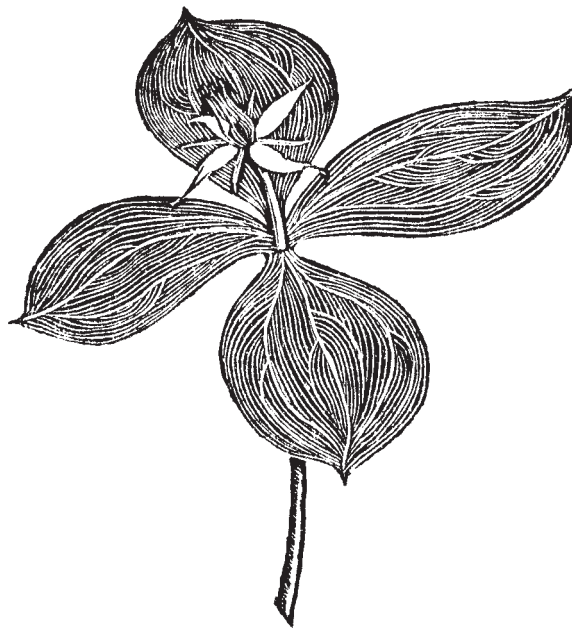


The Reading Naturalist

No. 58



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THE READING NATURALIST

No 58 for the year 2005

The Journal of the
Reading and District Natural History Society

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EDITORIAL - 125 Years

The society was formed on 16th April 1881 - 125 years ago this April. In celebration of this fact a couple of photographs from the archives are reproduced opposite.

The first one shows future members of the society on an outing to Pamber Forest in the previous August. Butterfly nets are much in evidence and in those days there would have been far more butterflies to provide "good sport". Some members of the party carry fronds of Bracken, presumably to waft off flies, while Purnell (christian names perhaps regarded as overfamiliar!) is clutching a sprig of Cherry Laurel which may be to charge his killing bottle (the crushed leaves give off hydrogen cyanide and were widely used for this purpose), or maybe it was simply to deter flies again

The second photograph is more recent and shows a young Shirley Townend and Brian Baker. Nets are again in evidence: C. Runge has a kite net with white netting which would have been to catch other insects rather than butterflies and Shirley is holding a large butterfly net - perhaps Brian's? In the front row, Mrs. Hodgson has a tin vasculum which would have been used to collect plant specimens (I have one just like it from 10 years later).

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READING AND DISTRICT NATURAL: HISTORY SOCIETY

Excursion to Pamber Forest, August 1880 prior to the formal foundation of the Society on 6th April, 1881

L to R: Holland, Purnell, Wallis, Dr. Stevens, Hewett, Ward, Hawkins, Leslie, Wells, Pollard.

Walter Pollard, Phillbanks, A.N. Other



READING AND DISTRICT NATURAL: HISTORY SOCIETY

Excursion to Pamber Forest, 20th July, 1955

Standing: C. Runge, Miss S.Y. Townend, B.R. Baker, Miss J. Watson.

Seated: Mrs Hodgson, Mrs A.M. Simmonds, Miss L.E. Cobb, Miss C. Stone, Miss M.M. Swadling, Miss R. Brown

OBITUARIES

Phil Staines Member 1987-2005

“Not bad for a 77 year old!” These were Phil’s words after he had climbed up the very steep slope at Aston Rowant in June 2003. Phil’s physique was lean, but the feat was quite amazing as he had had a life-threatening illness some years previously. He enjoyed the excursions with the society, but often disappeared into the undergrowth to follow an elusive butterfly and would catch the main party up later!

He attended many of the winter meetings and often had a series of slides to show at the member’s evenings. Photography was his great hobby, and combining this with his love of butterflies, he produced some really stunning pictures. Over the years, some of these had been turned into really first rate calendars.

He was a valued member of the Committee on two separate occasions — 1992-1995 and 2000-2003.

His last big contribution to the life of the Society was in September, 2003, when he played his full part in displaying photos at the RDNHS stand at the Caversham Festival. This occasion was almost a full circle for Phil, as he had lived in Gosbrook Road, Caversham when young. From there he had spent many happy hours in The Warren finding and teaching himself the butterflies in the hedgerows and nearby fields.

Phil had wanted to visit Porton Down with the Society in July 2005, and provisionally had booked for this. Sadly he died in the spring, so this last ambition was never fulfilled.

Phil, we miss you, and the contributions you made to the Society. You will always be remembered by those of us who counted you as one of our friends.

John Marshall Member 1991-2005

It is with sadness that the Society records the death of John last February at the comparatively early age of 65. Our deepest sympathy is extended to Brenda, his wife, in her sad loss. John was a man of so many hobbies and interests, it will be necessary to restrict this obituary to those that impinged on the Society.

One of the best memories that most people will have of John and Brenda together is the mothing night in July 2003 held in their garden on Kidmore End Road, Emmer Green. It was a superb evening, with a chance to look round their garden and walk into John and Brenda’s adjoining wood beforehand. As their garden and house are the last on the lane, much wildlife is attracted around it. It was one of John’s delights to watch the birds and all the other animals and plants that lived and grew in and around the area. This same house had been his childhood home, and in his early years he had been able to wander at will across the fields and observe wildlife at every season of the year.

John was an excellent photographer. At the last Christmas party members were able to look again at a selection of pictures that Brenda had chosen from his vast collection. Two years ago, John’s slide presentation of “The garden through the Year” showed hoar frost, through bright summer flowers and back again to snowflakes — absolutely brilliant!

John was a quiet man, but greatly appreciated by the Committee, on which he served 2001-2004. When John spoke at the meetings it was always something well thought out and relevant. John, with Brenda, did a great deal of “behind the scenes” work. Their cars were seldom without additional passengers, who would have been unable to attend both indoor and outdoor meeting without the Marshall’s help. At the Caversham Festival in 2003, and on many other occasions, John was to be seen erecting stands and bringing other equipment with him.

Please allow a personal memory. John was responsible for my first Red Kite sighting! It was an RDNHS excursion to Watlington Hill in the early 1990’s. Through his binoculars, John spotted a Red Kite flying very high over Shirburn Hill. It was early days after the reintroduction. The bird was a black dot in the sky, and impossible to identify unless you have the “gizz”. The bird came lower and nearer – and a Red Kite it was! The excitement was immense!

The members of the Society will ever be grateful for everything about John that they enjoyed over the last 14 or so years. A big "Thank You" John!

Hilda D. Lambden BSc., MIBiol.

Hilda was a member of the society for many years, and is well remembered for her major contribution to the Society as editor of *The Reading Naturalist* which she was from 1985 to 1991. She hosted committee meetings at her home in Earley, and was renowned for the coconut pyramids she treated members to. Some of her early teaching days were at the Alfred Sutton Secondary School in Reading where she combined biology with needlework. In 1955 she became a lecturer in the Biology Section of the Reading Technical College where she remained until her retirement. Hilda was a great supporter of BBONT and with her friend Marjorie Lee helped with many of the sales of goods especially at the Earley Carnival when it was held in Laurel Park.

PRESIDENTIAL MUSINGS

125 AND GOING STRONG

Chris Bucke

In April 2006 the Society will have been in existence for 125 years. The first organised outing was to the Pamber Forest, a trip that will be repeated this year. For us it will be a simple matter of driving to the starting point, a journey of no more than 30 minutes from Reading. In 1881 the trip would have required a much more serious commitment of time and effort, for instance many of the roads would not have been metalled and in April muddy roads may well have been a major problem. Then, as now, the Society's area of activity is a 20 miles radius from Reading. Then it was a courageously large area to choose, now it does not seem very large (but some members are reluctant to travel that far!)

The pioneers of the Society would have seen very different scenes from those viewed today. The scale and nature of agriculture would have been very different, there would have been much more unimproved grassland, particularly in the downs, more hedges, more roadside verges and smaller villages. The Kennet and Thames valleys would have been very different with few, if any, large gravel pits and correspondingly more agricultural land. The number of habitats for water birds may have been fewer, though species such as Redshanks would have nested in the water meadows. The pioneers would not have encountered species such as Himalayan Balsam by the waterways, or have been wakened in the mornings by the "uniiiiiiited" call of Collared Doves. Arable weeds such as Cornflower, Corn Cockle and Corn Marigold hardly merited comment. The pioneers would have been precisely that: the word "conservation" would not have been applied to natural history. Rewarding areas to visit, such as Pamber Forest, would have been known but there were no nature reserves or Sites of Special Scientific Interest to guide members to locations of rare species. Attitudes to conservation would have been very different: members would have collected flowers to press, they would have carried killing jars when adding to their butterfly collections, egg collecting may have been a popular activity and it was not unusual for rare species of bird to be shot to ease identification: the maxim of the time was: "What's hit's history, what's missed's mystery". The need for conservation would not have been recognised by the average member, and in the face of such abundance, who could blame them?

Since 1881 the changes in the environment have been huge. The consequences of two world wars and agricultural depressions and booms have been profound but the need to conserve species and habitats is now recognised thoroughly by natural historians, less so by "developers" and the government in building roads. There will be changes in the next 125 years far more profound than those of the past 125. In the short term one can be optimistic about the preservation of nature reserves and the return of cultivated land to a more "wild" condition. In the short term it will be fascinating to see the consequences of global warming – will our climate become more Mediterranean or will it become colder as a consequence of the gulf stream losing its strength? In the longer term, sea levels rising as a consequence of rising temperatures can only have adverse effects. We are fortunate to be active in natural history at the present time, using and building upon the experience of our pioneer predecessors and we must do everything that we can to maintain the standards that they set.

MEMBERS' OBSERVATIONS

Cath Butcher & Tony Rayner

Before each evening talk, members & visitors are invited to announce their recent observations. Here is a selection, particularly of the birds since others tend to be incorporated into the recorders' reports shown elsewhere in this publication. Where not provided, no precise date or grid reference is quoted.

- 5th Oct 04 Trevor Cotton had seen Hummingbird Hawkmoths at Englefield Garden Centre, Michael Keith-Lucas had also seen some, and an Elephant Hawkmoth caterpillar, a visitor reported the Hoverfly *Volucella zonaria*, Jan Haseler had found a newborn slow-worm in her Tilehurst garden (SU666742). Other records in gardens included Alice Ayers who had seen a Parakeet in Earley, Nuthatches in Reading reported by Veronica Vincent & Chris Bucke and 18 Goldfinches feeding in Heather Baker's garden in Caversham.
- 19th Oct 04 Chris Bucke mentioned an Orange Peel fungus 8" diameter at Wasing Wood; Martin Sell reported a Hornets' nest & 3 bats at Theale Gravel Pits. Jan Haseler had seen a Grass Snake at Moor Copse, 4 Yellow-line Quaker & Blair's Shoulder Knot moths trapped in her Tilehurst garden. Roger Frankum was surprised by a Common Frog in a downstairs toilet at Upper Bucklebury while Yvonne Robertson saw a Fox walking through a garage at Crowthorne.
- 2nd Nov 04 Chris Bucke reported a Brimstone butterfly at Aston Rowant and a *Ganoderma* bracket fungus in a dead Poplar. Garden records included Ivy Brickstock's Brimstone butterfly in Tilehurst and Tony Rayner's Chiffchaff in Cholsey (SU 592868).
- 16th Nov 04 Martin Sell had seen a late bumblebee on the 14th and a Short-eared Owl. Jan Hesler reported Primroses in flower at Moor Copse. Tony Rayner saw a Barn Owl flying over Pangbourne Village Hall just before meeting.
- 4th Jan 05 Chris Bucke reported 7 Waxwings and an early Spring Usher moth. Martin Sell had seen 2 Tawny Owls, and 2 Red Kites displaying and Ken Thomas had seen a Grey Wagtail on New Year's Day.
- 18th Jan 05 Chris Bucke had seen another Waxwing, but, not to be outdone, Martin Sell reported 9 Short-eared Owls at Bury Down and 15 Waxwings at Bracknell!
- 1st Feb 05 Colin Dibb had seen 2 Buzzards feeding on Partridge and surrounded by 5 Red Kites at Checkendon, and Goldfinch feeding on Lemon Balm. Ray Lush had seen 3 Goldfinches.
- 15th Feb 05 Roger Frankum reported a Raven at Hungerford. Martin Sell had seen Green Sandpiper at Theale & Coltsfoot in flower. Tony Rayner mentioned 5 Stonechats at Bury Down two days previously. Graham Saunders had seen Sweet Violet in flower at Tadley and another member mentioned Winter Heliotrope at Harvester pub in Tilehurst.
- 1st Mar 05 Brian Walker had seen 3 Goldcrests at Caversham

- 4th Oct 05 Earlier that day, Tony and Ro Rayner had spotted at least 4 Chiffchaffs around Cholsey meadow. SU 592868 and Tony had seen Golden Plovers and Lapwings feeding in field above Blewbury, male Stonechat on Berks Downs above Aston Upthorpe, Buzzards and Red Kites on the Berks Downs - too many and too mobile to accurately count. On the 27th Sept., between 14.00 and 14.05, he had seen a Peregrine, Red Kite and Hobby at Red Cow, Cholsey.
- 25th Oct 05 Meryl Beek reported a Painted Lady (scarce in 2005) and Tim Wilder had seen a Ring Ouzel at Fulscot
- 1st Nov 05 Tony Rayner had seen a male Stonechat on Berks Downs above Aston Upthorpe, on 4th October and a different one earlier today.
- 15th Nov 05 Susan Twitchett was surprised to see an Azure-winged Magpie in Pangbourne Village Hall car park. Earlier in the month, Tony Rayner had seen 4 female/immature Bullfinches and a female Blackcap in his Cholsey garden on the 7th and he and Ro watched a Sparrowhawk plucking a Wood Pigeon before flying off with it there on the 9th.

EXCURSIONS: January – December 05

Meryl Beek

2005 was an interesting and steady year for the Society's excursions. Most were very well supported and some new leaders and new venues were discovered.

The season began on Saturday January 29th when Martin Sell led his usual coastal bird watch. This time the venue was Pennington Marshes, and then later in the day in the New Forest. 11 members and friends attended and it was nice to re-establish contact with Neville and Mary Diserens, who live nearby in the New Forest.

Members were back on the local stamping ground at Mapledurham on Saturday February 19th when once again Séan O'Leary led a mosses and liverworts morning. Attendance, at 17, was good, and, as usual, Séan gave an introductory talk on identification. Unfortunately no liverworts were found, but the mosses were there. On this very early spring morning it was good to hear a Mistle Thrush singing, observe a large number of ladybirds clustered on fence posts, and to see Lesser Celandines, Red Dead-nettles and Dog's Mercury in flower.

Sally Rankin's Wild Daffodil walk in Grey's Green area on Saturday March 12th was very well advertised locally. 15 members came and approximately 30 other people who had read about it in the newspapers! This did not eventually produce too many problems but, unfortunately, the date chosen was a bit early for daffodils in 2005, as only two were actually in flower. A botanical list produced 12 other wild flowers seen in flower, including Snowdrops, Primroses and Spurge Laurel. Many reported that they had been back to the site a fortnight or so later and seen the daffodils properly out.

On Saturday April 2nd, 11 members led by Alice Ayers enjoyed the Lesser Celandines and Primroses in warm sunshine on a walk in the Knowl Hill area. Buzzard, Sparrowhawk, Tree-creeper, Chiffchaff and Goldcrest were among the birds spotted. Hard Fern (*Blechnum spicant*), Hart's Tongue (*Phyllitis scolopendrium*) and Drooping Sedge (*Carex pendula*) were recorded. The finale was provided by a herd of over 30 Fallow Deer which galloped one after another across the path like an animated frieze.

Monday evening, April 25th saw a group of 15 members at Moor Copse, the favourite BBOWT reserve in the area. The party was led by Anne Booth, the warden, who explained some of the management work. Spring was coming apace and although the Bluebells were not yet fully out there was a good smell in the woods! It was nice to hear the Chiffchaff and Greater Spotted Woodpecker, and see large amounts of Goldilocks Buttercup (*Ranunculus auricomus*), together with Wood and Sun Sparges.

Rod d'Ayala led a field trip to Little Wittenham on Saturday April 30th. In glorious sunshine 13 members climbed the steep hill to Wittenham Clumps and enjoyed spectacular views over the Chilterns, Berkshire Downs and the Thames Valley. Rod explained how the water levels in the woodland nearby are being controlled to provide ideal conditions for amphibians and dragonflies. Sightings included Loddon Lilies and a Lesser Whitethroat. At the end of the afternoon Rod did some pond-dipping, (he has a licence to do this) and the party were able to examine a female Great Crested Newt. Super afternoon.

