise of the Common Elms.

2300 *Mormo maura* Old Lady (Local)
20, 21 & 24 Aug 10, singles, Harcourt Drive (Earley) (NMH)
28 Aug 10, 1, Hosehill Lake SU65186980 (NMH)

2303 *Thalpophila matura* Straw Underwing (Common)
7 Aug 10, 118, Bozedown (RDNHS)
An impressive number, and of a species that I would not have expected to be the most numerous on the night.

2312 *Ipimorpha subtusa* The Olive (Local)
19 Jul 10, 1, Harcourt Drive (Earley) (NMH)

2316 *Cosmia affinis* Lesser-spotted Pinion (Local)
7 Aug 10, 1, Bozdown (NMH)

2321 *Apamea monoglypha* Dark Arches (Common)
14 Jul 10, one seen nectaring on *Polianthes tuberosa* in the greenhouse, Emmer Green (JHFN)

2335 *Apamea scolopacina* Slender Brindle (Local)
13 Jul 10, 1, Padworth Common (NMH)

2336 *Apamea ophiogramma* Double Lobed (Local)
19 & 20 July 10, singles, Harcourt Drive (Earley) (NMH)

2358 *Amphipoea fucosa* Saltern Ear (Local)
1 Aug 10, 1, Red Cow, first for site (AR)

2370 *Archanara geminipuncta* Twin-spotted Wainscot (Local)
28 Jul 10, 2, 30 Jul 10, 3, Red Cow, first for site. (AR)

2371 *Archanara dissoluta* Brown-veined Wainscot (Local)
26 Jul 10, 1, Harcourt Drive (Earley) (NMH)

2379 *Coenobia rufa* Small Rufous (Local)
5 Aug 10, 1, Crookham Common SU52156433 (NMH)

2396 *Elaphria venustula* Rosy Marbled (Nb)
2 Jun 10, 2, Westlands Avenue Shinfield SU734702 (R Dobson per NMH)
5 Jun 10, 6, 23 Jun 10, 2, Padworth Common (NMH)

2397 *Panemeria tenebrata* Small Yellow Underwing (Local)
7 Jun 10, 1, Eversley, NE footpath SU778629 (JH)

2400 *Helicoverpa armigera* Scarce Bordered Straw (Migrant)
2 Sep 10, 1, Red Cow (AR)

2408 *Eublemma parva* Small Marbled (Migrant)
17 Jul 10, 1, Westwood Road (Tilehurst) (JH)
New for garden

2466 *Lygephila pastinum* The Blackneck (Local)
25 Jun 10, 1, Dinton Pastures C.P. (NMH)
2 Jul 10, 1, Red Cow (AR)
10 Jul 10, 1, Westwood Road (Tilehurst), new for garden. (JH)

2470 *Phytometra viridaria* Small Purple-barred (Local)
2 Jul 10, 2, Hartslock BBOWT Reserve SU617795 (JH)

2475 *Parascotia fuliginaria* Waved Black (Nb)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)
16 Aug 10, 1, Harcourt Drive (Earley) (NMH)

2476 *Hypena crassalis* Beautiful Snout (Local)
9 Jul 10, 1, Snelsmore Common (NMH/BMG)

2480 *Hypena rostralis* Buttoned Snout (Nb)
29 Oct 10, 1, Red Cow (AR) indoors

CONTRIBUTORS

Thanks are due to the following members for their submissions:

(AR) Tony Rayner, (JH) Jan Haseler, (JL) John Lerpiniere, (JHFN) John Notton, (MWS) Malcolm Storey.

If a species was recorded on one of their field meetings, the records may be attributed to (BMG) Berkshire Moth Group or (RDNHS) Reading & District Natural History Society

RECORDER'S REPORT FOR ENTOMOLOGY and OTHER INVERTEBRATES 2010

Chris Raper

ANNELIDA

Lumbricidae

Allolobophora chlorotica Green Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; near house - lawn and under trees; led by Dan Carpenter (RDNHS)

Aporrectodea caliginosa Grey Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; near house - lawn and under trees & reedbed – cleared area; led by Dan Carpenter (RDNHS)

Aporrectodea longa Black-headed Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; lawn below house; led by Dan Carpenter (RDNHS)

Aporrectodea rosea Rosy-tipped Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; near house - lawn and under trees & reedbed – cleared area; led by Dan Carpenter (RDNHS)

Lumbricus rubellus Redhead Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; reedbed – cleared area; wet and acid - low density; led by Dan Carpenter (RDNHS)

Lumbricus terrestris Lob Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; near house - lawn and under trees; led by Dan Carpenter (RDNHS)

Satchellius mammalis (?) Tree Worm
20 Nov 10; earthworm survey at Withymead NR, Oxon; SU602827; under trees in woodland; led by Dan Carpenter (RDNHS)

ARACHNIDA

Araneus diadematus Garden Spider
19 Sept 10; a walk to Wildmoor Heath & Owlsmoor Bog led by Michael Keith-Lucas; SU849631 (RDNHS)

Araneus quadratus Four-spot Orb-weaver
19 Sept 10; a walk to Wildmoor Heath & Owlsmoor Bog led by Michael Keith-Lucas; SU849631 (RDNHS)

Atypus affinis Purse-web Spider
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Dolomedes fimbriatus Raft Spider
19 Sept 10; a walk to Wildmoor Heath & Owlsmoor Bog led by Michael Keith-Lucas; SU849631 (RDNHS)

INSECTA

COLEOPTERA

Carabidae

Perigona nigriceps (a ground beetle)
12 Sept 10; Arborfield, in (horse) dung heap, SU751671. (TH)

Cerambycidae

Agapanthia villosoviridescens (a longhorn beetle)
31 Jul 10; Moor Copse NR, Tidmarsh; SU638739; in the flower-rich meadows (CMTR)

Chrysomelidae

Longitarsus symphyti (a flea beetle)
18 Aug 09; Near Shinfield, on *Symphytum officinale*, SU746681; first record for Britain. (TH)

Coccinellidae

Chilocorus renipustulatus Kidney-spot Ladybird
14 Feb 10; Park Wood, Moor Copse NR; SU638740 (JH)
10 Apr 10; Walk through Ashenbury Park SU774745 led by Renée Grayer (RDNHS)

Coccinella 7-punctata 7-spot Ladybird
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Corylophidae

Sericoderus brevicornis (a minute fungus beetle)
24 Oct 10; Earley, in mouldy grass cuttings heap, SU735708; a recent Australian immigrant. (TH)

Endomychidae

Endomychus coccineus Ladybird Beetle
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Dermestidae

Dermestes ater (a larder beetle)
28 Jul 10; Ladds Garden Centre, Hare Hatch, as a pest in commercial cultures of crickets, SU807780. (TH)

Histeridae

Acritus nigricornis (a carrion beetle)
7 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Hydrophilidae

Cercyon unipunctatus (a scavenger water-beetle)
29 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Sphaeridium bipustulatum (a scavenger water-beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Lampyridae

Lampyris noctiluca Glow-worm
Unspecified dates; Shooters Hill, Pangbourne;
lots of glow-worms reported in her garden
(Angela Neale)

Latridiidae

Dienerella ruficollis (a mould beetle)
31 Jul 10; Near Arborfield, in (horse) dung heap,
SU760689. (TH)

Leiodidae

Catops morio (a round fungus beetle)
11 Apr 10; Swallowfield, in mole nest, SU731644.
(TH)

Lucanidae

Lucanus cervus Stag Beetle
28 Jun 10; Tilehurst SU666742 (JH)
4 Jun 10 to 30 Jul 10 with a maximum of just
three on 1 Jul 10; Red Cow, Cholsey; SU592868;
a poor year (AR)

Scarabidae

Cetonia aurata Rose Chafer
20 Jun 10; Decoy Heath; SU614635 (JH)
1 Jul 10; Tilehurst; SU666742 (JH)

Melolontha melolontha Cockchafer
5 May 10 – 22 May 10; Red Cow, Cholsey;
SU592868; Moth trap counts varied from 21 to
24. Lower numbers thereafter, until just a single
on 11 Jun 10. The decline reported in 2009
reversed. (AR)

Staphylinidae

Anotylus nitidulus (a rove beetle)
31 Jul 10; Near Arborfield, in (horse) dung heap,
SU760689. (TH)

Bohemiellina flavipennis (a rove beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Edaphus beszedesi (a rove beetle)
7 Sept 10; a recent immigrant to Britain;
Arborfield, in (horse) dung heap, SU751671.
(TH)

Gabronthus thermarum (a rove beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Lithocaris ochracea (a rove beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Megarthus prosseni (a rove beetle)
5 May 10; Earley, in white water-trap on lid of
compost bin, SU735708. (TH)

Oxytelus migrator (a rove beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Philonthus spinipes (a rove beetle)
27 Aug 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

Platystethus arenarius (a rove beetle)
31 Jul 10; Near Arborfield, in (horse) dung heap,
SU760689. (TH)

Tenebrionidae

Myrmechixenus vaporariorum (a darkling beetle)
12 Sept 10; Arborfield, in (horse) dung heap,
SU751671. (TH)

DIPTERA

Asilidae

Asilus crabroniformis Hornet Robberfly
15 Jul 10 – 5 Sep 10 with a disappointing
maximum of just 5 on 17 Aug 10; Red Cow,
Cholsey; SU592868; another shortened season
for this species. The flies were again seen in all
areas of the meadow, and in the garden. No
mating pairs were observed which was unusual.
One seen in nearby meadow on 28 Jul 10. (It is
known that some years these flies move from our
patch to another nearby) (AR)

Leptarthrus vitripennis False Slender-footed
Robberfly
11 Jul 10; Hartslock NR, Goring-on-Thames;
SU616796 (CMTR)

Machimus atricapillus Kite-tailed Robberfly
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Bombyliidae

Villa cingulata Downland Villa
18 Jul 10; Warburg NR, Bix Bottom; SU721879.
(CMTR) A very rare and local fly found in very few localities around Warburg and in the West Country. This year it seemed to be particularly common and easy to find on all sunny positions.

Cecidomyiidae

Dasineura sp. nov. (a gall midge)
20 Jun 10, Lough Down, GR: SU587812, galled leaf on Dropwort. (This is a newly-recognised species that the gall people are monitoring. It seems to be quite common but don't think it has a name yet) (MWS)

Rhinophoridae

Rhinophora lepida (a woodlouse parasite fly)
25 Jul 10; Moor Copse NR, Tidmarsh; SU638739; on low-growing foliage (CMTR)
A common parasitoid of woodlice.

Stratiomyidae

Stratiomys potamida Banded General
3 Jul 10; Moor Copse NR, Tidmarsh; SU638739; along the riverbank and in the flower-rich meadows on umbellifers and resting on leaves. (CMTR)
This unusual wasp mimic seems to be doing well in our region.

Syrphidae

Chrysotoxum bicinctum (a hoverfly)
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Episyrphus balteatus Marmalade Hoverfly
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Pipiza lugubris (a hoverfly)
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Volucella inanis (a hoverfly)
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Volucella inflata (a hoverfly)
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Volucella zonaria (a hoverfly)

27 Jul 10 (and on other, unrecorded dates); Red Cow, Cholsey; SU592868; a very good year for this species. (AR)

22 Aug 10; Warburg Reserve, Bix; SU721879 (CMTR)

Tabanidae

Haematopota pluvialis Cleg
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Tachinidae

Bithia spreta (a parasite fly)
24 Jul 10; Red Cow, Cholsey; SU592868. (CMTR)

Dinera grisescens (a parasite fly)
3 & 17 Jul 10; Moor Copse NR, Tidmarsh; SU638739; along edge of the flower-rich meadows on umbellifers. (CMTR)

Epicampocera succincta (a parasite fly)
25 Jul 10; Moor Copse NR, Tidmarsh; SU638739; in the flower-rich meadows (CMTR)
A common tachinid whose hosts are pierid butterflies.

Exorista rustica (a parasite fly)
25 Jul 10; Moor Copse NR, Tidmarsh; SU638739; in the flower-rich meadows (CMTR)
14 Aug 10; Hartslock NR, Goring-on-Thames; SU616796. (CMTR)
A very common tachinid whose hosts are sawflies that live in umbellifer stems.

Nowickia ferox (a parasite fly)
27 Jul 10; Moor Copse NR, Tidmarsh; SU638739; on umbellifers (CMTR)

Phasia hemiptera (a parasite fly)
27 Jul 10; Moor Copse NR, Tidmarsh; SU638739; on umbellifers (CMTR)
22 Aug 10; dark-winged form, Warburg Reserve, Bix; SU721879 (CMTR)

Phasia obesa (a parasite fly)
24 Jul 10; Red Cow, Cholsey; SU592868. (CMTR)
21 Aug 10; walk around the Warburg Reserve, Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Prosenia siberita (a parasite fly)
Hartslock NR, Goring-on-Thames; SU616796. (CMTR) A very distinctive parasite fly with a long proboscis whose hosts are small chafer beetles.