It was Janet Welsh's turn to lead an excursion on Saturday May 7th when 14 people joined her at Clayfield Copse and the surrounding area. It was a wonderful excursion, with tea afterwards at Janet's for those who were able to stay later. At the edge of the copse the Wild Pear was seen, and also several Wild Service Trees. 13+ Early Purple Orchids were out, and on private ground nearby, Shepherd's Needle (*Scandix pecten-veneris*), still relatively rare, was growing in profusion.

The Burghfield Road area was the venue on Monday May 9th for Martin Sell's annual local Nightingales and warblers evening. About 6 members of the Society attended, but wide advertisement through BBOWT brought people from all over. At the last count the total was 57! Hopefully the Nightingales didn't mind!

15 people attended Tony Rayner's excursion to Cholsey Marsh on Sunday May 15th. The purpose was to walk along the river looking for Loddon Lilies, dragonflies and wetland warblers. Certainly the dragonflies turned up well, the Club-tailed Dragonfly and Banded Demoiselle were seen, among others, also plenty of butterflies and plants.

On Tuesday evening, May 24th, Chris Bucke met thirteen members at the Lower Basildon end of Hook End Lane and walked up the chalk downland to a point above Hook End Farm. This repeated a walk done in 2003 which identified the area as being of considerable interest. The interest was confirmed, some unusual species being found, such a Common Gromwell and unusual amounts of Vervain. One fewer orchid being found than in 2003, i.e. none. There was evidence of a lot of Badger activity. It was agreed the area would be worth visiting later in the year. (This proved to be the case: On 10th July the chalk grassland flowers were superb, the slope above Hook End Farm being particularly good with many Pyramidal Orchids and magnificent displays of Marjoram. The Vervain was in full bloom and seemed a darker purple than usual.)

Sunday June 15th saw Michael Keith-Lucas lead a society field trip of 15 people to Ashford Hill National Nature Reserve, which is a rare example of unimproved damp acid grassland - a botanist's paradise. Dyer's Greenweed (*Genista tinctoria*) was coming into flower on the ant hills, with other flowers, including Marsh Speedwell (*Veronica scutellata*) and Water Violet (*Hottonia palustris*). A real afternoon of goodies!

On Saturday June 23rd, fourteen members and guests met Chris Bucke at Bradenham and walked to Butlers Hangings BBOWT reserve via Piper's Hanging Wood and Noble's Farm. The weather was dull but dry. The reserve came up to expectations with a good display of Pyramidal and Spotted Orchids plus a few Bee Orchids. A small amount of Wild Candytuft was seen. There were many butterflies, some members saw their first Marbled Whites of the summer, also Small Heaths, Ringlets, Meadow Browns, Common Blues, Red Admirals and Commas. The walk was extended (rather a lot!) by descending to Slough Lane and returning via Slough Bottom Farm. The grassland to the north of the reserve was as interesting as the reserve itself, as was the downland above Slough Lane Farm and the fields below Alnut's Wood. Backmarkers at Slough Lane Farm were rewarded by seeing three Hares. It was a pleasant afternoon, well worth repeating.

On Saturday July 2nd the long awaited visit to Porton Down actually arrived! It lived up to expectations and the 30 or so who travelled there were not disappointed. Although the weather was a little dull, morning and afternoon walks on the site were good. In the morning most of the party had a good view of a Stone Curlew through the telescope. Botanically, the memories will be the whole hillside of yellow Rockrose, a large number of Yellow Bird's-Nest (*Monotropa hypopitys*) in the nearby woods and a field of Meadow Clary (*Salvia pratensis*) which would have been much better a week or so earlier. The arrangements for this visit were quite high-powered, having supplied all details (including dates of birth of those attending) the party were let in, and no spies eliminated.

To make a change, Hartslock was visited at a time when the Monkey Orchids were not out! The visit took place on Saturday July 9th and was led by Chris Raper, who showed the party of 11 some of the chalk grassland delights around later in the season.

A new venue for the Society was led on Saturday July 23rd by John Lerpiniere, who took a small party into the new nature reserve (which has open access) in Paices Wood near Aldermaston. The area contains an ex-gravel pit with old woodland. A pleasant afternoon was had by those who attended.

The annual mothing night was held in the Harris garden at Reading University on Friday night, July 29th. Eleven members and friends enjoyed staying up late on a rather chilly night and saw a variety of moths though little of special note.

Saturday August 6th saw 9 members accompany Graham Saunders to the gardens of The Vyne, a National Trust house near Sherborne St. John in north Hampshire. The purpose of the visit was to learn about hoverflies, and about 6 different kinds were identified, including a large specimen in the walled garden which looked like a bumble bee!

Sandra Conn, who is the owner of Boztdown Vineyard at Whitchurch-on-Thames kindly gave 21 members and friends a guided tour on August 13th to look especially at the plants and butterflies on this site. Unfortunately, it started to rain just as the walk began, but the flowers high up on the chalk hillside were superb and included Catmint, Small Scabious, Pale Toadflax with a darker purple variety, and lots of Vervain. Unfortunately, the butterflies had gone to bed for a wet afternoon.

Sliding Hill, near Swyncombe, had been visited last in August 2001, so it was felt a return was in order! Meryl Beek led 16 members there on Saturday August 27th and it proved very worthwhile. Large numbers of late-flowering chalkland plants were doing well on this ancient hillfort, including Pale Toadflax, Mignonette, Rock-rose, Candytuft, Fairy Flax, milkwort and many more. Butterflies were good too, and the speciality of the site, the Silver-spotted Skipper was seen in all its glory.

On Saturday, September 3rd, Malcolm Storey led a small group around Bucklebury Common, on a dry autumn day. Very few fungi were found, although a patch of about 10 *Cordyceps ophioglossoides* was seen, growing from buried false truffles (*Elaphomyces*). The party went on to explore areas of the common which had been cleared of pine and birch and scraped last winter to remove accumulated peat and pine needles to encourage Heather regeneration. Further large areas will be similarly treated in early 2006.

Saturday, September 24th saw Gordon Crutchfield lead another fungus foray. This time it was at Greenmoor Pond and Common Wood, Woodcote and about 20 members attended. The list of fungi has been forwarded to the Fungus Recorder, but it is interesting to note that the Woodcote Conservation Group is just about to embark on a recording exercise for village flora and fauna. They were very impressed with the Society's list of 40+ species of fungi found on September 24th, so they reckon this will get the conservation group off to a good start. That's what it's all about isn't it?

On Saturday, October 15th, an unexpectedly warm and sunny day, 14 members met at Stratfield Mortimer Church and walked southwards, initially on the Berkshire Circular Route, aiming to reach the Roman amphitheatre at Silchester. In the event, the number and diversity of plants in bloom slowed the party so much that the majority returned from the Devil's Highway, only four completing the planned tour. Over 40 species were found in flower, including high summer plants such as Common Mullein and Viper's Bugloss. Perhaps the rarest species seen were White Melilot, and, in a dried-up pond, Marsh Yellow-cress (*Rorippa islandica*). Red Admiral, Comma and Speckled Wood butterflies put in an appearance, the Devil had not yet claimed the blackberries and a Red Kite was apparently in residence in the woods adjacent to the amphitheatre. Thank you Chris Bucke for such an enjoyable outing.

"The best laid plans etc." certainly applied to the coach outing to Westonbirt Arboretum, Tetbury, Gloucestershire on Thursday, November, 3rd. It was a combined trip with Reading Gardeners and 32 had booked and were geared up to go. Then, on the afternoon of November 2nd, Westonbirt phoned to say the Arboretum would probably be closed the next day due to high winds expected overnight!

To cut a long story short, the party did get to Westonbirt, but it was a near thing. The Met. Office did not agree that Westonbirt could be open on the 3rd until 8am. The storm had fortunately missed the Tetbury area.

Perhaps all this resulted in there being an extremely good social atmosphere between the two societies, and all enjoyed the autumn colours to the full. There must be a repeat outing to another garden in the near future.

The Mapledurham area on Saturday, December 10th provided a fitting end to a year of good excursions. 7 members enjoyed a sunny walk. Spindle was prolific in the hedgerows. There were good numbers of Fieldfares, Redwings and Mistle Thrushes, and a Grey Wagtail and Yellowhammer were seen. A Kingfisher flew across the Mill Pond and a Buzzard landed nearby during the walk. Thank you Alice and Eric Ayers for leading this walk at short notice.

This has been a good year of variety of location, and numbers have been very encouraging. Thank you everybody, leaders and participants, for another successful year. Now the Society looks forward to its 125th Anniversary celebration in 2006.

WEDNESDAY WALKS

Meryl Beek

There have been 9 in the year, as Ken agreed to do 3 "unofficial, unplanned" ones over the winter months. All these have been enjoyed to the full.

17 people braved the January weather on 19th and enjoyed a pleasant if rather muddy walk in Peppard, Sonning and Kingwood Common area. Red Kites and Fieldfare were seen, but *Daphne laureola* was the only botanical contribution.

March 17th saw 11 stalwarts walking in the Woodcote area on a warming up spring morning. There were good distant views over towards Cholsey and Didcot. A find in the nearby woods was a clump of Green Hellebore and one Wild Daffodil!

A contingent of 17 met on April 20th for a walk in the Shiplake area. The *pièce de resistance* was a White Comfrey (*Symphytum orientale*), found at the side of the road where several plants seemed quite happy.

Another walk with 17 visited the Frilsham area on May 18th. This was an extremely rewarding walk botanically. Meadow Saxifrage (*Saxifraga granulata*) and Greater Celandine (*Chelidonium majus*), which is St Frideswide's plant, were found in the churchyard. Also Three-veined Sandwort (*Moehringia trinervia*) was another good find.

Unfortunately only 6 people made the walk on June 15th at Hartley Wintney. It was a cold day with light rain, which had cleared and warmed up by lunchtime. Quite a list of plants included lots of Weld (*Reseda luteola*). A Mullein Moth caterpillar was seen.

On July 13th 10 people walked in the Goring and Great Chalk Wood area on a very hot morning but a pleasant 4 miles. Long-stalked Cranesbill (*Geranium columbinum*) was found, and there was great excitement when a White Admiral butterfly flew past.

A rainy walk in the Dorchester area was the venue for 14 people on August 24th to explore the rivers Thame and Isis as they meander around the ancient village. Around 200 Canada Geese were seen in a surrounding field, and, interestingly, there were 7 Greylag Geese among the party! Some late summer water loving plants were observed including Watermint, Orange Balsam (*Impatiens capensis*) and Yellow Waterlily,

On the walk around Wokingham, which took place on September 21st about 30 fungi were recorded in the woods. The highlight was Gallant Soldier (*Galinsoga quadriradiata*). Other interesting finds were Bell Heather and Heather reminding the party they were in a heathland environment in that part of Berkshire.

The Ipsden walk on November 16th completed a good season. The weather was cold, but the views were extremely clear, especially from the top of Garson's Hill. 13 people enjoyed the good autumn colours - and the baguettes in the Black Horse, at Checkendon afterwards!

Thank you Ken for a varied and interesting year. The Society looks forward to another in 2006!

MEMBERSHIP

Norman Hall

The following members were welcomed to the Society in calendar year 2005:

Carol Harman

Pat Martin

Julia Cox

Barbara Jones

Audrey Hawthorne

Mark Calway

Grahame Hawker

Julia Cooper

Ian Duddle

Tony Calvert

Charles Cotgreave

Mike Lelliott

Hester Casey

Jane Brownlee

Martin Parham

Chris Shayler

Alan Strachan

Mark Foulkes & family (Rachel & Owen)

Dr Jeremy Burchardt (rejoining)

Graham Vick (rejoining)

THE FISHLOCK PRIZE

£50 was awarded to the Braywick Wildlife Watch Group for the purchase of equipment.

INDOOR MEETINGS 2005

Colin Dibb & Tony Rayner

Members seeking further information about any of the talks outlined here should ask to see the minutes book kept by the Secretary. Several of the speakers provide a detailed account of their talk which can only be precised below. (Attendances are shown in brackets.)

4th January (65) - Michael Keith-Lucas Global Warming, Fact or Fiction.

Dr Michael Keith-Lucas, a long-standing member of the Society, spoke on 'Global Warming - fact or fiction - possible consequences'. Carbon dioxide levels have risen to 378 ppm from the long term norm of 270 due to burning fossil fuels and release from oceans. Methane has a greater effect and is increasing also with fears that much more will be released from thawing tundra. Ozone, nitrous oxide and CFCs are also included in the 'greenhouse gases' which absorb heat radiation from the sun and prevent it radiating back out to space. However, without them, the earth's temperature would be -18°C compared with +15°C. Temperature (measured as the average from meteorological stations) is related to the earth's orbit and changes in its axis as well as the varying output of solar energy. It decreased from 1940 to 1960 but is now rising to a level higher than anytime since the end of the Cretaceous Period 65 million years ago. If we stop burning fossil fuel now, the temperature will still rise. The south of Britain will become like the present Mediterranean with crops like sunflowers being grown. There will be more summer droughts and winter storms and floods. Clear nights in spring will give late frosts and prevent Beech trees setting seed (mast). Sunny autumns will give good leaf colours. Conversely, Scotland may well become more stormy with flooding and low-branching trees will survive better than upright conifers. There are signs now of plants migrating northwards and newcomers arriving from the south. Casualties will include mountain plants that have nowhere to go. As coniferous timber trees will grow more quickly, their wood will be weaker. Conversely, broadleaved trees will not grow quicker as they will suffer from water stress. The nutritional value of some staple foods will fall as carbon content increases and nitrogen decreases. Europe's largest desert in Spain will increase in size with an ingress of South African plants. There could be a 70m rise in sea levels which will engulf 95% of the earth's cities. Cultivable ground will decrease by half and population will inevitably reduce.

18th January (62) - John Akeroyd - The Lost World of Saxon Transylvania

Dr John Akeroyd is a freelance botanist, conservationist and writer who spoke on 'the Lost World of Saxon Transylvania'. This area of Romania is undulating lowland at 400 - 800m height and reminiscent of pre-Enclosure Britain as documented by John Clare. Like England, it was occupied by the Romans and then the Saxons whose descendants are now being offered grants to return to Germany. This was the Christian frontline held by Vlad the Impaler against the Muslim Tartars from the east. The villages are medieval with wide verges of herbs under pear trees and subsistence holdings with cattle and sheep being grazed on communal pastures. Wolves and bears predate on the livestock. The hay meadows are cut by scythe and motive power is by horses. Crops include cereals, maize, beans, squashes and hemp for fibre. Soils are alkaline with some leached acidic wetter areas giving a profusion of diverse wildlife. The upland meadows are particularly rich with over thirty species of legumes and many orchids but overgrazing with sheep is threatening the balance and allowing aliens to invade. Woodland pasture is another threatened habitat but it is difficult to get the local people to take conservation seriously when they are still surrounded by many examples of rich habitats. Some medicinal plants are threatened by indiscriminate collecting by gypsies to fill a huge market in Germany. Future preservation of this way of life may well lie in eco-tourism and the sale of specialist products such as cheese, butter, milk and hams. Roving Romania is one company specialising in travel to Transylvania.

1st February (57) - Stuart Corbett - Conservation and Wildlife at Porton Down.

Our speaker was Stuart Corbett speaking about Porton Down which we will be visiting later in the year. The site was acquired in 1916 to research mustard gas and is currently working on defence against chemical and biological weapons. Overall, it is 7,000 acres (2,833 hectares) of which 10% is woodland. The wealth of wildlife reflects the absence of modern farming. Rabbits have replaced sheep, and Foxes, Badgers, Weasels, Stoats, Roedeer, Fallow Deer and a few Muntjacs are present. There are many archeological features from the Bronze Age onwards. The demise of Juniper is a European problem and their regeneration is being studied. Some are reaching the end of their lifespan at 100 years; the 50 year old ones originated in a time of reduced grazing pressure after myxomatosis. There is little renewal now except where there is more human activity. Scots Pine self seeds and this, and scrub, is being cleared by hand, machine and by weed wiper. Stone Curlew is severely predated by an, as yet, unidentified, nocturnal visitor robbing the nests. All birds are identified by leg rings and one is known to be twenty years old. The site is the best in the country for butterflies which include the Silver-spotted Skipper and the Marsh Fritillary which, for the first time, has used the Small Scabious as host. The Narrow-lipped Helleborine is found under Beech and Lady Orchid is present. Access to the site is severely restricted to maintain this pristine habitat.

15th February (50) - Lawrence Bee - Introduction to British Spiders

Lawrence Bee, who is the Education and Publicity Officer of the British Arachnological Society, gave us an 'Introduction to British Spiders'. There are 630 species, many of them more brightly coloured and/or patterned than the dull house spider. Their characteristic eight legs are shared by false scorpions, harvestmen and mites. They normally have eight eyes (occasionally six) and distinctly separate head/thorax plus abdomen. Detailed identification often hinges on microscopic details of the genitalia and the silk producing spinnerets as well as leaf-like patterns on the abdomen. Mating procedure is for the male to insert his palp, loaded with sperm, into the female's epigyne. Young spiders hatch from eggs and moult a number of times before reaching adulthood. Females are larger than males and the latter have to be very cautious when mating to avoid being eaten. There are no human deaths in Britain attributed to spider bites although local swelling may arise.

The purse web spider creates a tubular web on warm, south facing slopes and poisons its prey through the above ground part before dragging it through the web. *Amaurobius similis* spins a bluish web by combining two types of silk to give a lacy web and the combing of the silk can easily be seen by torchlight. The Wood-Louse spider feeds exclusively on them and has a shiny red carapace and does not make a web. *Segestria senoculata* makes a tubular web in beetle galleries in dead wood with radiating trip lines to alert the occupant when prey is about. *S. florentina* is similar but living in wall crevices on the south coast; it has green metallic jaws. The Daddy Long-legs Spider lives entirely

indoors in dry warm conditions in room corners where it vibrates its web as a defence mechanism. *Scytodes thoracica* spits a line of gum. The large family of crab spiders (looking and moving like crustacean crabs) have prominent eyes, live on foliage and match their surroundings and some can change colour to suit. The Zebra Spider is black and white, lives on vertical walls and jumps to catch its prey – but suitably anchored by a safety line. The large group of wolf spiders have no web but chase their prey at speed over dry floors. They are seen in packs but do not hunt communally. The egg sac is carried and the young spiders live on the adult's back for 2/3 days before dispersing. *Pisaura mirabilis* spins a nursery web tent over grasses with the egg sac inside where the young remain for protection. The rare Raft Spider is present in Owlsmoor bog. The Water Spider is the only one in the world which lives under water by creating a bell shaped silk tent filled by air carried down initially trapped in body hair. The black and yellow Wasp Spider is spreading north from the south coast and soon will be in Berkshire. The gossamer threads seen particularly on dewy mornings in autumn are the lines of silk which young spiders use to 'balloon' and hence disperse often over long distances and up to 2,000 feet. This was the first talk on spiders for the Society and proved both interesting and informative.

1st March (61) - Jill Butler - Ancient Trees, Obese, Old and Rotten

Sparing a thought for our ancient trees was the main theme running throughout this talk. Sadly those planted around the time of William The Conqueror were the least protected because of a gap in legislation, despite heritage and their great aesthetic value. The necessity of grubbing out and burning old trees was questioned by Jill as the decaying process was hugely important. 20% of woodland life relied on decaying wood - rare fungi broke down cellulose, ending up with a black mulch.

An ancient tree may be over a thousand years old and must be at least two metres in girth to qualify. Germany and France have few, but in Great Britain there are approximately a hundred growing in the old hunting forests of Windsor, Sherwood, Hatfield, the New Forest and in old deer parks. Unfortunately, ancient trees are under threat from vandalism, fires, and car parks which cause compaction of the root system.

Hopefully there will be projects to save them in the future. Money was ploughed into the restoration of buildings but not ancient trees. The Woodland Grant Scheme has been set up to map as many of these as possible and members were urged to notify the Woodland Trust of their finds.

15th March (41) - Members' Evening

Three members gave short slide presentations.

Malcolm Storey showed rare orchids photographed during a holiday in Kent. Members were treated to the sight of Lady, Spider, Lizard and Monkey Orchids. Susan and Peter Twitchett took us to Corsica where once again we were shown Lady Orchids among the island's flowers, plus notable butterflies and birds. Chris Raper completed the show with reptiles – plenty of both lizards and snakes.

After coffee a book auction was held - books that had belonged to the late Dr Hora, generously donated by Mrs Hora. *It was later agreed that future auctions would not take up so much time at the expense of socialising.*

4th October (39) - Chris Bucke - Footprints in the Mud

In his Presidential Address, Chris described the scientific expedition that took him to the westernmost part of Java. This area was devastated by tsunamis and ash falls resulting from the eruption of Krakatoa in 1883. Since then the area has been uninhabited and rarely visited. The expedition sought to offer a course to Javan postgraduate students in the methods used to screen microbes for new biological activities, such as antibiotics and enzymes, then to collect samples in Ujong Kulon from which microbes were to be isolated and screened for the ability to produce enzymes that would degrade materials containing organically-bound chlorine.

Ujong Kulon was reached by boat across the Java Sea. Great diversity was found here from mangrove swamps, sandy beaches to deep rain forest.

The swamps were rich in mudskippers, crabs and beautiful shrubs and trees. Ujong Kulon is one of the last homes of the Javan Rhino – an expedition to find it found only footprints, but did see Reticulated Pythons and wild cattle. The beauty of the rain forest was demonstrated by slides showing buttressed trees, strangling figs and the insects that live in illuminated clearings.

25th October (52) - Jennifer George - Lundy, Island of Contrasts.

Jennifer has regularly visited the island to study the aquatic life. The waters around the island provide underwater visibility of up to 15m, and form England's only statutory Marine Nature Reserve.

The island flora is less diverse on the western side with Thrift dominating the western sidelands. The endemic Lundy Cabbage occurs on the sheltered east side. Quarrying of granite occurred in the 1860's and several fern species, including the Royal Fern, grow on quarry walls.

Members were told about the four permanent freshwater pools, all different in the lifeforms they support. The largest lies in a *Sphagnum* bog surrounded by rushes, and has 12 species of water plants.

A marine zoning scheme provides refuge, recreational, general use, and archaeological protection zones. Recently a 'No-take' zone has been instigated. The west coast is dominated by a robust turf of sponges, hydroids and bryozoans, whilst the rocky reefs on the east side support sea fans and delicate branching sponges.

Puffins, Manx Shearwaters, Grey Seals and Basking Shark are among the fascinating creatures to be found on or around this fascinating island.

1st November (50) - Graham Vick - Dragonflies of Europe

Graham's interest in dragonflies began when he joined the Society in 1975. He described a range of habitats where most of the species could be found. There were 40 species in Britain, many occurring locally in ponds and gravel pits. The Club-tailed Dragonfly was more commonly found in the Pangbourne area than anywhere else. Another species found in south-east counties was the Red-eyed Damselfly, which has now expanded its range to other areas.

The life cycle of the Emperor Dragonfly was described, and members were shown the adult emerging from its larval case. If in doubt, identification of dragonfly species was often down to the shape of their appendages. For Small and Large Red Damselflies the leg colour was diagnostic.

France we were told was the keystone country in Europe with 80 out of Europe's 120 species. Best regions were the South-West, the Alps, the Dordogne and rivers Lot and Rhone. Elsewhere Greece, Turkey and Spain were particularly rich in dragonflies. Scandinavia too, Finland for example had hundreds of miles of floating bogs which attracted specialised species.

Graham also explained the various feeding, mating and laying habits. Some species insert eggs into water plants, others simply drop their eggs into water.

The talk ended with slides showing rare species from Cameroon and Madagascar.

15th November (37) - Charles Flower - Creating a Wild Flower Farm to Restore the Countryside.

In the late 1970s Charles recalls seeing hedges being torn up, so he started planting hedgerows and trees on his 175 acre farm near Hungerford. Restoring meadows and planting hedgerows was his aim and he started to help other farmers do the same. In 1990 people were planting trees but no one was talking about growing wildflower seeds and so he decided to grow and sell his own.

Initially he found seeds hard to come by except in nature reserves and churchyards. So Charles began by collecting seed from road verges, and more recently from Salisbury Plain. Perennial plants such as Cowslip, Ox-eye Daisy, Meadow Buttercup, Sorrel, Bird's-foot Trefoil and Lady's Bedstraw were among his target species.

Charles described how the seed bed has to be prepared by clearing the area of thistles, nettles etc. After planting and pressing into the ground with a heavy roller the seed lies dormant, sometimes until the following Spring. The timing of harvesting is critical, and has to be learnt by trial and error. A brush harvester is used, then the seed is laid out into the sun to dry before being packaged.

Charles also works as an advisor in schemes all over the country. He publishes his own brochures in habitat restoration and his farm has nature trails and workshops.

Dec 6th - Christmas Party

This was the usual social highlight of the year. Members were extremely generous with their provision of food and drink, and nobody starved. There were several light-hearted quizzes organised by Meryl Beek, Jan Haseler, Tony Rayner and others. Baby or early photographs of committee members provided some amusement. The first Photographic Competition drew some fine entries, and Jan Haseler's beetle was voted top photo by members present.

Special thanks are also due to the following, without whom meetings would not happen seamlessly. Malcolm Storey (loan of equipment), Veronica Vincent (maintaining attendance book), Michael & Jose Keith-Lucas (provision of refreshments), Meryl Beek (transport of equipment), Susan and Peter Twitchett (setting up & transport of projector), Cath Butcher (minutes), and Jan Haseler (publicity). If we have left anyone out, we apologise and thank them as well.

SLOW-WORMS

Tony & Ro Rayner

The Slow-worm always appears to be cast in a supporting role, and is seldom in the spotlight. Somehow it lacks the charisma enjoyed by other native reptiles. So time to focus on this lowly creature.

Our Slow-worm bible is the *New Naturalist Reptiles and Amphibians* by Beebie and Griffiths, and it is this which will be referred to as 'the book' in this article. The book suggests there is still much to learn about this legless lizard and states that the books contents are largely based on just two studies.



Slowworm

So a rather shallow excuse to offer the results of a third study here. Readers should be warned in advance that we are learning as we go and therefore must apologise for any errors made in our findings and interpretations.

Whilst admittedly amateurish and unscientific, this account is based on over 1,500 sightings at Cholsey over the past 6 years. These sightings come from a once daily round of metal sheets laid around the margins of a three-acre meadow, and to a much lesser extent the adjoining garden. Recording is not done every day, but only when it proves possible within the domestic routine, and when conditions are favourable.

Transects are only carried out in daytime. It is considered to be putting the lizards at too much risk of damage or harmful disturbance in hours of darkness.

Slow-worms are only rarely handled when found in a vulnerable position. No marking of individuals is done, and every care is taken to avoid damage. In fact Slow-worms are far less prone to accidental damage when lifting sheets than are Grass Snakes. As a result of this discovery, Grass Snakes are always made to move away before replacing the sheets and Slow-worms are usually left in place.

Our lizard tends to stay put when found, but can move rapidly. When handled they wriggle rather like a worm and move quickly when released.

In 2000 three males and four females were re-introduced to the site, near to where our grown-up son had seen Slow-worms when playing with school friends. Until the re-introduction no Slow-worm had been sighted at Red Cow during our 14 year occupation. It should be added that metal sheets had been used to monitor a strong Grass Snake population long before the Slow-worms arrived.

In the first four years Slow-worms remained in a restricted area seldom further than seventy yards from the release site. In 2004 and 2005 sightings were made along the entire south-facing edge of the meadow, a length of 250 yards. Although sometimes found on other boundaries of the meadow and garden, the overwhelming percentage of records come from this south-facing boundary backed by a mature hedge line.

It soon became clear that almost every sighting would be of Slow-worms under metal sheets. Over 99% at a rough guess.

Individuals can be found under the same sheet for several days, probably more if injured. This perhaps emphasises the point that Slow-worms do not range far.

It is however possible that this local population has been supplemented by outsiders – but only once was this seriously suspected. On that occasion the location was unusual and the individual looked unfamiliar. A standard looking outsider appearing under a well used sheet would have been taken as a home based individual.

April has proved to be a particularly good month for the Slow-worm watcher, but sightings have been recorded on most dates from 9th March to 17th October.



Slowworms under a metal sheet

In long hot and dry spells, Slow-worms are hardly seen at all. July and August can be very poor months for Slow-worm watching. There was no evidence that individuals reappear under the same sheet after a long break in sightings. However there is a very strong correlation between the sheets where Slow-worms as a whole last appeared in 2004 and where Slow-worms first appeared in 2005. (Eight sheets for late in 2004, and the same eight plus one other for early in 2005.)

One sheet was especially popular for both Grass snakes and Slow-worms. After July 2004 this sheet seemed to be abandoned for no apparent reason. Then in January 2005 we first became aware that a Weasel was probably based close to this sheet and may still use the site. This cause and effect is only guesswork, but it seems possible.

The book says that it is the males that appear first in any year. This seems to be true of the Cholsey Slow-worms as 16 out of the first 18 early 2005 sightings were of males.

Can individuals be identified? Yes, if especially mature or unusually marked or coloured and reappear in the same spot as previous days. Damaged lizards are perhaps the easiest to identify. Colour marking would help, but we have never tried this.

Slow-worms can grow to 400mm, but our young colony only has a few individuals that must be about 320 mm. The females should apparently be about 280 mm before they can breed.

There are interesting colour variations – most are a chocolate brown, others are pewter or even copper. Those judged to be just one or two years old may also be a pale brown, whilst new-borns are either cream, golden or yellow. They also have a smart black stripe down the back. Like Grass Snakes, Slow-worms change in appearance when they slough making it difficult to track an individual. Only once have we found a skin shed in one piece, usually there are fragments of old skin either beneath a sheet or still attached to the lizard.

Are they sociable? The book says not, and it is true they are most usually found singly. However it is often the case that two or three are found together, and occasionally more than this. The larger gatherings are likely to include youngsters up to two years old.

Do they mix with other species? Yes they have been found together with Grass Snakes; Bank and Field Voles, and Common Shrews. Sometimes they are also found with Common Lizards, but the latter normally sit on top of the sheet whilst the Slow-worm is underneath.

It may be surprising to learn that it is the Grass Snake that proves to be the most constant companion. Slow-worms were mostly found in the company of young Grass Snakes. Where adult Grass Snakes were involved, the Slow-worm companion was usually quite large. All of which is not surprising since our lizard is a potential snake meal. There have been occasions when a Slow-worm and a Grass Snake have been curled up on top of each other. When it is the larger Grass Snake on top, the Slow-worm can be completely hidden until the snake moves.



Slowworm

The book states that mating is seldom observed. But we have recorded matings on thirteen occasions between May 7th and 27th. One word of caution however, the book says that males fight prior to the mating period. So it is possible that some of the earlier 'matings' were in fact fights, but not recognised as such. Never having knowingly witnessed a fight, makes it difficult to be sure. Certainly there was no movement involved during observations, and the encounters were quite prolonged suggesting that mating was involved. Both males and females have been seen with scars,

which suggests fighting and mating respectively.

When new-born slow-worms are found, they have not been found under sheets where matings were observed. These young lizards have numbered at least five in a clutch, and they remain in the same spot usually from mid-September to early October when they seem to go underground for the winter. When disturbed on the surface these new-borns are quick to take refuge down an ant run. So often are Slow-worms found among ant colonies, that this association seems unlikely to be accidental. The book confirms the connection.

Slow-worms are supposed to feed primarily on slugs, snails and earthworms – but not greatly on ants. Feeding has never been observed, presumably because this is done when foraging away from their sheet base. There is no doubt that sheets are often used for long periods during a day, and that no prime time of day has been identified when one is most likely to encounter a slow-worm. That is more a question of weather conditions than anything else.

Slow-worms sometimes have tail injuries, but no predation has ever been witnessed. These injuries seem to be noted when Pheasants have been rootling around the prime slow-worm area. Other suspects for this site are Magpies, Kestrels and Foxes.

Hay cutting has been found to be another source of injury. It had not been appreciated that Slow-worms ventured much into the open meadow. But in 2004 at least three mature individuals were mangled by the cutter in the area nearest to the prime lizard area. In 2005 this danger was overcome by first hand raking that area, and then cutting outwards from the centre. Result – one individual rescued undamaged, and no known casualties.

The Slow-worm is supposed to be able to swim, but this has never been observed. It would seem that they are not keen to enter water. Certainly they can climb a little, as proven when one mature specimen was discovered on top of a high and steep sided mound of dead branches and discarded weeds. In daytime at least, the Slow-worm seems to enjoy nothing more than lying snug under a warm metal sheet, safe from most predators.



Slowworm - shed skin

Having completed this article, we agree that there is still much to be learned about this secretive species. After all a Slow-worm that has been proved capable of living for at least 54 years, must have a few tricks up its sleeve.