Tachina fera (a parasite fly)
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)
10 Sept 10; Red Cow, Cholsey; SU592868. (AR)

Zophomyia temula (a parasite fly)
12 Jun 10; Moor Copse NR, Tidmarsh;
SU638739; in the flower-rich meadows (CMTR)

Tephritidae

Urophora cardui (a gall fly)
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879; galls on
Cirsium arvense (RDNHS)

EPHEMEROPTERA

Ephemera danica (a mayfly)
12 Jun 10; Moor Copse NR, Tidmarsh;
SU638739 (CMTR)
A mayfly of faster-moving waters with
stony/gravel bottoms.

Ephemera lineata (a mayfly)
2 Jul 10; Hartslock NR, Goring-on-Thames;
SU616796; at MV light during the RDNHS
mothning evening. (CMTR)
A rare mayfly of large, muddy rivers – in this case
the Thames.

HEMIPTERA

Corizus hyoscyami (a rhopalid bug)
15 Aug 10, walk around Holies Down lead by
MWS, SU593799, slope above SSSI (RDNHS)

HYMENOPTERA

Bombus hypnorum (a bumblebee)
12 Jun 10; Moor Copse NR, Tidmarsh;
SU638739; along the riverbank on umbellifers
(CMTR)
A relatively recent colonizer to UK shores that
has been spreading through south-east England.

Diplolepis rosae (Robin's Pincushion Gall)
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879; galls found
on *Rosa* sp. (RDNHS)

Gasteruption jaculator (a parasitic wasp)
18 Jul 10; Warburg NR, Bix Bottom; SU721879.
(CMTR)

Gasteruption minutum (a parasitic wasp)
9 Jun 10; Tilehurst; SU66327506; sitting on the
outside of my house (CMTR) This is a rare
member of an unusual group of parasitic wasps.

Tiphia (Tiphia) femorata (a solitary wasp)
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Vespa crabro Hornet
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

ODONATA

Anisoptera

Aeshna cyanea Blue (or Southern) Hawker
3 Jun 10; Walk at Mill Meadows, Henley;
SU767818 led by Sally Rankin (RDNHS)
25 Jul 10 - 11 Oct 10; Red Cow, Cholsey;
SU592868; one or two at a time - frequently seen
patrolling or egg-laying. (AR)

Aeshna grandis Brown Hawker
9 Jul 10 – 15 Aug 10; Red Cow, Cholsey;
SU592868; one or two seen between the given
dates. Often egg-laying. (AR)

Aeshna mixta Migrant Hawker
24 Aug 10 to 19 Oct 10; Red Cow, Cholsey;
SU592868; only singles recorded between the
given dates. (AR)

Anax imperator Blue Emperor (formerly
Emperor Dragonfly)
4 Jun 10 – 22 Jul 10; Red Cow, Cholsey;
SU592868; one or two seen on several days
between the dates given. Often egg-laying. (AR)

Gomphus vulgatissimus Common Clubtail
(formerly Club-tailed Dragonfly)
13 Jun 10 - 17 Jun 10; Red Cow, Cholsey;
SU592868; one or two seen between the given
dates (AR)

Libellula depressa Broad-bodied Chaser
22 May 10 to 28 Jun 10; Red Cow, Cholsey;
SU592868; seen frequently between the given
dates, patrolling or egg-laying, max of 4. (AR)

Libellula quadrimaculata Four-spotted Chaser
3 Jun 10 – 2 Aug 10; Red Cow, Cholsey;
SU592868; a good year for this species. Singles
seen regularly between the given dates. (AR)

Sympetrum striolatum Common Darter
9 Jul 10 – 3 Nov 10; Red Cow, Cholsey;
SU592868; seen regularly between the given
dates with a maximum of 5, but under-recorded.
Often egg-laying. (AR)

Zygoptera

Calopteryx splendens Banded Demoiselle
3 Jun 10; Walk at Mill Meadows, Henley;
SU767818 led by Sally Rankin (RDNHS)
2 Jun 10 - 10 Jun 10; Red Cow, Cholsey;
SU592868; one seen between the given dates
(AR)

Coenagrion puella Azure Bluet (formerly Azure
Damselfly)
10 May 10 to 15 Aug 10; Red Cow, Cholsey;
SU592868; seen regularly between the given
dates with over 75 (mass egg-laying) on 16 Jun
10. (AR)

Ischnura elegans Common Bluetail (formerly
Blue Tailed Damselfly)
16 Jun 10 – 15 Aug 10; Red Cow, Cholsey;
SU592868; recorded on numerous occasions,
but never more than four. (AR)

Pyrrhosoma nymphula Large Red Damsel
(formerly Large Red Damselfly)
2 Jun 10 - 17 Jun 10; Red Cow, Cholsey;
SU592868; Max of 6 between the given dates.
No early sightings this year. (AR)

ORTHOPTERA

Chorthippus brunneus Field grasshopper
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Conocephalus fuscus [=discolor] Long-winged
Conehead
31 Jul 10; walk to Mapledurwell Fen led by
Graham Saunders; SU678523 (RDNHS)

Leptophyes punctatissima Speckled bush
cricket
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Metrioptera roeselii Roesel's Bush-cricket
Summer 2010; once again heard and seen
through the year, at least as numerous as in
2009. (AR)

Pholidoptera griseoaptera Dark Bush-cricket
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

Tetrix undulata Common ground hopper
21 Aug 10; walk around the Warburg Reserve,
Bix led by Rd'A & CMTR; SU721879 (RDNHS)

CONTRIBUTORS

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

Tony Rayner (AR), Chris Raper (CMTR), Jan Haseler (JH), Malcolm Storey (MWS), Rod D'Ayala (Rd'A), Society walks (RDNHS), Thomas Harrison (TH)

RECORDER'S REPORT FOR VERTEBRATES 2010

Tony Rayner

My grateful thanks to all those who have contributed to this report. Once again special thanks are due to Rod D'Ayala for his unrivalled input. Note also John Sumpter's and Alan Parfitt's impressive amphibian counts and conservation work at Hambledon. Where the location is not stated, the records relate to Red Cow, Cholsey SU592868. At meetings several members are reporting unusual birds in their gardens, so I intend to include a few of the more notable garden sightings in future.

BIRDS

Porzana porzana Spotted Crake

30 Sep 10 One in Sonning Common garden. An amazing record for this rare passage migrant. SU708798 (FC)

Lanius excubitor Great Grey Shrike

22 Nov 10 One in Appleford garden SU526937 (RL)

Sylvia undata Dartford Warbler

Feb 08 One in Newbury garden. SU479678 (BF)

FISH

Gasterosteus aculeatus Three-spined Stickleback

4 Sep 10 Very common at C S Lewis Nature Reserve SP560066 (Rd'A)

Salmo trutta Brown Trout

22 Apr 10 One adult at Kings Pool Ewelme SU645915 (Rd'A)

Cyprinus carpio Common Carp

28 Jun 10 Several at Lower Pond Greenmoor SU645807 (Rd'A)

AMPHIBIANS

Bufo bufo Common Toad

Feb/Mar 10 10,501 adults collected and carried across road at Oaken Wood, Hambledon. On one day in March over 2,780 collected. SU768854 (JS & AP)

2 Apr 10 30 adults in Copse Pond Didcot SU510897 (Rd'A)

10 Apr 10 Adult calling at Tidmore Pool Woodcote SU649823 (Rd'A)

30 Apr 10 Tadpoles common in Copse Pond Didcot SU510897 (Rd'A)

1 May 10 Dead adult in Cholsey meadow (TR)

18 May 10 One adult at Hartslock SU616795 (AB)

31 Jul 10 One at Greywell/Basingstoke Canal SU722515 (GS)

7 Aug 10 One adult at Decoy Heath SU610634 (Rd'A)

7 Oct 10 One toadlet under snake sheet at Cholsey, only live site record for year (TR)

Triturus vulgaris Smooth Newt

Feb/Mar 10 30 to 40 collected and carried across road at Oaken Wood, Hambledon SU768854 (JS & AP)

21 Mar 10 Adult in Henley garden SU746817 (Rd'A)

29 Mar 10 Three in Didcot garden SU521895 (Rd'A)

2 Apr 10 Five in Copse Pond Didcot SU510897 (Rd'A)

5 Apr 10 Ten in Tilehurst garden SU666742 (JH)

10 May 10 Four at Hambledon SU786854 (Rd'A)

Triturus cristatus cristatus Great Crested Newt

10 May 10 Two adults at Little Wittenham Nature Reserve SU566934 (CP)

May 10 One at All Saints Primary School pond SU818682 (MJ)

Jun 10 An adult in Huntercombe garden pond SU681882 (TB)

Triturus helveticus Palmate Newt

Feb 10 4 in a pond, no location given (GS)

3 Jun 10 3 adults at Decoy Heath SU609634 (Rd'A & AB)

May 10 One at Thames Valley Park, Reading SU746746 (RD)

Rana temporaria Common Frog

Feb Mar 10 430 collected and carried across road at Oaken Wood, Hambledon SU768854 (JS & AP)

26 Feb 10 Two in garden pond SU666742 (JH)

10 Mar 10 Spawn in Reading garden (MKL)

16 Mar 10 Spawn at Maiden Erlegh (GH)

18 Mar 10 50+ and first spawn in garden pond SU666742 (JH)

18 Mar 10 One at Pound Copse Arborfield SU751671 (JH)

19 Mar 10 Spawn being laid in Didcot garden SU521895 (Rd'A)

20 Mar 10 40 males and 40 clumps of spawn at Didcot SU521895 (Rd'A)

21 Mar 10 10 clumps & still spawning at Well Pond Stoke Row SU680841 (Rd'A)

21 Mar 10 10 adults & 50-60 spawn clumps, Upper Pond Greenmoor SU645870 (Rd'A)

Mar 10 No frogs in Tilehurst garden (CD)

Mar 10 Spawn at Paices Wood SU583637 (JL)

24 Mar 10 Five plus spawn at Spencers Wood SU720671 (JH)

29 Mar 10 Two plus spawn at Three Mile Cross SU709675 (JH)
 28 Jun 10 Juvenile at Hill School Emmer Green SU722760 (Rd'A)
 27 Aug 10 Froglet in Cholsey garden, first site record for year. (TR/RR)
 6 Sep 10 Froglet in Cholsey meadow (TR)

Trachemys scripta Red-eared Terrapin
 18 Apr 10 One adult at Little Wittenham Nature Reserve SU567933

REPTILES

Lacerta vivipara Common Lizard
 10 Apr 10 Seven adults at Warburg reserve SU7188 (MB)
 3 Jun 10 Two adults at Decoy Heath SU6163 (Rd'A & AB)
 18 Jun 10 One at Limmerhill, Wokingham SU794680 (JH)
 21 Aug 10 Lots at Warburg reserve SU7187 (CR)
 16 Sep 10 One at Shepperlands Copse, Finchampstead SU779644 (JH)
 20 Sep 10 Five adults at Warburg reserve SU7188 (Rd'A)
 4 Apr 10 to 23 Oct 10 Total of 284 sightings with maximum 24 on 3 Oct 10. Good breeding success resulting in strong finish to their year at Cholsey.

Anguis fragilis Slow-worm
 25 Sep 09 One in Palmer Park, Reading (HT)
 18 Mar 10 One at Bozedown Wood (FT)
 16 Apr 10 30 at Warburg reserve SU7187 (Rd'A & MB)
 8 May 10 One on Tilehurst garden compost heap SU666742 (JH)
 20 May 10 18 at Warburg reserve SU7187 (Rd'A & MB)
 24 May 10 Adult at Goring SU606801 (TW)
 3 Jun 10 Two adults at Decoy Heath SU6163 (Rd'A & AB)
 21 Aug 10 Lots at Warbourg reserve SU7187 (CR)
 19 Sep 10 Two adults in Didcot garden SU521895 (Rd'A)
 18 Oct 10 One adult escaped the attentions of a Blackbird at Cholsey (TR)
 13 Mar 10 to 28 Oct 10 Total of 1,382 sightings with a maximum of 78 on 15 Apr 10.
 Sightings well down on recent years due to absence during long hot/dry spell at Cholsey. Limited breeding success. (TR/RR)

Natrix natrix Grass Snake
 8 Apr 10 to 28 Oct 10 Total of 145 sightings with a maximum count of 9 on three days
 1 May 10; 23 Sep 10; and 4 Oct 10. Successful breeding again at Cholsey (TR/RR).
 10 Apr 10 One at Ashenbury Park, Woodley SU774745 (JH)

14 May 10 Adult at Benhams Wood SU759866 (Rd'A)
 3 Jun 10 Adult & 3 juveniles at Decoy Heath SU6163 (Rd'A & AB)
 22 Jul 10 Adult in North Moreton garden, a site first SU561890 (Rd'A)
 Late Sept 10 One seen swimming (no location given) (VN)
 Regular sightings at Greenham Common SU513641 (SF)