THERE IS MORE TO BIODIVERSITY THAN MEETS THE EYE

PRESIDENTIAL ADDRESS – by Chris Bucke

Those interested and concerned with natural history are familiar with the need to conserve habitats that have a great diversity of species so we have nature reserves to preserve conditions suitable for birds, animals and plants, often species that are rare. Some, not usually enthusiastic about conservation, say that a great deal of effort is spent in preserving species that are unsuccessful and contribute little to the environment. This attitude is short-sighted because important “contributions” are made by the microorganisms that are associated with other, larger, organisms. Microorganisms do not normally meet the eye but are quantitatively very significant. For instance in one gram of leaf litter collected fresh in late October there may be one kilometre of fungal hyphae, all actively involved in recycling the leaf material, which in dead leaves is mainly cellulose and other cell-wall components such as pectin and, importantly, lignin. Similarly, in rotting wood there can be similarly unexpectedly large quantities of fungal hyphae. When active decomposition is occurring, the fungi excrete enzymes into the leaf material or wood to break them down into simple sugars that they can use as food. A problem arises in these circumstances: the fungi have no means of taking in all the nutrients that their enzymes release and other microbes, both fungi and bacteria, that share the environment compete with the fungi that have done all the work for food. As a consequence there is “war” in the environment. A very similar environment is the rhizosphere, the area immediately adjacent to the roots of plants. Plants “leak” sugars into this area and benefit from nutrients made available to them by bacteria and fungi that are maintained by the sugars.

From all this it is apparent that where sugars are available in abundance, or can be made available, there will be microbes that consume the sugars and must compete with other microbial species. So foodstuffs, such as fruits, vegetables and cooked starch materials such as bread are important environments for microbes (we cook starchy materials to soften the starch grains, allowing access of the water needed for enzymes to “digest” them to produce sugars).

Making use of Microbes

Humans have used microbes, without knowing what they were, for thousands of years to produce alcoholic beverages, leavened bread, pickles (such as *sauerkraut*), soy sauce and a huge number of other food materials. The importance to us is that alcohol and the acids produced in pickled foods preserve the plant material and allow storage for extended periods. In such materials the yeast or bacteria producing lactic acid or acetic acid have won the “war” with competing microbes, sometimes aided by human intervention such as adding concentrations of salt that prevent the growth of unwanted species.

Now that we have techniques to isolate the individual species of bacteria, yeasts and fungi that produce the foodstuffs and break down leaf litter and wood we can use them in controlled ways rather than just letting them “get on with it”. This is not always totally acceptable: the yeasts used in beer making are recycled and inevitably become contaminated with other strains of yeast and harmless bacteria that influence the flavour of the beer. It is not infrequent for consumers to state that something has gone wrong with the beer when a cleaned yeast culture has been used to produce it. One of the reasons why inexpensive wines are so much more acceptable than they were 20 or 30 years ago is that better strains of yeast are used to produce them. However the producers of the very highest quality wines would not dream of using anything other than the yeasts that come naturally on the surface of the grapes.

Making use of Starch

The carbohydrate in cereals is starch which is there as a food reserve to be mobilised when the grain germinates. The cereal grains have enzymes built in to do this when the conditions are right and there are usually some sugars in the grains released by small quantities of the enzymes. These are the sugars that are converted to carbon dioxide which leavens the bread (and alcohol) by the yeast added to flour in bread making. In beer and whisky production the barley is allowed to germinate and break down most of the starch to the fermentable sugar maltose (which consists of two glucose molecules joined together). For beer production the grains are dried to stop the germination process and to allow the resulting malt to be transported to breweries. In whisky production sugars are extracted from the malt without drying. In each case the enzyme that breaks down the barley starch remains active and this allows brewers and distillers to use other sources of starch, such as maize and rice, which are cheaper. Rice is used extensively in the production of the inexplicably popular American brands of beer but in Bavaria and the Isle of Man it is illegal to use anything but malted barley.

It is possible to extract the enzyme from malt and use it to break down starch to produce sweet syrups akin to barley sugar but the enzyme is expensive and not easy to use for this purpose. However, there is a vast industry that produces sweet syrups from maize, wheat, cassava and rice using enzymes isolated from bacteria and fungi. The Japanese and Chinese produce a multiplicity of foods and beverages from rice and beans. Over 100 years ago techniques were developed for extracting an enzyme from *Aspergillus oryzae*, the mould that starts the process for making rice wine. This proved to be much easier to use than the enzyme extracted from malt. Over the years other enzymes have been developed, usually from the type of fungi that occur on mouldy bread or fruits, that allow starch to be broken down to glucose (dextrose), the basic building block of starch, and other materials such as maltodextrins. About 20 million tonnes of these materials are produced worldwide per year.

A fungal product with a local connection is Quorn®. This was originally developed by the flour millers Rank Hovis & McDougall in High Wycombe to use starch remaining after the production of starch-reduced flours. Starch is used to grow a species of *Fusarium* in huge reactors. The fungal hyphae are harvested in such a way that the hyphal fibres line up together giving a structure similar to meat when stuck together with egg white. RHM's microbiologists scoured the world for suitable fungi: the strain now used was found in a compost heap only a few miles from the research centre!

Sweeteners

The human race and many other mammals have an insatiable desire for sweet materials. For the rich in temperate countries this desire was satisfied by honey but with the opening of the spice route from the far east sugar began to be available and then sugar cane. The social consequences of the introduction of the very labour-intensive cultivation of sugar cane to the Caribbean islands and islands such as Fiji, Mauritius and Reunion are vast and sugar remains a highly political commodity. Production of sugar from sugar beet was developed in France during the Napoleonic wars when trade with the Caribbean was blockaded by British fleets. Potential production of sugar greatly exceeds demand. However the USA is not a major producer of sugar but can produce far more maize starch than is consumed. As has been described above, glucose can be produced from starch very inexpensively. However glucose has only 70% of the sweetness of sugar and is less soluble in water so is not as attractive a material to the food industry as sugar. Sugar is technically “sucrose” and consists of two very similar sugars glucose and fructose joined together. In acid the bond connecting the two sugars is broken so when we eat sucrose we actually consume the two sugars separately, hydrolysed by an

enzyme and the acid in the stomach. Golden syrup is composed of hydrolysed sucrose but is as sweet as the original sucrose because the fructose has 130% of the sweetness of sucrose so a 50:50 mixture of glucose and fructose has the same sweetness as sucrose. Because of this the syrup manufacturers in the USA realised that if they could convert half of the glucose derived from starch to fructose they would have a material that would be as sweet as sucrose but considerably cheaper. To do this chemically proved impossible so enzymes were sought that would do the job. Eventually these were found in various species of bacteria, of which the soil bacteria *Streptomyces* are most effective. The enzyme is called glucose isomerase, because it is used to isomerise glucose to fructose, but the *Streptomyces* probably produce the enzyme in order to use the sugar xylose which they obtain from hemicellulose in wood. Producing this enzyme gives the *Streptomyces* an advantage over competing species in the soil that cannot use hemicellulose. So we are back to “wars” between species in a nutrient rich environment.

If there is plenty of a food source such as sugar available a tactic that can be taken by a cunning microbe is to convert it to something that you can use but your competitors cannot. For instance a few plant pathogenic bacteria have an enzyme that rearranges the sucrose molecule to produce a new sugar called palatinose. This sugar is perfectly edible but has only 30% of the sweetness of sucrose. When Tate & Lyle had a research centre at Reading University a process was developed to produce palatinose in large quantities, inexpensively. This was sold to a German company that had made palatinose using enzymes from a different species of bacteria and less sophisticated technology.

It seems very probable that starch and sugar will assume importance as raw material for the production of alcohol as motor fuel. Sugar has been used for this purpose in Brazil for many years: technology exists for the production of alcohol from starch. Political and commercial drive is now needed urgently to construct appropriately-sized industrial plants to produce the material. There is scope for finding new microbes to further improve the production of “biofuels”.

Antibiotics

It is well known that Sir Alexander Fleming discovered penicillin almost by accident when a bacterial culture became contaminated with the mould *Penicillium notatum*. This is not the mould that is now used to produce penicillins: many strains of *Penicillium* were studied from many different environments and the strain from which penicillins are now made originated from a mouldy canteloup melon bought in a market in Peoria, Illinois. That bacteria can, sadly, develop resistance to penicillins is well known and consequently there is a constant need to produce improved penicillins. Penicillins consist of two parts, only one of which prevents the growth of bacteria and changing the other part can produce new penicillins. Splitting penicillin into the two parts is done using an enzyme isolated from a penicillin-resistant bacterium. By changing the conditions the same enzyme can be used to build up new materials.

It is not entirely clear why microbes produce antibiotics but it may well be another tactic in the “war” between species. To produce something that kills off your competitors is a good tactic. Consequently, researchers are still isolating new microbes from new environments in the hope of finding new antibiotics. In the author’s laboratory we found antibiotics from the wood-rotting fungi *Ganoderma applanatum* and *Ganoderma adspersum* that could stop the growth of many different species of bacterium, including MRSA, but they were nowhere near potent enough to consider for further development. Only a very small proportion of the known strains of bacteria and fungus have been examined for antibiotic activity, let alone the very many species that have not been isolated and named. Habitat destruction might well eliminate species capable of producing valuable new antibiotics and other drugs. There is evidence that some fungi produce antibiotics only when they can detect the presence of competing species. This



Ganoderma

detection occurs before there is physical contact between the species so some chemical signal is available, of unknown nature.

Environmental Clean-up

Environmental pollution and its removal are hot topics and present severe intellectual challenges. Some materials, such as polyaromatic hydrocarbons and chlorinated hydrocarbons are very difficult to eliminate from the environment. They can be extracted from soils and water using organic solvents but that simply relocates the problem. Their chemical structure is such that they cannot be broken down by the types of enzyme that allow utilisation of starch or cellulose. The biological material most similar to these pollutants is lignin, which acts as the “glue” holding wood together and consists of polymers of phenolic materials. White rot fungi can break down lignin, so have enzymes to do this that require oxygen. In the author’s laboratory we are using an enzyme from *Ganoderma lucidum* to decolourise textile dyes: several other fungi produce similar enzymes but not as effectively. Cost effectiveness is a problem in this area because there is no product that can be sold.



Ganoderma

These brackets had continued to grow after the tree fell down

A very successful biological approach to environmental clean-up is the removal of cyanide, which is a by-product of various industrial processes but must not escape into the environment. Cyanide is a simple material composed of just carbon and nitrogen so an organism that is not killed by it can use it as a good source of nitrogen. The challenge to those seeking a biological means of removing cyanide was to find organisms that encountered cyanide normally in their environment. Some species of plant react to physical damage, for instance by insects, by producing cyanide that kills the insect. Investigation of fungal pathogens of these plants revealed that they had enzymes capable of converting cyanide into harmless products. These are now used in industrial clean-up.

Future of Enzyme Technology

Modern biotechnology allows enzyme-based processes to be improved constantly. By genetic manipulation it is possible to produce enzymes that are resistant to damage by heat (up to a point) and to change enzymes so that they can work on materials that are resistant to the original enzymes. Organisms from unusual environments, like thermal vents, volcanic springs, even areas of intense radiation have enzymes with unusual properties that can be “cloned” from the original organisms into familiar fungi and bacteria. Experience shows that if there is sufficient commercial push it is possible to find enzymes that will catalyse any process that is thermodynamically possible. To find those enzymes it will be necessary to explore new organisms. There is a tendency to go to wild and exotic environments to find these but this may not be necessary: it is rather improbable that any of our local reserves have been explored for this purpose. There may be reasons to do so in the future.

THE HERB PARIS PROJECT 2006

Meryl Beek

Have you ever wondered why Herb Paris (*Paris quadrifolia*) appears on the front cover of *The Reading Naturalist*? Correspondence with Dr Leonard Williams, who was the first editor from 1949 to 1953 has the answer. There were several special plants that the Society’s “Discussion Group” in the 1940’s and 50’s kept an eye on every year. These were the Fritillary meadow at Sandford Mill, the Pasqueflower colony on Moulford Down and Herb Paris at Maidensgrove Scrub. It was felt that one of these should be chosen as the emblem, and member Paul Betts, a friend of Leonard Williams, thought Herb Paris

would provide the best design. As he was a professional commercial artist, his opinion was accepted; and it was on the cover of Issue No. 3 (1951) that the now familiar and attractive Herb Paris motif, prepared by Paul Betts, made its first appearance.

On the beautiful banner/table cloth, produced with the help of Ivy Brickstock for the 125th year, the Herb Paris motif again takes pride of place. For a society to have lasted for 125 years is something to be proud of and worth celebrating, natural history-wise, (besides eating cake and toasting the Society in wine!)



Herb Paris

At a recent committee meeting it was suggested that it might be a good idea to look back at some of the old natural history records and update them. As a good beginning, and with the help of the Botany Recorder, a list of places where Herb Paris has grown in the past has been collated. The limits are the accepted 20 mile radius from Reading. The records for Herb Paris go back as far as the Berks Flora of 1897. RDNHS records are included, together with Atlas 2000 and the newer Berks and Oxon floras. Herb Paris is a comparatively rare plant, but it can be found flowering from late April to early June in dampish woods on alkaline soil. It is often, but not invariably, under Beech or Oak trees and the leaves can be detected in the undergrowth from March, mixed up with Dog's Mercury.

Now the Society members must go out and search for it. This must be done quickly if the records are to be for the 125th year, although the project could continue into 2007 and later, it would be nice to publish something in next year's *Naturalist* with results of the Society's labours.

Please consult Meryl Beek if you are interested in joining the group. My address and phone number can be found on the programme card, and lists of some of the old sites are available from me.

A HERB BY ANY OTHER NAME...

Editor

There are four wildflowers in Britain called "Herb something": Herb Bennet, Herb Christopher, Herb Paris and Herb Robert. The adjective following the noun sounds vaguely foreign, conjuring up images of medieval herbals written in Latin.

Richard Mabey's *Flora Britannica* has something to say about most plant names and these are no exceptions:

Herb Bennet (perhaps better known nowadays as Wood Avens) is said to be a corruption of the medieval Latin *herba benedicta* – the blessed herb – but if so why is "Bennet" always capitalised?

Herb Christopher or Baneberry, is a rather boring green-flowered rarity of northern England limestone woodlands. Geoffrey Grigson suggests it bears its berries in a manner reminiscent of St. Christopher carrying the infant Christ over the river.

Herb Paris comes from the Latin *par* meaning "equal" and refers to the regular symmetry of the plant. In medieval times, medicine was based on the Doctrine of



Herb Paris - flower



Herb Christopher

Goodfellow, the medieval house spirit, on the basis of its mousey smell, but this sounds fanciful.

Signatures. Quite reasonably it was believed that a beneficent God had created a range of wild herbs with curative properties for all the world's ills. Each was coded with a "sign" or "signature" indicative of the disorder for which it was the remedy. The symmetry of Herb Paris signified its effects against "disorder" as caused by witches and epileptics! (Thames Valley Police's logo is "Reducing crime, fear and disorder" which shows how little has changed!)

Mabey says Herb Robert was probably named for Robin

THE FLORA OF BERKSHIRE by Michael J Crawley 2005

Janet Welsh

At first glance the Flora seems daunting but the more you delve the more you appreciate what a compendium of data it contains. Mick Crawley writes with fluency and enthusiasm for his subjects – and he strays from botany, ecology and statistics into building materials and local history.

The flora covers the botanical vice county of Berkshire which includes the area lost in the 1972 boundary changes, principally to Oxfordshire (The Vale of the White Horse) and parts in the south to Hampshire. As such it coincides with Druce's and Bowen's Floras to which comparison is made under the chapter on trends.

I was unhappy with the absence of dot maps to begin with but overall I think it has been justified. He explains that for most species an increase in recording effort will make any dot map obsolete within a short time, and he is right; and with some effort one can build up a picture of distribution. I would have liked a geology map though.

As well as flowering plants and ferns he covers stoneworts, lichens, fungi and bryophytes. The physical background is covered and there is a good section on plant communities (Buddleja scrub in the urban environment!) and a most useful chapter which will appeal to members, the tour of the county with suggested walks and the plants that can be found.

Individual species accounts, the nub of a flora, start a quarter of the way through. Locations are listed in four sections, these are Silwood Park, Ascot, East and West Berkshire. The latter division occurs at the Eastings 70 line, through Reading. Much greater recording effort has been given to the first two divisions. It is tempting to suggest these might better have been published separately as of primarily local interest considering they make up a tiny part of the county.

Grid references and dates are given of some of the rarer species, updating is encouraged and there are useful tips on identification, notes on ecology and management. We are told of the parlous state of the county flora and the fact that outside the nature reserves there are few of the county rare plants, but, he says, we have not lost any native species in the last 20 years. (You can't prove a negative...)

RECORDER'S REPORT FOR BOTANY 2005

Janet Welsh

Congratulations to Mick Crawley on the publication of the new Flora of Berkshire – see the review on previous page. However, at three inches thick and weighing 6 pounds, it won't be the first item for field botanists to put in a jacket pocket.