Vipera berus Adder
 1 Mar 10 Three at Decoy Heath SU611634 (JL)
 10 Apr 10 Three males at Warburg reserve SU7187 (MB)
 1 May 10, Female, Wokefield Common, SU6164 (Sarah McWilliam per JP)
 3 Jun 10 One juvenile, one adult and two shed skins at Decoy Heath SU611634 (R'dA & AB)
 20 Jun 10, 5 adults, Decoy Heath, SU6163 (JP)
 4 Jul 10 One adult at Snelsmore Common SU462709 (SG)
 Regular sightings including a mating pair at Greenham Common SU513641 (SF)

Pantherophis guttatus Corn Snake
 16 Aug 10 One in Cholsey garden resting in hedge SU591869 (TR)

BATS

Pipistrellus pipistrellus Common Pipistrelle
 6 Apr 10 & 1 Aug 10 & 19 Sep 10 One adult over Didcot garden SU521895 (Rd'A)
 31 Jul 10 Four at Greywell/Basingstoke Canal SU722515 (JH)
 16 Aug 10 Peak numbers for year at Cholsey (TR)

Myotis daubentonii Daubenton's
 31 Jul 10 Two at Greywell/Basingstoke Canal SU722515 (JH)
 4 Sep 10 Adult at C S Lewis Nature Reserve SP560066 (Rd'A)

Eptesicus serotinus Serotine
 31 Jul 10 One at Greywell SU720512 (JH)

Nyctalus noctula Noctule
 18 May 10 One or two adults at Hartslock reserve SU616795 (Rd'A)
 31 Jul 10 One at Greywell/Basingstoke Canal SU722515 (JH)
 30 Aug 10 to 8 Oct 10 Up to four watched most evenings for 10 to 20 minutes after sunset at Cholsey. Behaviour strongly suggested a new roost in nearby willows. (TR/RR & others)
 19 Sep 10 Four adults over Didcot SU521895 (Rd'A)

Myotis sp Whiskered/Brant's
 31 Jul 10 At Basingstoke Canal (GS)

INSECTIVORES

Erinaceus europaeus Hedgehog

17 Jul 10 to 16 Oct 10 Six sightings in Didcot garden SU521895 (Rd'A & Hd'A)
9 Aug 10 One at North Moreton SU561891 (TR)
15 Oct 10 One adult dead at Five a Day Market Centre, Englefield SU6272 (BF)

Sorex araneus Common Shrew

17 Mar 10 to 15 Oct 10 11 records at Cholsey site, a very poor year for this species (TR)
23 Apr 10 One adult at Sutton Courtenay EEC SU500918 (Rd'A)
1 Jul 10 3 in small mammal traps at Greenham Common SU500652 & 499652 (AW)

Sorex minutus Pigmy Shrew

3 Mar 10 to 6 Oct 10 5 records at Cholsey site, about the same as previous years.(TR)

Talpa europaea Mole

Common and increasing in Cholsey area. (TR)

CARNIVORES

Lutra lutra Otter

16 Jan 10 Hosehill LNR SU648694 (JP)
18 Jan 10 Adult female found dead beside road at Long Wittenham SU548943 (Hd'A)
1 Sep 10 Padworth SU6167 (Fisherman per JP)
1 Sep 10 fish remains Padworth SU604665 (Farmer per JP)
A nice confirmation of the fisherman's report.
Now in all of Oxfordshire's major rivers including the Thames and the Thame. (EA)
Now using the Kennet & Avon Canal in Berkshire as a corridor in their spread to the East (BW)

Meles meles Badger

2 Mar 10 One below Bozodown Whitchurch at 7.14pm SU6578 (JW/JeW)
5 Mar 10 One road kill near Sheephouse Farm, Cholsey SU568843 (TR)
4 Apr 10 Adult road kill at North Moreton SU563906 (Rd'A)
10 Apr 10 Adult road kills at Woodcote SU629843 & SU643825 (Rd'A)
3 Sep 10 Numerous tunnels under fence at Upper Basildon SU5977 (TR)

Mustela nivalis Weasel

24 Apr 10 One at Hartslock SU618795 (BF)

Mustela erminea Stoat

10 Mar 10 Adult at Aston Upthorpe SU546838 (TR)
13 Aug 10 In very wet conditions in the hidden valley at Basildon Park, two stoats (possibly adult female and offspring) appeared some 30 meters from the lone observer. The adult approached to

within 10 metres before disappearing into long grass. The smaller one retreated from whence it came only to reappear and follow the adult. (CD)
Thanks Colin for this excellent report.

19 Nov 10 One at Emmer Green SU713773 (GC)

Mustela putorius Polecat

15 Jul 10 approx. A road kill at South Moreton SU5688 (CS)
11 Aug 10 Road kill at Moultsford SU581832 (TW)

Mustela vison American Mink

6 May 10 One at Bagnor SU453692 (GC)

Vulpes vulpes Fox

16 Jan 10 One at Sonning SU770757 (GC)
2 Mar 10 One at Cholsey crossing a field carrying a free-range duck SU592871 (RR/TR)
2 Mar 10 Two at The Grove Shinfield Park SU730689 (JH)
8 Mar 10 One in Reading garden (MKL)
11 Mar 10 One at Brightwell-cum-Sotwell SU5891 (RR)
Early Mar 10 Three in Earley garden most days. SU7472 (AA)
10 Apr 10 Adult road kill at Woodcote SU631836 (Rd'A)
14 May 10 Adult male at Brightwell-cum-Sotwell SU575913 (Rd'A)
23 May 10 One at Reading SU708701 (GC)
27 May 10 Adult road kill at Didcot SU517908 (Rd'A)
4 Jun 10 One at Pingewood SU693707 (GC)
8 Jul 10 One at Reading SU707728 (GC)
16 Jul 10 One at Emmer Green SU713767 (GC)
28 Jul 10 One at Emmer Green SU717761 (GC)
28 Jul 10 One at Caversham SU712749 (GC)
28 Jul 10 Two at Burghfield SU680705 (GC)
1 Sep 10 One at Emmer Green SU714772 (GC)
25 Nov 10 Road kill on A34 SU488764 (TR)

Rattus norvegicus Brown Rat

Seen regularly at Thatcham Reedbeds SU506670 (BF)

DEER

Muntiacus reevesi Muntjac

13 Jan 10 One at Crowmarsh Gifford SU614899 (GC)
20 Feb 10 One at Curridge SU488723 (JH)
18 Mar 10 One at Bowdown Woods SU5065 (FT)
15 Apr 10 One in Didcot front garden SU522895 (Rd'A)
6 May 10 One at Woolhampton SU571653 (GC)
29 Jul 10 Two flushed when oilseed rape harvested at Cholsey (TR)
3 Aug 10 One at Emmer Green SU709768 (GC)

4 Aug 10 One barking early morning at Cholsey (TR)
1 Sep 10 One at Emmer Green SU714772 (GC)

Capreolus capreolus Roe Deer

17 Jan 10 Two at Benyon's Enclosure, Mortimer SU626628 (JH)
5 Feb 10 Two at The Moors Finchampstead SU795663 (JH)
5 Mar 10 One at Reading SU704713 (GC)
9 Mar 10 One at Christmas Common SU706937 (GC)
10 Mar 10 Two by Ridgeway above Aston Upthorpe SU548847 (TR)
18 Mar 10 One at Bowdown Wood SU5065 (FT)
1 Apr 10 Five at Warburg N R SU716879 (MB)
27 Apr 10 Four at Froxfield SU297672 (GC)
28 Apr 10 Four at Limmerhill, Wokingham SU794680 (JH)
3 Jun 10 Male & female at Decoy Heath SU610634 (Rd'A & AB)
9 Jun 10 One at Pingewood SU693707 (GC)
12 Jun 10 One in Cholsey meadow (TR/RR)
7 Nov 10 One at Upper Basildon SU5977 (TR)
17 Nov 10 One at Bowdown Woods SU506657 (BF)

Dama dama Fallow Deer

26 Jan 10 Sixty at Farnborough Berks SU438823 (GC)
17 Feb 10 Twenty at Woodland St Mary (BK)

RABBITS & HARES

Lepus europaeus Brown Hare

10 Mar 10 Three at Churn SU5382 (TR)
23 Apr 10 Two at Stanford End meadow SU705632 (JH)
27 Apr 10 One at Cholsey (TR)
11 May 10 One at Silchester SU633611 (GC)
22 Oct 10 to 8 Nov 10 One or two at Cholsey (TR)

Oryctolagus cuniculus Rabbit

Numbers seem to be checked around Cholsey by strong presence of Foxes and Buzzards. (TR)

CONTRIBUTORS

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

AA Alice Ayers; EA Environment Agency; AB Andy Burdock; MB Martin Burdock; TB T Bartlett; FC Fiona Cummins; GC Gordon Crutchfield; CD Colin Dibb; RD R Dryden; Hd'A Helen D'Ayala; Rd'A Rod D'Ayala; BF Becca Flintham; SF Simon Forbes; SG Stephen Graham; GH Grahame Hawker; MKL Michael Keith-Lucas; JH Jan Haseler; MJ M Jacobs; BK Brian Kemp; JL John Lerpeniere; RL Richard Lewington; VN Valerie Newman; AP Alan Parfitt; CP Chris Parker; CR Chris Raper; RR Ro Rayner; TR Tony Rayner; CS Chris Shayler; GS Graham Saunders; JS John Sumpter; FT Fred Taylor; HT Harriet Townsend; AW Adrian Wallington; BW British Waterways; JW Janet Welsh; JeW Jerry Welsh; TW Tom Worthington.

RODENTS

Sciurus carolinensis Grey Squirrel

A noticeable reduction this year in Cholsey following regular culling. (TR)

Apodemus sylvaticus Wood Mouse

24 May 10 Adult at Browns Ground Sonning Common SU715794 (JW & JeW)
1 Jul 10 3 in small mammal traps at Greenham Common SU499652 & 500652 (AW)
2 Jul 10 to 20 Oct 10 seen on 18 occasions, several late broods and well up on 2009 at Cholsey site (TR/RR)
14 Jul 10 Seven males in mammal traps at Greenham Common SU491643 & SU493643 (AW)
20 Sep 10 Adult & young at Bowdown NR SU507693 (Rd'A)
16 Oct 10 Adult in Didcot garden SU521895 (Rd'A)

Apodemus flavicollis Yellow-necked Mouse

1 Jul 10 A male in mammal trap at Greenham Common SU500652 (AW)

Microtus agrestis Field Vole

3 Mar 10 to 23 Oct 10 seen on 57 occasions at Cholsey, about the same as in 2009.(TR/RR)

Clethrionomys glareolus Bank Vole

3 Mar 10 to 28 Oct 10 seen on 105 occasions at Cholsey, well up on 2009.(TR/RR)
1 Jul 10 Two in mammal traps at Greenham Common SU499652 (AW)

Arvicola terrestris Water Vole

10 Feb 10 One at Linear Park, Calcot SU663713 (JH)
9 May 10 Three at Hungerford Marsh SU327685 (JH)
29 Aug 10 A latrine at Sutton Courtenay EEC SU501917 (Rd'A)

THE WEATHER IN READING DURING 2010

Roger Brugge

National Centre for Earth Observation, Department of Meteorology, University of Reading

2010 was cooler than average overall. After a cold and snowy start to the year, spring brought some disruption due to volcanic ash which prevented aircraft movements and suppressed contrails at times in April and May. The summer could be said to have been an early one this year. After unusually mild weather at the start of November, it turned cold in the final week of that month with snowfalls – conditions that continued through December until the final few days of the year, leading to the coldest December locally since 1890. Thunderstorms were few and far between during the year.

January After some heavy snowfall late on the 5th until late afternoon on the 6th, a total of 27cm of lying snow was measured at 0900GMT on the 6th – the deepest cover on record for any month for at least 45 years. Following further falls, this snow did not disappear until the 16th – although on the 20th a further light dusting was observed. Temperatures remained below freezing on the 4th and 7th and there were 17 days with air frost, 26 with ground frost and 8 days when sleet or snow was seen to fall. However, in January 1985 there were 11 days with snowfall – but not the total depth of snow that we had this time – while in January 1979 we had 14 days with snow cover (compared to the 11 days this year). With all this snow and low temperatures from the 4th to 8th in particular, it was not surprisingly the coldest January since 1987.

Note that during the deepest snowfall the weather observers found it impossible to locate the soil thermometers without the risk of breaking them. The mean soil temperatures shown in the tables are therefore estimates based on reports from nearby weather stations.

February February was a cold and wet month overall. The month had nine days with sleet or snow falling, but amounts were slight – unlike in the previous two months – and there was only one morning with snow covering over half the ground. The second half of the month saw persistent low pressure, and this was the reason for the rainfall excess. Mean sea level (MSL) pressure averaged around 992mb for the second half of the month, some 25mb below average and overall was the lowest for February since 1966. After reaching 11.5°C on the 5th there were no further warm afternoons during the month – and soil temperatures in the upper 30cm of the soil averaged some 2°C below average for the month.

March The month started off cold with an air minimum temperature of -4.7°C on the 7th and a grass minimum reading of -12.2°C on the same morning. It did warm up, however, with 17.4°C on the 24th making this the warmest afternoon in March since 2005. The first half of the month was fairly dry, cool and anticyclonic – but there were disturbed and wet conditions in the second half of the month.