Congratulations too, to Chris Bucke, who must have been amongst the first to make the flora out of date by finding Hard Fern at Ashley Hill, a new 10km square record. Another new 10km record, in Oxfordshire, was easier to find, Knapweed Broomrape in my garden. I hadn't seen this plant for over 20 years. Other interesting plants recorded in the year were Round-Leaved Crane's-bill in Lower Earley by Brian Kemp and Meadow Saxifrage in Frilsham churchyard by Meryl Beek.

Most of the surrounding counties have a botanical society and last year saw the formation of one for Berkshire: the Berkshire Flora Group. The Group holds monthly meetings during the summer, very much like the RDNHS, but with more emphasis on recording plants and learning identification. For more details, please contact me or Sarah Priest.

Thanks to all who made lists in the field and contributed records.

Pteropsida (Ferns)

Dryopteris carthusiana Narrow Buckler-fern
5/06/05 Woodland edge at Ashford Hill NNR
SU565619. (MKL)

Blechnum spicant Hard Fern
2/04/05 Moist woodland at Ashley Hill. SU827813
(CB)
This seems to be a new hectad record.

Cyrtomium falcatum House Holly-fern
15/02/05 In brickwork by the Holy Brook outside
Reading library, previously recorded here in
1989. SU718735. (JDW)
An uncommon naturalised fern

Magnoliidae

30 Ranunculaceae

Helleborus viridis Green Hellebore
16/03/05 Considerable spread in Dean Wood
Woodcote SU636826 (MB)

48 Caryophyllaceae

Stellaria palustris Marsh Stitchwort
5/06/05 Marshy ground in Ashford Hill reserve.
SU564619. (MKL)

59 Violaceae

Viola canina ssp. canina (Heath Dog-violet)
19/04/05 In flower near enclosure, Greenham
Common. SU485650 (RF, SNP, CAS, MWS &
Berks Flora Group)

Viola lactea Smith (Pale Dog-violet)
22/05/05 North of Arthur's Seat, Inkpen Common
BBOWT Reserve, SU38216421 (MWS)



Heath Dog Violet
Viola canina



Pale Dog Violet
Viola lactea

63 Salicaceae

Populus x jackii Balm-of-Gilead
20/04/05 Planted by playing field Binfield Heath
SU746785 (MB)

69 Monotropaceae

Monotropa hypopitys Yellow Bird's-nest
10/07/05, In flower under large beech, near footpath through woodland in Warburg BBOWT Reserve, SU716878 (CAS, MWS & Wilts Bot Soc.)

71 Primulaceae

Hottonia palustris Water-violet
5/06/05 Boggy pools on woodland edge at Ashford Hill reserve SU565619. (MKL)

76 Saxifragaceae

Saxifraga granulata Meadow saxifrage
18/05/05 Churchyard at Frilsham SU538732 (MB)

Chrysosplenium alternifolium Alternate-leaved Golden-saxifrage
25/03/05. A single plant in flower, beside stream, Aldernbridge Gully Greenham Common, SU490640, (SNP, CAS, MWS & Berks Flora Group)
27/03/05. A good patch by a fallen log in Baynes Wood BBOWT Reserve, SU511653. A few further scattered plants by stream in woodland, (SNP, CAS, MWS & Berks Flora Group)



Alternate-leaved Golden-saxifrage
Chrysosplenium alternifolium

77 Rosaceae

Alchemilla filicaulis ssp. vestita a lady's-mantle
5/06/05. In flower, Hungerford Marsh. SU327686 (RF, SNP, CAS, MWS and Berks Flora Group.)

97 Polygalaceae

Polygala calcarea Chalk Milkwort
30/04/05 Huge clumps just in flower on W-E earthwork at Swyncombe Down. SU671915 (JW)

106 Geraniaceae

Geranium rotundifolium Round-leaved Crane's-bill
June 05 Several plants beside Chalfont Close on the approach roads to the Asda store, Lower Earley. 'Local and uncommon' SU743702 (BK)

Geranium columbinum Long-stalked Crane's-bill
13/07/05 Field edge near cemetery entrance, Goring. Most of our records are from the chalk. 'Rather local and decreasing' SU610806 (MB)

120 Boraginaceae

Symphytum orientale White Comfrey
20/04/05 Several plants at side of road, Binfield Heath. Flowering earlier than common comfrey. We have a number of records within Reading. 'Introduced, often near habitations.' SU747486. (MB)

122 Lamiaceae

Nepeta cataria Catmint
13/08/05 Boze Down near Whitchuch SU640778 (ST)

129 Orobanchaceae

Orobanche elatior Knapweed broomrape
3/07/05 Two splendid flowering spikes on Greater Knapweed in our 'wild garden' Sonning Common. Scarce in Oxon. SU706801 (JW)

Orobanche minor Common Broomrape
28/06/05 Chalkpit at Dunsden Green. SU739765 (JW)

Misopates orontium Weasel's-snout
27/08/05 'Ten plants in my very neglected vegetable garden in Tilehurst.' A declining plant. SU 666742 (JH)

133 Campanulaceae

Campanula glomerata Clustered Bellflower
13/08/05 Boze Down near Whitchuch SU640778 (ST)

134 Rubiaceae

Asperula cynanchica Squinancywort
13/08/05 Boze Down near Whitchuch Very local in Oxon. SU645778 (MB)

138 Dipsacaceae

Succisa pratensis Devil's-bit Scabious
27/08/05 White flowered form along Ridgeway on Swyncombe Down, several clumps have been there for several years. SU680913 (MB)

Scabiosa columbaria Small Scabious
13/08/05 Boze Down near Whitchurch SU640778 (MB)



Small Scabious - fruiting head
Scabiosa columbaria

Liliidae

156 Cyperaceae

Scirpus sylvaticus Wood Club-rush
5/06/05 Edge of wood at Ashford Hill NNR SU562619. (MKL)

Carex pseudocyperus Cyperus Sedge
26/06/05 Pond in High Wood, Shiplake. SU750790 (JW)

NOTE All names are after Stace (1997)

CONTRIBUTORS

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

(CAS) Christine Storey; (BK) Brian Kemp; (CB) Chris Bucke; (JDW) Jerry Welsh; (JH) Jan Haseler; (JW) Janet Welsh; (MB) Meryl Beek; (MKL) Michael Keith-Lucas; (MWS) Malcolm Storey; (RF) Roger Frankum; (SNP) Sarah Priest; (SR) Sally Rankin; (ST) Susan Twitchett; (TR) Tony Rayner

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Bowen, H.J.M. (1968)
Clement, E.J. and Foster, M.C. (1994)
Crawley, M.J. (2005)
Killick, J., Perry, R., Woodell, S.(1998)
Preston CD et al. (2003)
Stace, C (1997) 2nd Edition
Stewart A. et al. (1994)

Carex vesicaria Bladder-sedge
5/06/05 Marshy ground at Ashford Hill NNR SU564619. (MKL)

Carex pallescens Pale sedge
5/06/05 Marshy ground at Ashford Hill NNR SU564619. (MKL)

Blasmus compressus Flat-sedge
5/06/05 In flower in fen on Hungerford Marsh, SU327686. (RF, SNP, CAS, MWS & Berks Flora Group)

157 Poaceae

Nardus stricta Mat-grass
5/06/05 Dry ground at Ashford Hill NNR SU565619. (MKL)

Catabrosa aquatica Whorl-grass
5/06/05 On mud beside river Dun, Hungerford Marsh, SU330686 (RF, SNP, CAS, MWS & Berks Flora Group)

162 Liliaceae

Paris quadrifolia Herb Paris
1/05/05, In flower, 2/3 of way down slope, near eastern end of Rivar Copse. SU353620 (SNP, CAS, MWS & Berks Flora Group)

Leucojum aestivum Summer Snowflake
15/05/05 Frequent along the Thames bank and on the islands on Cholsey Marsh Reserve. SU595849 (TR)

Narcissus pseudonarcissus Daffodil
16/03/05 Plenty of plants, one about to flower in Fox Covert, Woodcote. SU638814 (MB)
12/03/05 Greys Green area (SR)

Recent introductions are marked *

RECORDER'S REPORT FOR MYCOLOGY 2005

Malcolm Storey

Rain was rather patchy last autumn, and, while some areas were good, here in the Newbury area we had a slow start with no significant rain until late October. However, quite a good season followed.

Thames Valley Fungus Group visited Watlington Hill in Oxon on 16th October. This area must have had more rain as it was very productive. It was particularly nice to see a good range of species associated with Common Rockrose (*Helianthemum nummularium*). It has only recently been recognised that some fungi are mycorrhizal with this plant and one of the hot topics in field mycology is to ascertain the species involved.

Thanks to all who submitted records.

ASCOMYCOTA

Clavicipitales

Cordyceps ophioglossoides (an ascomycete)
03/09/05, Bucklebury Common, SU559694, 10 fruitbodies, spread over 50cm, on False Truffle (*Elaphomyces muricatus?*) under birch, beside track running diagonally up slope (MWS)



Cordyceps ophioglossoides on *Elaphomyces*

Helotiales

Dumontinia tuberosa (= *Sclerotinia tuberosa*) (a cup fungus)
02/04/05, Holly Court Farm, SP391155, Group of stalked apothecia arising from a buried sclerotium near Wood Anemones and Lesser Celandine, South bank of River Evenlode, (MWS)

Pezizales

Disciotis venosa (a stalkless morel)
25/03/05, Greenham Common, SU499650, single fruitbody, in grass, just east of Control Tower car park, smelling of chlorine (swimming baths), quite strong but short-lived, immediately after damage. (MWS)

Sphaeriales

Lasiosphaeria ovina (an ascomycete)
Kingwood Common, Oxfordshire, 02/10/05. (TVFG)

Poronia punctata Nail Fungus
20/12/05, Snelsmore Common, SU460711, on pony dung, clearing in gorse. Originally found by the ranger, Keith Tomey. (MWS)



Nail Fungus
Poronia punctata

BASIDIOMYCOTA

Agaricales

Bolbitiaceae

Conocybe tenera (a toadstool)
Satwell, Oxfordshire, 02/10/05. (RAF)

Coprinaceae

Lacrymaria pyrotricha Fiery Weeping Widow
16/10/05, Watlington Hill, SU7093, Woodland near entrance. (MWS)

Psathyrella clivensis (a toadstool)
Satwell, Oxfordshire, 02/10/05. (RAF)

Entolomataceae

Entoloma bloxamii (a toadstool)
16/10/05, Watlington Hill, SU7093, Grassland areas. (TVFG)

Entoloma formosum (a toadstool)
31/10/05, Greenham Common, SU501645, 22 fruitbodies, scattered over about 5m, among Dwarf Gorse and Heather, SE lozenge, W end, and SU508643, SE lozenge, S edge, heath at bottom of dip. (MWS)

Entoloma jubatum (a toadstool)
25/10/05, Greenham Common, SU497646, 3 fruitbodies, (one a tiny button) amongst heather, SW lozenge, heath near S edge, near end of fence. (MWS)

Hygrophoraceae

Hygrocybe colemanniana (a waxcap)
08/11/05, Greenham Common, SU487649, 5 fruitbodies in heathy grassland, NW lozenge, SW corner, (MWS)

Hygrocybe phaeococcinea (a waxcap)
31/10/05, Greenham Common, SU508643, 2 fruitbodies in short-mown heather, SE lozenge, S edge, heath at bottom of dip, Cap dry, bright red, with thin black-tinged coating. (MWS)

Lepiotaceae

Lepiota erminea (a parasol)
17/10/05, Greenham Common, SU500651, Seven fruitbodies, mostly old, growing in short grass, lawn near sunken pond, southern end. (MWS)

This would be *L. alba* (Bres.) Sacc., if this were regarded as distinct from *L. erminea*, but they are combined in the new 05 British & Irish Checklist.

Lepiota oreadiformis (a parasol)
25/10/05, Greenham Common, SU494647, 10 FB's, SW lozenge, N edge, towards E end. (MWS)
08/11/05, Greenham Common, SU497648, small group in sedges and grass near hawthorn, NW Lozenge, S edge, near centre. (MWS)



Strobilomyces strobilaceus (underside)

Tricholomataceae

Calocybe constricta (a toadstool)
21/10/05, Greenham Common, SU511646, in clumps around patches of orange-brown dead moss, NE lozenge, N edge, towards eastern end. Smell: strongly mealy, very strongly so on cutting. Taste: sourly mealy, unpleasant. (MWS)
31/10/05, Greenham Common, SU507645 and SU513643, on old Rabbit dung patches, SE Lozenge. (MWS)

Lepista irina (a toadstool)
16/10/05, Watlington Hill, SU706936, in a ring in grass, Grassland areas. (TVFG)

Lepista panaeola (a toadstool)
13/10/05, Watlington Hill, SU706936, group of fruitbodies in grassland, first clearing - western end. (MWS)
16/10/05, Watlington Hill, GR: SU7093, Grassland areas, (TVFG)

Melanoleuca excissa var. *iris* (a toadstool)
18/01/05, Oxford Brookes: Headington Hill Campus, SP533066, Growing in short mown grass on lawn under Pine. (Rd'A)

Tricholoma bufonium (a toadstool)
16/10/05, Watlington Hill, SU7093, growing amongst Rockrose, Grassland areas, (TVFG/RAF)

Boletales

Boletaceae

Boletus porosporus (a bolete)
Wokefield, Burghfield Common, Berkshire, 04/09/05. (TVFG)

Pseudoboletus parasiticus (a bolete)
11/09/05, Bucklebury Common, SU557694, on Common Earthball, under birch, Sweet Chestnut, Hazel, Holly. (MWS)

Gyroporus castaneus (a bolete)
The Coombes, Arborfield, Berkshire, 17/09/05. (TVFG)

Strobilomycetaceae

Strobilomyces strobilaceus (a bolete)
with Beech, Satwell, Oxfordshire, 02/10/05. (TVFG)

Rhizopogonaceae

Rhizopogon luteolus Yellow Beard Truffle
18/09/05, Wellington Country Park, SU727627,
on surface of ground along fence line under
birch, Pine, (Oak nearby), car park - between
parking areas. (MWS)

Cortinariales

Cortinariaceae

Cortinarius anomalus (a toadstool)
13/10/05, Watlington Hill, SU703934, isolated
fruitbodies growing through carpet of Common
Rockrose. Clearing near top, south-facing, east
of Yew wood, (MWS)
16/10/05, Watlington Hill, SU7093, growing
amongst Rockrose, Grassland areas, (TVFG)

Cortinarius infractus (a toadstool)
13/10/05, Watlington Hill, SU703934, growing
through carpet of Common Rockrose. Clearing
near top, south-facing, east of Yew wood. (MWS)

Hymenochaetales

Hymenochaetaceae

Phylloporia ribis (a bracket fungus)
01/05/05, Little Rivar Copse, SU356623,
brackets at bases of Spindle trunks, by footpath,
below stile, (MWS)

Russulales

Russulaceae

Lactarius controversus (a milk-cap)
20/09/05, Wellington Country Park, SU734628,
group of specimens
in dry weather, along
sides of causeway
beside lake, under
Grey Sallow, Oak
nearby. (MWS)

Lactarius evosmus
(a milk-cap)
16/10/05, Watlington
Hill, SU7093,
growing amongst
Common Rockrose,
Grassland areas,
(TVFG)



CONTRIBUTORS

Lactarius evosmus - growing amidst Common Rockrose

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

(RAF) Richard Fortey; (Rd'A) Rod d'Ayala; (MWS) Malcolm Storey, (TVFG) Thames Valley Fungus Group.

“Polypores” and “Resupinates”

Daedalea quercina Oak Mazegill
Pamber Forest, Hampshire, 23/10/05. (TVFG)

Hapalopilus nidulans (a bracket fungus)
fallen hazel branch, Kingwood Common,
Oxfordshire, 02/10/05. (TVFG)

Scytinostroma portentosum (a resupinate_)
On fallen ash trunk, Bozewood Vineyard,
Oxfordshire, 06/11/05 (TVFG)
Distinctive smell of naphthalene. Possibly the
first Oxfordshire record of this rare species.
Recorded from Sulham Woods, Berkshire in
2004.

Heterobasidiomycetes

Pseudohydnum gelatinosum (a jelly fungus)
conifer log, Nuney Green, Oxfordshire, 06/11/05.
(TVFG)

USTILAGINOMYCETES

Thecaphora trailii (a smut fungus)
09/07/05, Otmoor Rifle Range, SP572128, spore
mass in aborted capitula of Meadow Thistle, in
field towards road. (MWS)
A rare or overlooked species with very few
records.