April April 2010 will be remembered for the impact of volcanic ash on human activity – specifically leading to the closure of local air space for a few days. This was partly down to an unusually persistent airflow from the north and north-west. The 7th to 23rd was a dry, anticyclonic period when soil temperatures climbed rapidly as a result; in some places close to the University the dry spell lasted for up to 20 days. After the 5th daytime temperatures were generally above average but clear spells led to a few cool nights – and sunny days. It was a warm month overall, although night-time temperatures were slightly below average. The 18 ground frosts noted during the month was about 4 more than normal while it turned out to be the second sunniest April since 1984 (2007 was marginally sunnier).

May Volcanic ash was again a slight problem during the first week. Temperatures during the first half of month varied little – with the result that mid-month we were heading for a cool month. Then an about-turn brought anticyclonic conditions and a warming – helped by the fact that only 5 days produced more than 1mm of rain during the month. The air temperature peaked at 27.3°C on the 24th – the highest May reading since 2005. Despite this, May was the coolest since 1996. Although the total rainfall was less than 40% of average, the sunshine total was almost spot on the average – due in part to some rather dull conditions in the first ten days. There were two air frosts during the months (after none in April) – for the first time in May since 1997 and giving the coldest May night since 1980.

June June was a month with two warm spells and two wet days. The first six days were warm and then there was a notably sunny spell that lasted a week from the 22nd with warm conditions that continued to the end of the month. 28.4°C was reached on the 28th, while some falls of Saharan dust were deposited locally in slight rainfall early on the 29th. Overall it was the warmest June since 2006. The two wet days were the 7th and 13th – only on three days did more than 1mm fall – while the last ground frost of the ‘spring’ occurred on the 19th. Winds from a north-easterly quarter were unusually prevalent, helping to make it the driest June since 2006. By the end of the month barely 35mm of rain had fallen in nine weeks – resulting in dry ground.

July July was remarkable at the University for reaching at least 20°C every day of the month – most months generally fail to reach such a temperature in Berkshire at some time. It was a wet month with almost half the total fall happening on the 22nd – while the sunshine total for the month was below average. Apart from the 22nd the four months March-July were much drier than average; similarly dry springs/early summers have included 1976, 1990 and 1995 in recent years. The temperature reached 29.5°C on the 9th and daytime temperatures averaged 1.5°C above the normal for the month.

August August was a dull and wet month with only about two-thirds of the normal sunshine amount, while the total rainfall was close to twice the average. 28mm of rain fell on the 25th, the wettest day of the year. The cloudy conditions prevented the daytime temperature from rising above 24.2°C all month (making the warmest day an unusually cool one). Daytime temperatures were consequently 1.5°C below average – although the nights never really felt cold until the final two days of the month. It was the wettest August since 2004 - not a very good end to the summer!

September September was a relatively dry month with much of the precipitation falling on just three days, although parts of Reading did see some heavy rain for a brief period on the 23rd during a thunderstorm. The first ground frosts of the autumn occurred during the month – while, overall, temperatures averaged out quite close to the expected values for the month,

October October brought the first air frosts of the ‘winter’ – two of them – and there were also eight ground frosts. After a wet first couple of days, daytime temperatures actually rose to reach a high of 21.1°C on the 8th – a remarkably high reading for the time of year. Just 12 days later, the highest temperature, on the 20th, was just 8.9°C – cold for mid-October. The following night the temperature dropped to -1.6°C. Winds were generally light during the month – there were no traditional autumnal ‘blows’.

November November was a month of extremes. A temperature of 18.1°C was reached on the 4th in what was one of the four warmest November days of the past 50 years. Two days later the air pressure fell to 965mb – the lowest since at least 1950 but due to the structure of the low pressure system it did not turn correspondingly windy. It then turned very cold during the final week of the month – down to -5.8°C on the 28th; snow fell on two days and covered the ground by over 50% on one day, something that has become very unusual in November of late. More than half the days of the month had a ground frost.

December December continued on with the cold weather of the end of November – and became the coldest December since 1890 locally. A minimum temperature of -9.4°C on the 20th, 24 air frosts, sunshine that was well-below average and 12 days with lying snow just about sums up the month, which will long be remembered by meteorologists! The month was a dry one – snowfalls here were slight but the snow lingered on the ground due to the cold. Not until the final few days did daytime temperatures rise to their expected values.

| | | J | F | M | A | M | J | J | A | S | O | N | D | 2010 |
|--------------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|
| Total sunshine | h | 49.5 | 55.0 | 122.3 | 223.9 | 189.6 | 238.1 | 176.2 | 132.6 | 126.3 | 114.4 | 44.6 | 13.0 | 1485.5 |
| Percentage of average sunshine | % | 91 | 78 | 115 | 148 | 99 | 127 | 87 | 68 | 91 | 106 | 66 | 27 | 98 |
| Greatest daily sunshine total | h | 6.5 | 7.0 | 10.4 | 12.6 | 13.8 | 14.7 | 12.7 | 11.2 | 11.3 | 8.4 | 7.0 | 3.1 | 14.7 |
| Date | | 30 | 26 | 1 | 22,23 | 23 | 3 | 21 | 31 | 1 | 11 | 10 | 5 | 3 Jul |
| Number of sunless days | days | 11 | 12 | 4 | 2 | 1 | 1 | 1 | 4 | 7 | 7 | 13 | 19 | 82 |
| Mean 10cm soil temperature | °C | x | 2.8 | 5.0 | 8.4 | 12.7 | 17.7 | 19.2 | 16.4 | 13.6 | 10.1 | 5.9 | 1.1 | 10.3 |
| Mean 30cm soil temperature | °C | 3.4 | 4.3 | 6.3 | 9.4 | 12.0 | 16.1 | 18.5 | 17.1 | 15.1 | 12.4 | 8.7 | 3.7 | 11.3 |
| Mean 100cm soil temperature | °C | 5.7 | 5.4 | 6.4 | 8.8 | 10.8 | 13.6 | 16.2 | 16.4 | 15.4 | 13.7 | 11.0 | 6.5 | 11.2 |

SUMMARY WEATHER RECORDS: 2010 – UNIVERSITY OF READING (WHITEKNIGHTS)

| | | J | F | M | A | M | J | J | A | S | O | N | D | 2010 |
|----------------------------------|----|-------|------|-------|------|------|------|------|------|------|------|-------|-------|--------|
| Mean maximum temperature | °C | 4.2 | 6.7 | 10.7 | 15.1 | 16.8 | 22.4 | 23.5 | 20.3 | 18.4 | 14.7 | 8.6 | 3.5 | 13.7 |
| Mean maximum anomaly | °C | -3.1 | -1.0 | 0.4 | 2.4 | 0.3 | 3.1 | 1.5 | -1.5 | -0.1 | 0.2 | -1.7 | -4.6 | -0.4 |
| Mean minimum temperature | °C | -0.8 | 1.2 | 2.8 | 4.1 | 6.1 | 10.8 | 13.8 | 12.1 | 9.9 | 7.2 | 3.1 | -2.1 | 5.7 |
| Mean minimum anomaly | °C | -2.4 | -0.3 | -0.3 | -0.3 | -1.2 | 0.7 | 1.4 | 0.0 | -0.1 | 0.1 | -0.9 | -4.7 | -0.7 |
| Mean temperature | °C | 1.7 | 4.0 | 6.8 | 9.6 | 11.5 | 16.6 | 18.7 | 16.2 | 14.2 | 11 | 5.9 | 0.7 | 9.7 |
| Mean temperature anomaly | °C | -2.8 | -0.7 | 0 | 1.1 | -0.5 | 1.9 | 1.5 | -0.8 | -0.1 | 0.2 | -1.3 | -4.7 | -0.6 |
| Highest temperature | °C | 9.8 | 11.5 | 17.2 | 20.9 | 27.3 | 28.4 | 29.5 | 24.2 | 22.1 | 21.1 | 18.1 | 8.5 | 29.5 |
| Date | | 17 | 5 | 24 | 28 | 24 | 28 | 9 | 8 | 22 | 8 | 4 | 29 | 9 Jul |
| Lowest maximum temperature | °C | -0.8 | 2.8 | 5.1 | 9.8 | 9.8 | 15.0 | 20.0 | 16.5 | 13.0 | 8.9 | -0.1 | -0.9 | -0.9 |
| Date | | 7 | 6 | 7 | 1 | 8 | 1 | 23 | 13 | 25 | 20 | 28 | 6 | 6 Dec |
| Highest minimum temperature | °C | 4.5 | 6.5 | 9.9 | 8.9 | 12.0 | 15.2 | 17.1 | 18.0 | 16.0 | 14.8 | 14.0 | 5.9 | 18.0 |
| Date | | 23 | 25 | 25 | 25 | 21 | 29 | 2 | 21 | 11 | 9 | 5 | 30 | 21 Aug |
| Lowest temperature | °C | -8.2 | -2.9 | -4.6 | 0.2 | -1.0 | 6.5 | 10.0 | 6.4 | 5.0 | -1.6 | -5.8 | -9.4 | -9.4 |
| Date | | 7 | 21 | 7 | 17 | 12 | 19 | 6 | 31 | 25 | 21 | 28 | 20 | 20 Dec |
| Lowest grass minimum temperature | °C | -10.6 | -8.0 | -12.2 | x | -8.0 | -0.9 | 2.5 | 0.2 | -1.5 | -8.0 | -10.0 | -12.9 | -12.9 |
| Date | | 4 | 12 | 7 | x | 12 | 19 | 6 | 31 | 18 | 21 | 29 | 20 | 20 Dec |

| | | J | F | M | A | M | J | J | A | S | O | N | D | 2010 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| Total precipitation | mm | 65.4 | 66.3 | 42.3 | 25.9 | 17.7 | 17.8 | 46.6 | 97.3 | 44.0 | 53.5 | 47.7 | 20.7 | 545.2 |
| Percentage of the average precipitation | % | 110 | 164 | 91 | 55 | 38 | 36 | 113 | 185 | 77 | 83 | 81 | 32 | 87 |
| Number days with 0.2mm or more | days | 20 | 21 | 13 | 7 | 8 | 5 | 12 | 18 | 14 | 11 | 16 | 9 | 154 |
| Number of days with 1.0mm or more | days | 11 | 15 | 10 | 6 | 5 | 3 | 8 | 15 | 10 | 9 | 9 | 5 | 106 |
| Greatest fall in 24 hours | mm | 10.3 | 10.8 | 11.6 | 7.8 | 4.5 | 9.6 | 21.3 | 28.0 | 10.6 | 14.3 | 11.3 | 8.6 | 28.0 |
| Date | | 5 | 27 | 25 | 30 | 16 | 7 | 22 | 25 | 29 | 2 | 5 | 27 | 25 Aug |
| Number of days with air frost | days | 17 | 8 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 11 | 24 | 71 |
| Number of days with ground frost | days | 26 | 18 | 19 | 18 | 10 | 1 | 0 | 0 | 2 | 8 | 17 | 26 | 143 |
| Number of days with snow/sleet falling | days | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 23 |
| Days with 50% snow cover at 0900GMT | days | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 25 |
| Number of days with thunder | days | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| Number of days with ice pellets/small hail | days | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| No 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 6 | 11 |

| | | J | F | M | A | M | J | J | A | S | O | N | D | 2010 |
|--|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Number of days with gale | days | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of days with Northerly winds | days | 4 | 1 | 3 | 3 | 5 | 8 | 2 | 5 | 2 | 4 | 5 | 6 | 48 |
| Number of days with North-Easterly winds | days | 5 | 7 | 4 | 8 | 5 | 3 | 0 | 1 | 1 | 4 | 3 | 8 | 49 |
| Number of days with Easterly winds | days | 5 | 2 | 4 | 0 | 7 | 4 | 2 | 0 | 7 | 4 | 1 | 1 | 37 |
| Number of days with South-Easterly winds | days | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 8 |
| Number of days with Southerly winds | days | 3 | 6 | 5 | 5 | 4 | 5 | 5 | 4 | 5 | 5 | 3 | 1 | 51 |
| Number of days with South-Westerly winds | days | 4 | 3 | 5 | 4 | 3 | 3 | 14 | 10 | 5 | 6 | 7 | 5 | 69 |
| Number of days with Westerly winds | days | 4 | 4 | 7 | 5 | 1 | 4 | 4 | 8 | 4 | 2 | 1 | 5 | 49 |
| Number of days with North-Westerly winds | days | 4 | 3 | 3 | 4 | 6 | 1 | 4 | 3 | 5 | 4 | 4 | 3 | 44 |
| No of days with calm winds at 0900GMT | days | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 5 | 1 | 10 |
| Mean wind speed | mph | 4.3 | 6.1 | 6.0 | 7.0 | 7.0 | 5.5 | 5.0 | 7.2 | 6.9 | 6.4 | 5.0 | 4.7 | 5.9 |
| Mean cloud cover at 0900GMT | % | 72 | 86 | 69 | 55 | 65 | 63 | 74 | 85 | 78 | 73 | 74 | 92 | 74 |