CHYTRIDIOMYCOTA

Chytridiales

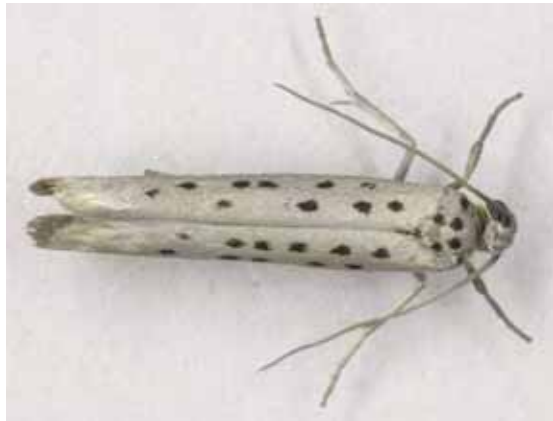
Synchytrium succisae (a chytridiomycete
fungus)
09/07/05, Otmoor Rifle Range, SP573130,
infection on
leaves of
Devil's Bit
Scabious ,
Field :
towards N
end. (MWS)
A n o t h e r
rare or
overlooked
species with
very few
records.

RECORDER'S REPORT FOR LEPIDOPTERA 2005

John Notton

The order of families and nomenclature use is that given in the standard Royal Entomological Society checklists, supplemented by Bradley and Fletcher for the Lepidoptera. Records presented have been selected and edited. Full details of all records are available for examination on application to the Recorder. It is encouraged that voucher specimens be retained.

This report was made both easier and more difficult to compile by the large number of records submitted. No apology is made for increasing the size of the report to reflect this. Even so some records normally deserving of mention have had to be omitted. Fewer than usual butterfly records were received, possibly a reflection of low numbers generally. In part, the increase in moth records is due to the expansion of the activities of the Berkshire Moth Group (BMG). A number of enthusiastic RDNHS members are also BMG members. It is also interesting to note the success achieved with the use of pheromone lures for the Clearwing moths, which were among the target species for the year.



Yponomeuta sedella

173 *Apoda limacodes*, Festoon
Reported on 26/06/05 and 14/07/05 at Cranbourne Chase. (DJW)
Mortimer West End on 23/6 & 24/06/05. (GD)
A very local species

297 *Eucalybites auroguttella*
At MV trap in the Harris Garden on 29/07/05. (NMH)
Sometimes plentiful where *Hypericum* species grow.

366a *Cameraria ohridella*, Horse chestnut leaf miner
Seen in the Harris Garden on 21/09/05 and in Shinfield Park (ECMWF) on 22/09/05. (JH)
This micro-moth can have up to four generations per year, and on the continent is a serious defoliating pest of Horse chestnut and related trees.

373 *Synanthedon tipuliformis*, Currant clearwing
One at pheromone lure at Waltham Place on 1/07/05 (DJW) and three at lure in Emmer Green between 18-27/06/05. (JHFN)

375 *Synanthedon spheciformis*, White-barred Clearwing
One at pheromone lure at Silchester Common on 3/06/05. (GD)

381 *Synanthedon culiciformis*, Large Red-belted Clearwing
One at pheromone lure at Silchester Common on 15/05/05. (GD)

382 *Bembecia ichneumoniformis*, Six-belted Clearwing
Five seen at lure in Emmer Green between 12/7 and 10/08/05. Two females also seen, including one ovipositing on Bird's-foot trefoil seed pods. (JHFN)

431 *Yponomeuta sedella*
At MV trap in the Harris Garden, 29/07/05. (NMH)
According to Brian Baker, there are few Berkshire records of this species.

455 *Ypsolopha scabrella*
At MV trap in Emmer Green between 25/07/05-4/08/05. (JHFN)
Widely distributed but not common.

1118 *Ancylis uncella*
Decoy Heath 1/05/05, 5th Berks record! (JH)
At MV trap on Padworth Common 27/05/05 during BMG moth trapping evening (JHFN)

1119 *Ancylis geminana*
At MV trap in Earley 08/07/05 (NMH)

1175 *Epiblema uddmanniana*, Bramble Shoot Moth
At MV light at Erleigh Lake (Lower Meadow) 09/07/05 and in Earley 11/07/05. (NMH)
Also reported from Caversham. (SN)

1216 *Enarmonia formosana*, Cherry Bark Moth
 One at MV trap in Tilehurst on 20/08/05. (JH)
 At MV trap at Erleigh Lake (Lower Meadow) on
 9/07/05. (NMH)
 One at MV light at Emmer Green on 16/07/05

1370 *Sitochroa palealis*
 One seen at Calcot on 7/08/05.
 (JH)
 A fine Pyralid moth which was
 formerly a SE and coastal
 species and is increasing its
 range.

1415 *Orthopygia glaucinalis*
 One at MV trap at Tilehurst on
 22/06/05 and two on 26/10/05.
 (JH)
 Also at MV trap at Earley on 11/07/05. (NMH)
 One reared from larva found in dried leaf litter at
 Emmer Green which hatched 20/06/05. (JHFN)

1461 *Assara terebrella*
 At MV trap at Earley on 26/06/05, 08/07/05 and
 07/10/05. (NMH)
 A local species which is occasionally plentiful.

1534 *Pyrgus malvae*, Grizzled Skipper
 Two at Ashampstead Common on 15/05/05. (JH)

1545 *Colias croceus*, Clouded Yellow
 A pristine male at Hartslock, SU616796 on
 10/10/05 (CMTR)
 A very late record for this species

1561 *Lycaena phlaeas eleus*, Small Copper
 One seen at Green Park on
 03/06/05, and ten seen in the
 Harris Garden on 4/08/05. (JH)
 Also at Red Cow, Cholsey
 between 6/05/05 and 4/10/05
 with a maximum of 30 on
 1/08/05. (TR)

1572 *Aricia agestis*, Brown
 Argus
 Two at Stichens Green on
 3/08/05 and five at Calcot on
 15/08/05. (JH)
 Also at Red Cow, Cholsey
 between 31/05/05 and 14/09/05,
 with a maximum of 37 on two
 days. (TR)

1575 *Lysandra corydon*, Chalkhill Blue
 About 100 at The Holies on 18/08/05. (JH)
 Also small numbers at Red Cow, Cholsey from
 30/07/05 to 9/08/05 suggesting a possible new
 breeding site. (TR)

1585 *Apatura iris*, Purple Emperor
 Females seen on two occasions on a stony
 woodland track at Rushall Manor Farm. A pristine
 female walking on the ground and making short
 flights 10/07/05, and one moribund in the same
 place 10/08/05. (CD)
 Female at Rushall Farm in late
 Sept/early Oct. (CD)
 Recent reports show that
 numbers of this wonderful insect
 are increasing

1593 *Aglais urticae*, Small
 Tortoiseshell
 One seen at Shinfield Park on
 16/03/05. (JH)
 A poor year at Red Cow
 Cholsey, the maximum count

was just 3. (TR)

1600 *Boloria selene selene*, Small Pearl-
 bordered Fritillary
 A maximum count of 16 seen at Pamber Forest
 on 7/06/05. (GD)

1627 *Coenonympha pamphilus pamphilus*,
 Small Heath
 Five seen at Hartslock on 29/05/05 and one at
 Lardon Chase on 18/08/05 (JH)
 Also seen at Red Cow, Cholsey on 9/06/05 and
 29-30/08/05. (TR)

1638 *Macrothylacia rubi*, Fox Moth
 One at MV trap at Padworth Common on
 27/05/05 during a BMG moth trapping evening.
 (MH)

1661 *Archiearis parthenias*,
 Orange Underwing
 Just taking flight at 10 am
 26/03/05, Bucklebury Common.
 (MWS)
 A day-flying moth.

1677 *Cyclophora albipunctata*,
 Birch Mocha
 One at MV trap at Padworth
 Common on 27/05/05 during a
 BMG moth trapping evening.
 (MH)
 A heathland species.

1699 *Idaea rusticata atrosignaria*, Least Carpet
 Two at MV trap at Emmer Green on 16/7 &
 23/07/05. (JHFN)
 One at Mortimer West End on 29/06/05. (GD)
 Not recorded by Brian Baker but known to be
 increasing generally.



Sitochroa palealis



Orange Underwing - underside
Archiearis parthenias

1716 *Rhodometra sacraria*, Vestal
 One seen at Decoy Heath on 1/05/05. (JH)
 One at Red Cow, Cholsey on 26/10/05. (TR)
 A pretty, immigrant species.

1771 *Theria juniperata juniperata*, Juniper Carpet
 One at MV trap at Emmer Green on 18/10/05. (JHFN)
 In an urban environment likely to be associated with cultivated junipers.

1791 *Philereme vetulata*, Brown Scallop
 One at MV trap at Red Cow, Cholsey during the RDNHS moth night on 19/06/05. (TR)
 One seen in Caversham. (SN)
 A local species.

1882 *Pterapherapteryx sexalata*, Small Seraphim
 One at MV trap at Padworth during a BMG moth trapping evening on 27/05/05. (MH)
 One at Red Cow, Cholsey during the RDNHS moth night on 19/06/05. (TR)
 A local species.

1889 *Macaria notata*, Peacock Moth
 One at MV trap at Padworth during a BMG moth trapping evening on 27/05/05. (JH)
 Considered to be a scarce species in VC22.

1943 *Hypomecis roboraria*, Great Oak Beauty
 Cranbourne Chase on 18/6 and 26/06/05. (DJW)
 A local species in oak woods

1982 *Hemaris tityus*, Narrow-bordered Bee Hawk-moth
 One by day at Pamber Forest on 2/06/05. (GD)
 A local species. No recent records up to 1994 according to Brian Baker.

1984 *Macroglossum stellatarum*, Humming-bird Hawk-moth
 One at the Harris Garden on 21/09/05. (JH)
 Three at Emmer Green between 18/6 and 2/09/05. (JHFN)
 Three at Red Cow, Cholsey on 13/7, 19/7 and 27/07/05. (TR)

1992 *Deilephila porcellus*, Small Elephant Hawk-moth
 One at MV trap at Red Cow, Cholsey during the RDNHS moth night on 19/06/05. (TR)
 One at Lardon Chase on 8/06/05 and one at MV trap at Tilehurst on 10/06/05. (JH)

2009 *Ptilodontella cucullina*, Maple Prominent
 One at MV trap at Tilehurst on 20/08/05. (JH)
 At MV trap at Earley on 28/07/05. (NMH)

2019 *Clostera curtula*, Chocolate Tip
 At MV trap at Red Cow Cottage, Cholsey, singles on 29/4 and 21/7. (TR)

2031 *Leucoma salicis*, White Satin
 One at Mortimer West End on 13/07/05. (GD)

2039, *Atolmis rubricollis*, Red-necked Footman



Red-necked Footman - mature larva
Atolmis rubricollis

Larva beaten from birch at Berry's Copse on 28/09/05. Pupated on 8/10/05. (MWS)
 One at MV light at Earley on 23/06/05. (NMH)
 Occasional recent records mostly confined to the west of the county.

2069 *Tyria jacobaeae*, Cinnabar
 Two seen in Green Park on 1/07/05. (JH)
 Seven seen in Caversham. (SN)



Small Elephant Hawk-moth
Deilephila porcellus

2119 *Peridroma saucia*, Pearly Underwing
Four at MV trap on four nights between 15/9 and 12/11/05. (JHFN)

The later specimens probably local bred but might also be late immigrants as weather conditions were favourable at the time.

2219 *Shargacucullia lychnitis*, Striped Lychnis
Reared from a larva collected in 2004 in Emmer Green. It hatched on 17/06/05. (JHFN)

2236 *Lithophane hepatica*, Pale Pinion
One at MV trap during the BMG meeting at Tubney Wood on 19/03/05 and one at Tilehurst on 28/03/05. (JH)

Four at MV trap at Emmer Green between 9/3 and 25/03/05. (JHFN)

2260 *Conistra rubiginea*, Dotted Chestnut
One at Mortimer West End on 18/03/05. (GD)

2312 *Ipimorpha subtusa*, Olive
One at Red Cow, Cholsey on 21/07/05. (TR)
Local and not common.

2315 *Dicycla oo*, Heart Moth
Five on 26/06/05 and one on 14/07/05 at Cranbourne chase. (DJW)
A target species in the draft Biodiversity Action Plan for the Reading area.

2336 *Apamea ophiogramma*, Double Lobed
One at Red Cow, Cholsey on 21/07/05. (TR)
A very local species.

2352 *Eremobia ochroleuca*, Dusky Sallow
One at Wild Marjoram flowers at Ashridge Wood on 31/07/05. (MWS)

2396 *Elaphria venustula*, Rosy Marbled
At MV trap at Padworth during a BMG moth trapping evening on 27/05/05. (JH)
At Cranbourne Chase on 14/6 and 26/06/05 (DJW)
The first record for the county in 1964 has been followed by steady increase.

2397 *Panemeria tenebrata*, Small Yellow Underwing
One at Emmer Green on 26/05/05. (JHFN)
One at Red Cow, Cholsey on 19/06/05. (TR)
A pretty, day-flying moth which can be easily mistaken for the Pyralid *Pyrausta aurata*.

2400 *Helicoverpa armigera*, Scarce Bordered Straw
One at MV trap at Earley on 29/10/05 (NMH)
An uncommon migrant species. A good record in a year with relatively few immigrant species.

2421 *Bena bicolorana*, Scarce Silver-lines



Scarce Silver-lines - young larva in Autumn
Bena bicolorana

Two larvae collected from Oak at Bomb Dump BBOWT reserve on 1/10/05. (MWS)
One at MV trap at Erleigh Lake on 9/07/05 (NMH)

2473 *Laspeyria flexula*, Beautiful Hooktip
One at MV trap at Emmer Green on each of 23/6 and 2/07/05. (JHFN)
At MV trap during a BMG moth trapping evening at Moor Copse 17/06/05. (JH)
At MV trap at Red Cow, Cholsey during the RDNHS moth night on 19/06/05. (TR)
One at MV trap at Earley 23/06/05 (NMH)

2484 *Schrankia costaestrigalis*, Pinion-streaked Snout
At MV trap at Early on 18/08/05. (NMH)
A small macro-moth easily mistaken for a Pyralid.

CONTRIBUTORS

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

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RECORDER'S REPORT FOR ENTOMOLOGY and OTHER INVERTEBRATES 2005

Chris Raper

This year saw some interesting sightings but I must admit that I had trouble getting out at times that were good for photography or collecting. The elements always seemed to conspire against me!

Insecta

Odonata

Libellula depressa, Broad-bodied Chaser

First year there was no record for this species, Red Cow, Cholsey. (AR)

11/06/05 one female Moor Copse NR, Tidmarsh. (MGTR)

Orthetrum cancellatum, Black-tailed Skimmer
Singles on 21/6 and 22/6, Red Cow, Cholsey. (AR)

Calopteryx virgo, Beautiful Demoiselle
8/05/05 Hogmoor Copse, Moor Copse NR, Tidmarsh. (MGTR)

Calopteryx splendens, Banded Demoiselle



Banded Demoiselle (female)
Calopteryx splendens

Vagrants from the Thames on 20/6, 21/6, 27/6 and 3/7, Red Cow, Cholsey. (AR)

Pyrhosoma nymphula, Large Red Damselfly
8/05/05 Garden, Purley-on-Thames (MGTR)
8/05/05 & 27/05/05 Hogmoor Copse, Moor Copse NR, Tidmarsh. (MGTR)

Coenagrion puella, Azure Damselfly
8/06/05 Garden, Purley-on-Thames (MGTR)
9/06/05 Park Wood, Moor Copse NR, Tidmarsh. (MGTR)

Enallagma cyathigerum, Common Blue Damselfly
8/05/05 Garden, Purley-on-Thames (MGTR)
27/05/05 Hogmoor Copse, Moor Copse NR, Tidmarsh. (MGTR)

Ischnura elegans, Blue-tailed Damselfly
16/08/05 Garden, Purley-on-Thames. (MGTR)

Anax imperator, Emperor

Singles on 21/6, 8/7, 11/7 and 21/7, Red Cow, Cholsey, Red Cow, Cholsey. (AR)
9/06/05 Moor Copse NR, Tidmarsh. (MGTR)

Aeshna juncea, Common Hawker

2/08/05 Moor Copse NR, Tidmarsh. (MGTR)
7/8 & 12/08/05 Garden, Purley-on-Thames. (MGTR)

Aeshna cyanae, Southern Hawker

Singles on 2/8, 3/8, 5/8, 9/8, 20/8, 29/8 and 14/9, Red Cow, Cholsey, Red Cow, Cholsey. (AR)
11/07/05 Park Wood, Moor Copse NR, Tidmarsh. (MGTR)
12/08/05 Garden, Purley-on-Thames. (MGTR)

Aeshna mixta, Migrant Hawker

Singles on 8/8, 20/8, 14/9 and 19/9, Red Cow, Cholsey, Red Cow, Cholsey. (AR)

Aeshna grandis, Brown Hawker

Up to two on most days between 10/7 and 25/8 with one late record on 21/9, Red Cow, Cholsey. (AR)
27/06/05 Park Wood, Moor Copse NR, Tidmarsh. (MGTR)
8/07/05 Garden, Purley-on-Thames. (MGTR)

Sympetrum striolatum, Common Darter

12/08/05 Garden, Purley-on-Thames. (MGTR)
21/08/05 Moor Copse NR, Tidmarsh. (MGTR)

Ephemeroptera

Ephemera lineata, (a mayfly)

Caught at light on the RDNHS mothing evening at Red Cow, Cholsey 20/06/05. (CMTR)
This is the rarer of the large mayflies. Watch out for it along with *E. vulgata* near large, muddy rivers and *E. danica* on more gravel-bottomed streams. Adults are easy to identify using the Naturalist's Handbooks key to Mayflies.

Ephemera danica, (a mayfly)

Moor Copse NR, 30/05/05. (CMTR)

Ephemera vulgata, (a mayfly)

Hartslock NR, 7/06/05. (CMTR)

Orthoptera

Meconema thalassinum, Oak Bush-cricket
20/08/05 Garden, Purley-on-Thames, on
Contorted Willow. (MGTR)

Metrioptera roeselii, Roesel's Bush-cricket



Roesel's Bush-cricket
Metrioptera roeselii

More numerous than ever in the meadows this year, Red Cow, Cholsey. (AR)
Seen and heard in profusion at Hartslock Reserve all through late summer. (CMTR)

Tettigonia viridissima, Great Green Bush-cricket
Buttler's Hangings 25/06/05.
(CMTR)

One of my favourite sightings of 2005 – this species was sub-adult at the time we visited but they were very common and still very impressive.

Chorthippus vegans, Heath Grasshopper
Silchester Common 12/07/05.
(CMTR)



Great Green Bush-cricket
Tettigonia viridissima

Coleoptera

Lucanus cervus, Stag Beetle
Singles on 18/6 and 11/7, Red Cow, Cholsey,
Red Cow, Cholsey. (AR)

Typhaeus typhoeus, Minotaur Beetle
01/01/05, Upper Bucklebury, SU542683,
Female, at security light, 1am. Heard buzzing
while examining moth trap. Found this beetle on
the ground below the security light. Mild evening
for time of year. (MWS)

Melolontha melolontha, Cockchafer
Moth trap counts – 3 on 29/4 and 4 on 5/5, Red
Cow, Cholsey, Red Cow, Cholsey (AR)

Gnorimus nobilis, Noble Chafer
23/06/05 - Highmoor - SU701848 (MNS)

This large green RDB chafer was last recorded in Oxfordshire in 1998 from Kingwood & Peppard Commons, the first records for south Oxfordshire for 75 years. Survey work carried out as part of the Noble Chafer BAP found 9 larvae in a rotting branch of a dead cherry at Highmoor, the first



Rose Chafer
Cetonia aurata

proven breeding site for this species, together with further evidence of breeding in cherry trees on Kingwood & Peppard Commons

Cetonia aurata, Rose Chafer

Garden, Tilehurst, 25/05/05, (CMTR)
This species regularly visits my garden, buzzing around shrubs and bushes with large white flowers.

Strangalia quadrifasciata, (a longhorn beetle)
Silchester Common, 12/07/05
(CMTR)
18/07/05, Thatcham Reedbeds LNR,
GR: SU498668, visiting Hogweed.
(MWS)

Stenocorus meridianus, (a longhorn beetle)
30/05/05, Moor Copse BBOWT Reserve, GR: SU634731, on Hazel leaf. (MWS)

Harmonia axyridis, Harlequin Ladybird
2 larvae found at Great Knollys Street, Reading under a large lime tree on 17/09/05 were reared through. Voucher specimens have been deposited at Reading Museum. Collected and determined by DGN.

Chrysolina Americana, Rosemary Beetle
This distinctive species was new to the UK 1963 and then rediscovered in 1994. The colony in my garden in Winnersh appeared in 1998 and continues to flourish. Adults are about 6-8mm long, metallic green and red and feed on Rosemary, Lavender and Thyme. One to watch out for in your gardens! (MNS)

Hymenoptera

Andrena hattorfiana, Scabious Bee



Scabious Bee
Andrena hattorfiana

27/08/05, Purley-on-Thames, SU655762. Found nectaring on a red Scabious cultivar - new location. (CMTR)

9/07/05, Hartslock Reserve, SU616796. (CMTR)

22/07/05, Ashridge Area, SU495778, Visiting Scabious flower by foot path. (MWS)

Cerceris rybyensis, Ornate-tailed Digger Wasp
Upper Bucklebury, 7/08/05. Identified by MNS, this species is a predator of bees and was photographed dragging home what looked like a male *Lasioglossum calceatum*. (CMTR)

Philanthus triangulum, Bee Wolf
Silchester Common, 12/07/05. (CMTR)
This wasp is a predator of Honey Bees (*Apis mellifera*) and makes burrows in sandy soil.

Macropis europaea, (a solitary bee)
30/07/05, Wellington Country Park, SU735628, Visiting flowers of Yellow Loosestrife on east bank of lake. (MWS)

Anthophora plumipes, Hairy Footed Flower Bee
15/05/05, Cholsey Marsh BBOWT Reserve, SU600854, Visiting Comfrey, just south of Ferry Lane. (MWS)

Vespa crabro, Hornet
Upper Bucklebury, 16/05/05 (MWS)
Hornets again seem to be cropping up all over the place so it looks like they are genuinely becoming more common.

Gasteruption jaculator, (a parasitic wasp)
23/08/05 Warburg NR, Bix Bottom (CMTR)
This is an unusual, gangly-legged wasp, often seen at Hogweeds – a bit of a favourite of mine.

Orthopelma mediator, (an ichneumon wasp)
Hartslock 29/05/05. Seen ovipositing into Sweet Briar leaf buds. (CMTR)
This species is a parasitoid of the common Robin's Pin-cushion gall, which in turn is caused by a tiny wasp called *Diplolepis rosae*.

Diptera

Sturmia bella, (a parasite fly)



Sturmia bella (female)

23/08/05 Warburg NR, Bix Bottom. (CMTR)
This species was new to the UK in 1998 and has spread throughout the south of England, feeding on its hosts – medium/large butterfly larvae (mostly Small Tortoiseshell, *Aglais urticae*).

Lophosia fasciata, (a parasite fly)
23/08/05 Warburg NR, Bix Bottom. (CMTR)
This is a very scarce species that attacks bugs. This is a new location for it, but the species has a habit of cropping up sporadically all over southern England.

Phasia barbifrons, (a parasite fly)
16/08/05, Upper Bucklebury, SU542683, 7 females, visiting Hemp Agrimony. (MWS)

Phasia hemiptera, (a parasite fly)



Phasia hemiptera (male)

Some males at Warburg Reserve, Oxon 23/07/05. Including one small highly melanistic one with black wings. (CMTR)
This bug parasitoid seems to be becoming more common in southern England.

Phasia obesa, (a parasite fly)
One male, Upper Bucklebury 7/08/05 (CMTR)

Asilus crabroniformis, Hornet Robber Fly

A disappointing year for this fly. Modest numbers seen most days between 1/8 and 4/9. Maximum count was 8 on both 8/8 and 25/8. Hay was cut on 7/9 which probably accounts for the end to sightings at that time. Also modest numbers might be explained by adjoining setaside which could have constituted a preferred habitat., Red Cow, Cholsey. (AR)

Odontomyia tigrina, (a soldier fly)

28/05/05, Dinton Pastures Country Park, SU783718, Female by pond in Junior Rangers Nature Reserve (MWS)

Atylotus rusticus, Four-lined Horsefly

09/07/05, Otmoor Rifle Range, SP574131, Female, on ripening infructescence of Curled Dock and male visiting flowers of Wild Carrot. (MWS)

Bibio anglicus, (a St. Mark's fly)

Males and females seen, 16/05/05, Cholsey Marsh (CMTR)

This is one of the rarer species but it is fairly common in our area.

Chrysotoxum cautum, (a wasp-mimicking hoverfly)



Chrysotoxum cautum

Cholsey Marsh, 16/05/05. Buzzing along the footpath, looking just like a worker wasp – but something about it made me think otherwise and when I got closer I could see it was definitely a fly, not a wasp! (CMTR)

Chrysotoxum festivum, (a wasp-mimicking hoverfly)

Garden, Tilehurst 7/08/05 (CMTR)

Leucozona glauca, (a hoverfly)

02/08/05, Clatford Arboretum, SU162689, Visiting Wild Angelica. (MWS)

Anasimyia lineata, (a hoverfly)

28/05/05, Dinton Pastures Country Park, SU783718, by pond in Junior Rangers Nature Reserve. (MWS)

Tropidia scita, (a hoverfly)

05/06/05, Hungerford Marsh, SU331688, Female, visiting Creeping Buttercup, just W of BBOWT Reserve. (MWS)

Merodon equestris Greater Bulb-fly

Garden, Tilehurst, 17/06/05. (CMTR)

This species is common in gardens and gets its common name from the larval food plant - cultivated *Narcissus* bulbs.

Volucella zonaria, (a hornet-mimic hoverfly)



Volucella zonaria (female)

Males & females seen singly in my garden, Tilehurst on or around 30/07/05. This huge hornet-mimic hoverfly is spreading west across the UK and is a relative newcomer to our area. (CMTR)

Volucella bombylans, (a bumblebee mimic hoverfly)

27/05/05 Hogmoor Copse, Moor Copse NR, Tidmarsh. (MGTR)

Sicus ferrugineus, (a bumblebee parasitoid)

Silchester Common 12/07/05. (CMTR)

Chrysopilus cristatus, (a snipe fly)

Moor Copse NR, 12/06/05. in foliage by the riverbank. (CMTR)

CONTRIBUTORS

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

(AR) Tony Rayner, (CMTR) Chris Raper, (DGN) David Notton, (MGTR) Martin Raper, (MNS) Matt Smith and (MWS) Malcolm Storey.

RECORDER'S REPORT FOR VERTEBRATES 2005

Tony Rayner

I am grateful to those members who faithfully record mammals, reptiles etc. However to assess how most species are faring locally, we need even more recorders. This report suggests reptiles, Bank Voles, and Muntjacs were among the creatures that enjoyed a good year. On the other hand it would seem that amphibians, Hedgehogs and wood mice had a thin time in 2005.

Yet again there are several records of Weasels, but is it only Gordon, Ro and myself who ever see one?

We are asked to send dead Polecats away for examination. I can only say that the one found in July smelt so awful, that you wouldn't want to touch it with a barge pole!

Where the location is not stated, the reports relate to Red Cow, Cholsey. SU592868.

FISH

No records received - *anglers please note.*

AMPHIBIANS

Bufo bufo,
Common
Toad

01/03/05

One adult in
garden in
Wokingham

(RG41). (CD)
Breeding

colony in

grounds of Breach House, Cholsey. Several pairs
rescued from sunken foundations of an
abandoned building on 4/04/05. SU 579844 (RL)



Common Toads (in amplexus)
Bufo bufo

Triturus vulgaris, Smooth Newt

Present through the year, but no records kept.
(TR)

Rana temporaria, Common Frog

Feb 05 Thirteen in Tilehurst garden. SU666742
(JH)

16/03/05 Spawn seen in shallow pool in R. Pang
at Eling Farm (CD)

17/03/05 Frogs in garden pond in Park Lane
Tilehurst, 3 balls

of spawn on 19th
and a fine total of
9 balls on 20th –
10-14 days later
than 2004 and
again, not many
tadpoles. (CD)

17/04/05 One
small frog – the
year's sole
record at Red
Cow. (TR)



Common Frog
Rana temporaria

REPTILES

Lacerta vivipara,

Common Lizard

Seen on 74 days
from 17/03/05 to
17/10/05.

Youngsters were
frequently seen on
one log pile, and
lizards were found
over a much wider
area than before.
This local population
continues to grow at
an impressive rate.
When the lizards
were first seen in
years 2001 and
2002, these two
years produced just
11 sightings – often
of a single reptile. In
2005 there were 145 sightings, mostly groups
rather than singles. (TR)



Common Lizard
Lacerta vivipara

Anguis fragilis, Slow-worm

Seen on 103 days from 18/03/05 to 17/10/05.
Mating was witnessed on several occasions and
at least two 'families' were successfully reared.

Although seen on fewer days
than in 2004, it was evident that
numbers had increased
significantly. The maximum
count was 18 on 3/04/05. (TR)
See separate article on this
lizard.

Jan/Feb05 First year Slow-
worm in Tilehurst garden.
SU666742 (JH)

Colony reported in Wokingham
(RG41) not seen since autumn
2004. (CD)

Natrix natrix, Grass Snake



Grass Snake
Natrix natrix

Seen on 61 days from 2/04/05 to 26/10/05. Although seen on fewer days than in 2004, numbers seen suggest the population is gradually increasing again. This might indicate some adaptation to alternative prey following the loss of frogs on the site. (TR)

2/04/05 One under a sheet in 5 acre field, Moor Copse SU638741 (MR)

30/06/05 One at Pingewood SU 692708 (GC)

BATS

Yet again we have a dearth of bat records, we must do much better in 2006.

Pipistrellus pipistrellus, Pipistrelle Bat

First seen on 19/03/05 in Caps Lane, Cholsey. SU 595871 (TR/RR)

Regular sightings at Red Cow through the year until October. General impression of a small increase in this species, but no detailed records kept. (TR)

Roost of at least 65 in a garage, Wallingford Road, Cholsey. SU 592869 (TR)

INSECTIVORES

Erinaceus europaeus, Hedgehog

Yet another very poor year for hedgehogs. Definite link with spread of badgers.

8/05/05 One in road verge opposite Red Lion, Cholsey. SU 590867 (TR/RR)

22/06/05 Three in a Tilehurst garden, SU666742 (JH)

19/07/05 Corpse in meadow – just skin remaining. The skin was gone a few days later. (TR)

21/09/05 One running on road at North Moreton at 21.30 SU 562891 (TR)



Hedgehog
Erinaceus europaeus

Sorex araneus, Common Shrew

Seen on 59 days from 25/01/05 to 26/10/05 when recording ceased. Probably under-recorded as these animals are exceedingly quick to run away when disturbed. (TR)

Sorex minutus, Pigmy Shrew

Seen on up to 9 days from 8/04/05 to 24/09/05. (TR)

6/08/05 One in box in Park Wood. SU 637742 (MR)

14/08/05 One in another box in Park Wood. SU 637742 (MR)

Talpa europaea, Mole



Mole (left foreleg)
Talpa europaea

As in previous years, numerous fresh molehills in neighbour's orchard, seldom venturing further afield. (TR)

Seen throughout area on farmland and woodland edges. Particularly noticeable at Eling Farm on 16/03/05. (CD)

CARNIVORES

Meles meles, Badger



Badger (in captivity)
Meles meles

- Jan 05 Albino badgers at Checkendon. (SH)
14/02/05 One crossing main road by former Fairmile Hospital. SU 595859 (CH) *Unusual for one to be seen in this spot.*
24/04/05 Lower Basildon, Badger activity on hillside. (CB)
1/10/05 Tunnel dug under meadow fence. (TR)
17/10/05 Another tunnel dug under meadow fence. (TR)
Oct 05 One crossing road at Tokers Green (MS)
10/11/05 Further tunnel dug under meadow fence. (TR)

Mustela nivalis, Weasel

- 25/01/05 One or two ran back and forth along a fencing rail, viewed from kitchen window. Twice it fell off the rail and scrambled up again. (RR/TR)
1/02/05 Alongside River Winterbourne, near entrance to the Watermill Theatre, Bagnor. SU 452693 (GC)
11/03/05 One crossing Wallingford Road, Cholsey. SU 598876 (TR)
11/03/05 One by canal bridge, Ufton Nervet. SU 617686 (GC)
28/03/05 One peering out from pile of discarded fence rails at 16.00.* (RR/TR)
29/04/05 One by meadow pond at 11.40 (TR)
26/05/05 One on B4009 at Newbury SU 482688 (GC)
1/10/05 One crossing Wallingford Road, Cholsey at 14.00 SU 596875 (RR)
12/10/05 One crossing Wallingford Road, Cholsey SU 598876 (TR)
30/10/05 One at Wargrave, SU 786778 (GC)
7/11/05 One by meadow pond at 15.00 Must have surprised this animal, when first 'flushed' it was hidden in vegetation little over a foot away! (TR)

*It seems we had a resident animal based under timber pile by meadow pond. No evidence of breeding this year.

Mustela erminea, Stoat

- 4/02/05 Road casualty at Fulscot. SU 546890 (RR)
9/08/05 One crossing main ride in Park Wood. SU637742 (MR)
6/10/05 Abingdon SU 470969 (GC)
14/10/05 Boxford SU 435700 (GC)
27/11/05 Crowmarsh Gifford SU 618898 (GC)

Mustela putorius, Polecat

- 28/03/05 Road casualty on Dorchester bypass SU 583948 (RR/TR)
12/07/05 Corpse by Tractor shed, very smelly possibly killed by rat poison put out within adjoining farm buildings. The first site record of this nocturnal beast (TR)

Mustela vison, Mink

- 22/09/05 Chazey Heath SU 693772 (GC) Gordon comments he has never before seen one so far from water.
7/10/05 Sutton Courtney SU 516934 (GC)

Vulpes vulpes, Fox



Fox (in captivity)
Vulpes vulpes

- 16/01/05 One running from river Pang to Park Wood. SU637742 (MR)
16/03/05 One crossing road by junction to Little Wittenham. SU 568918 (TR)
28/03/05 Road casualty on Dorchester bypass SU 588937 (RR/TR)
21/04/05 One crossing ride at 2pm. in Hogmoor Copse. SU 635741 (MR)
3/06/05 One in Park Wood. SU 637742 (MR)
7/06/05 One on meadow path at 17.00 Sole site record in the year, but plenty of signs of regular visits. (TR)
26/07/05 Castle Hill, Reading SU 709729 (GC)
10/08/05 Burghfield SU 680706 (GC)
8/10/05 Barking in meadow at midnight (TR)
Regular visitor to Wokingham garden (RG41) throughout year. (CD)

DEER

Muntiacus reevesi, Muntjac

General impression is of an increase in these deer being killed on roads.

Jan05 One in Tilehurst garden (DL)

8/01/05 One on drive at 9.00 AM (TR)

22/02/05 One near Wittenham Woods. SU 578923 (TR)

10/03/05 One male on drive at 11.00 AM (TR)

11/06/05 One at Sonning Common SU 714795 (GC)

14/06/05 One in a Tilehurst garden, only the second record for this site SU 666742 (JH)

8/08/05 Sonning Common SU 716794 (GC)

9/08/05 One standing in river Pang, Moor Copse reserve. SU 635742 (MR)

19/09/05 Female and fawn on drive (TR)

22/09/05 Frilsham SU 552726 (GC)

2/11/05 Sonning Common SU 715794 (GC)

13/12/05 Female and fawn on drive - probably the same two seen in September (TR)

Capreolus capreolus, Roe Deer

18/02/05 Two raced across Wantage Rd at 10.00 towards Streatley. SU 578835 (TR)

14/04/05 Two at Beenham SU 584700 (GC)

2/11/05 One at Bix SU 732848 (GC)

11/11/05 Herd of 25 seen in open on very windy day near Farnborough, West Berks. Previously noted that deer leave woodland in high winds.

Dama dama, Fallow Deer

19/06/05 One at Mapledurham SU 674773 (GC)

RABBITS & HARES

Lepus europaeus, Brown Hare

7/02/05 Two near Westridge Green above Kiddington Cottage. SU 570798 (RR)

13/02/05 Three on Bury Down SU 479841 (TR)

20/02/05 Two at Cholsey SU594868 (RR/TR)

22/02/05 Four including two boxing seen from Wittenham clumps. SU 565922 (TR)

CONTRIBUTORS

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

(CB) Chris Bucke; (CD) Colin Dibb; (CH) Clive Hill (Reading RSPB); (DL) Dora Lucy; (GC) Gordon Crutchfield; (JH) Jan Haseler; (JW) Jed Wyatt; (MB) Meryl Beek; (MR) Martin Raper; (MS) Martin Sell; (RL) Richard Lewington; (RR) Ro Rayner; (SH) Stephen Hart (farmer); (TN) Ted Nelson; (TR) Tony Rayner.



Muntjac (skull)
Muntiacus reevesi

28/02/05 Two north of Boxford SU 432744 (GC)

16/03/05 10 at Eling Farm running and boxing (mad March hares) and not perturbed by 100+ people walking past field. (CD)

18/03/05 One at Cholsey SU594868 (RR/TR)

25/06/05 Three in field near Butlers Hangings reserve. (MB)

27/08/05 Two in field on return from Sliding Hill along Ickneild Way. (MB)

15/10/05 Three in Cholsey field SU 600867 (TN)

A local naturalist also saw leverets with these three adults. (JW)

Oryctolagus cuniculus, Rabbit

Still plentiful, but myxomatosis more prevalent again.

RODENTS

Sciurus carolinensis, Grey Squirrel

More frequent in autumn 2005 in large wooded garden in Wokingham (RG41) with 3 seen every day. (CD)

Seen through the year, as common as ever.

Apodemus sylvaticus, Wood Mouse

Only two definite records, and these of animals that were dead or dying. If poison was involved, there was no evidence of similar effect on other small mammals. (TR)

6/08/05 One in a box at Park Wood. SU 637742 (MR)

14/08/05 One in another box at Park Wood. SU 637742 (MR)

Microtus agrestis, Field Vole

Seen on 60 days from 25/01/05 to 26/10/05. No recording outside that period. (TR)

16/01/05 Eight under sheets in Park Wood. SU 637742 (MR)

2/04/05 Four under a sheet in Hogmoor Copse. SU 635741 (MR)

Clethrionomys glareolus, Bank Vole

Seen on 87 days from 17/02/05 to 26/10/05 when recording ceased for the year. (TR)

30/06/05 One at Pingewood SU 692708 (GC)

Arvicola terrestris, Water Vole

19/12/05 One at Linear Park, Calcot SU 662713 (JH)

THE WEATHER AT READING DURING 2005

Ken Spiers

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Annual Throughout the year high pressure was the dominant feature. Annual mean pressure was the highest since before 1960. When they were positioned over or near to the British Isles, they acted as a block to any weather systems, rerouting them north or south of the country. Ten of the months recorded rainfall below their long-term monthly average and this resulted in the year being the driest since 1990 and the third driest since 1921, April and July being the only months above their long-term rainfall average. For the ninth year running, the annual mean temperature was above average, although it was the lowest mean since year 2002. However, on the all time list, which dates back to 1921 here at the University, it rates as tenth warmest. July was the warmest and February and December the coldest months of the year. For a year that recorded above average temperatures and below average rainfall, sunshine levels were very disappointing. August was the only summer month above average, as well as being the sunniest for any time of the year since July 1999 and the month of February the dullest.

January With high pressure positioned to the south of the British Isles and winds blowing from a westerly direction, weather conditions at the start of the month were unsettled. It became stormy at times during the start of the second week; however, daily rainfall amounts were light, occasionally moderate. During this period, the 10th recorded the wettest day of the month, 4.3 millimetres of rainfall. Rainfall totals remained low, making this January the driest since 2000. Temperatures remained well above average, keeping to these values until the 21st, when they dropped to near average until the end of the month. It became cold enough for a shower of sleet during the evening of the 24th. There was only one air frost recorded, the lowest number for any January for fifty years. Overall, it was the warmest January since 1999 and the second warmest since 1990. It was quite sunny throughout, with the total, fifteen percent above the long-term average, making it one of the sunnier January's in the last fifteen years.

February The first part of the month was mild, occasionally, fronts would track their way across the country, getting weaker as they approached our region. As a result, the days were often cloudy, with little or no rain and with night frosts. During the middle of the month, it did become stormy for a time, with showers of rain and hail. Winds then began to blow from a northerly direction with high pressure to the west of the British Isles. Temperatures began to drop and, by the 21st, winds blowing in off the North Sea brought snow showers. After that every day, through to the end of the month, recorded light and occasionally moderate snow showers, with frosts at night.

March The cold spell, that was the feature of the second half of February, continued into March. Snow showers were reported on the first five days, feeling bitterly cold in the northerly wind. However, during the start of the second week, it became dry, with a few sunny intervals. The third week witnessed exceptionally mild conditions, with temperatures peeking on the 20th, when 20° Celsius was recorded. This was the highest temperature for any day in March since 1990. Although temperatures remained on the mild side, the high pressure that was responsible for the summer-like conditions had moved away eastwards, allowing fronts to move in from the west. However, rainfall amounts were small and by the 24th there was a return to dry, sunny conditions. The last three days saw a complete change, when a slow moving depression tracked its way across the region, producing nearly as much rain as the previous two months together.

April With winds blowing straight from North Africa, the month opened warm, dry and sunny. However by the 4th, conditions became more unsettled and remained so for the next seven days. It had become cold enough, by the morning of the 8th, for a shower of snow. There was, for a few days, a return to warm, dry and sunny conditions. However, by the middle of the month, it was back to the unsettled routine. During the next couple of weeks, the days were showery, interspersed by sunny periods and with temperatures remaining above average. The last two days of the month, saw much warmer air blowing from a south-westerly direction; resulting in the 30th being the warmest day of the month.

May A very pleasant spring month, with the first few days starting warm, influenced by winds blowing from the Iberian peninsular. However, for the following two weeks, the weather did become a little more

unsettled as high pressure built to the southwest of the country and winds veered, to blow from a northwesterly direction. Temperatures remained near normal during this period and any rain, associated with fronts moving over the region, remained light. The month was characterised by quite a few sunny and dry days throughout the month, and by the last week of the month, it had become very warm and dry.

June Short periods of fine, dry and warm weather, interspersed by cloudier days, with occasional light rain was the feature of the first half of the month. By the 17th high pressure had developed and as it moved eastwards brought warm air from southern Europe over the country. Temperatures reached a peak on the 19th, with a reading of 30.6° Celsius. As a result, this highest temperature would turn out to be the highest of the year. However, by the 24th, weather conditions had turned thundery, still remaining hot until the end of the month, with a return to more normal weather conditions.

July A very unseasonable start during the first week of the month, witnessing unsettled weather, with temperatures and sunshine levels below average. From the 8th onwards, there was dramatic rise in temperatures, as high pressure began to dominate. The following two weeks were dry, very sunny, with temperatures reaching a peak on the 14th, when a temperature of 29.9° Celsius was recorded. After this short burst of summer, there was a complete change, giving way to low-pressure systems tracking across the country, with rainfall amounts light to moderate and temperatures below average. The last two days were very miserable, when a slow moving low pressure produced heavy amounts of rainfall, little sunshine and temperatures on the cool side.

August A pleasant enough summer month, starting dry and sunny with temperatures near normal. The 4th being the only wet day during the first week. The 7th to the 9th were very sunny days, with the 8th recording 13.7 hours, the sunniest August day for well over twenty years. As the month progressed temperatures began to increase and during this period peaked on the 19th, with a temperature of 28.8° Celsius. From then on the weather turned changeable, wet at times and cold enough for precipitation to fall as hail, during a thunderstorm, a very unusual event for August. The last few days of the month saw high pressure positioned over the country, bringing dry, warm air from the continent. It became very sunny and hot, reaching 29.7° Celsius, on the last day of the month.

September A dry, warm and sunny start to the month, with the 4th producing the warmest day of the month, 28.4° Celsius. However, by the evening of the 4th, low pressure had replaced the high and gave heavy falls of rain for a time, resulting in the day being the wettest of the month. The next couple of weeks remained dry for the most part, interspersed by a few wet days. Temperatures remained above average, however, during the middle of the month, it became cloudy and temperatures dropped below average. The rest of the month was changeable, with above average temperatures, showery and with sunny intervals.

October Apart from the first week, when high pressure was in charge of our weather, the rest of the month was unsettled. The month overall was very mild, with only one day, the 18th, recording daytime temperatures below the monthly average. The 27th recorded a temperature over 20°; it is a very rare occurrence to have temperatures this high in the latter half of October. With pressure barely reaching average during the second half of the month, much of the time was miserable, with only a few sunny days. However, with this type of weather, there were very few ground frosts and no air frosts.

November Although the first twelve days were unsettled, temperatures remained on the mild side. Most of the month's rainfall fell during this period. A cold front moving southwards over the country, on the 15th, heralded a change in conditions. With temperatures dropping well below average, there were heavy frosts recorded on the 17th to the 22nd. The 18th recorded the lowest minimum temperature for sixteen years, -5.0° Celsius. The rest of the month remained cold and dull, with very little rain and more night frosts.

December With above average temperatures, a few sunless days and plenty of rain, the first week was very unsettled. The 1st was the wettest day of the year, recording nearly an inch of rain. By the second week high pressure had taken over and temperatures began to drop to more normal levels, with frosts at night. The next two weeks remained calm, sunny at times and dry, with some hard frosts on the 18th and 19th. As high pressure moved away, during the last few days of the month, the weather turned more unsettled, as frontal systems moved across the country producing light to moderate falls of rain. Temperatures recovered to near normal but there was little in the way of sunshine.

DAILY WEATHER RECORDS: 2005 – UNIVERSITY OF READING (WHITEKNIGHTS)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Daily Temperatures °C													
Mean	6.5	4.5	7.8	9.8	12.3	16.5	17.7	17.0	16.3	13.9	6.5	4.5	11.1
Mean Maximum	9.4	7.2	11.3	14.1	17.0	21.5	22.4	22.4	20.7	17.1	10.3	7.7	15.1
Mean Minimum	3.6	1.8	4.2	5.5	7.6	11.5	13.0	11.6	11.8	10.7	2.7	1.2	7.4
Mean Daily Range	5.9	5.4	7.3	9.0	9.2	9.8	9.7	9.1	8.4	6.2	5.1	6.2	7.2
Extreme Maximum	13.9	13.0	20.0	21.3	28.5	30.6	29.9	29.7	28.4	21.8	17.5	12.0	30.6
Date	7th	12th	19th	30th	27th	19th	14th	31st	4th	11th	2nd	16th	19th Jun
Extreme Minimum	-1.6	-5.0	-3.8	-2.1	0.2	3.6	8.1	7.8	4.5	4.9	-5.0	-5.0	-5.0
Date	14th	28th	4th	9th	11th	7th	5th	7th	24th	9th	18th	18th	18th Nov&Dec
Extreme Grass													
Minimum	-6.9	-10.0	-9.0	-8.5	-7.8	-4.2	2.0	0.5	-2.5	-2.1	-11.8	-11.1	-11.8
Date	14th	28th	4th	9th	11th	7th	5th	8th	17th	3rd/9th	18th	18th	18th Nov
Days with													
Air frost	1	8	7	2	0	0	0	0	0	0	11	13	42
Ground frost	22	20	16	15	8	5	0	0	2	4	20	27	139
Hours at/below 0.0°C	4.0	46.0	44.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	84.0	143.0	325.0
Sunshine Hours													
Total	62.4	56.7	91.4	129.9	221.2	198.3	182.1	239.9	154.2	97.8	76.3	58.7	1568.9
% of Possible	23.5	20.2	24.9	31.3	46.0	40.2	36.6	53.3	40.6	32.6	28.3	23.5	34.9
Daily mean	2.00	2.03	2.95	4.33	7.14	6.61	5.87	7.74	5.14	3.15	2.54	1.89	4.28
Precipitation													
Amount in mm	20.5	12.2	41.5	58.8	20.5	22.9	65.7	51.9	48.3	56.0	31.9	52.0	482.2
Rain days	15	11	10	19	9	11	12	10	9	14	11	7	138
Maximum rain in one day													
mm	4.3	3.7	23.5	16.4	9.5	8.1	16.9	9.6	14.6	17.4	7.9	23.7	23.7
Date	10th	10th	29th	24th	21st	24th	30th	24th	4th	24th	2nd	1st	1st Dec
Mean wind speed													
mph	5.7	4.1	3.7	3.6	4.3	3.4	3.4	2.5	3.0	3.5	3.3	2.7	3.6
Days with													
Sleet or snow	2	9	5	1	0	0	0	0	0	0	0	0	17
Snow lying	0	2	3	0	0	0	0	0	0	0	0	0	5
Fog at 0900 GMT	0	2	1	0	0	0	0	0	0	2	2	3	10
Thunder	0	0	0	2	1	1	0	2	0	0	0	0	6
Hail	0	3	0	1	0	0	0	1	0	0	1	0	6
Pressure													
Mean (mbs)	1023.2	1023.1	1017.5	1014.6	1017.6	1019.7	1016.5	1019.3	1019.0	1016.0	1017.8	1019.6	1018.7
Highest	1034.6	1037.8	1035.5	1031.2	1027.8	1037.5	1032.9	1027.9	1029.2	1032.7	1041.1	1043.2	1043.2
Date	3rd	3rd	9th	11th	11th	8th	11th	4th	18th	4th	23rd	10th	10th Dec
Lowest	999.4	1005.2	1000.9	995.6	1007.1	1006.6	1002.5	1003.8	1009.9	996.1	994.9	981.6	981.6
Date	18th	12th	2nd	18th	1st	30th	25th	25th	25th	21st	26th	2nd	18th Apr