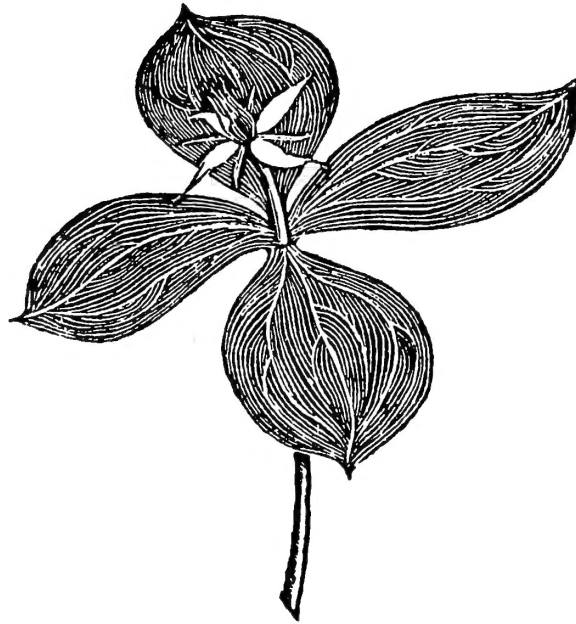


S-339 B

THE NATURAL
HISTORY MUSEUM
11 APR 2002
PRESENTED
GENERAL LIBRARY

The Reading Naturalist

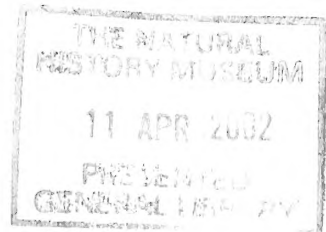
No. 54



Published by the Reading and District
Natural History Society

2002

Price to Non Members £2.50



THE READING NATURALIST

No 54 for the year 2001

The Journal of the
Reading and District Natural History Society

President

Mr Rod d'Ayala

Honorary General Secretary

Mrs Catherine Butcher, 42 Long Lane, Tilehurst, Reading, RG31 6YJ

Honorary Editor

Dr Malcolm Storey, 43 Berry's Road, Upper Bucklebury, Reading, RG7 6QL

Editorial Sub-committee

The Editor, Dr Alan Brickstock, Mrs Janet Welsh, Mr Hugh H. Carter
Miss June M. V. Housden, Mr David G. Notton

Honorary Recorders

Botany: Mrs Janet Welsh, 56 Grove Road, Sonning Common, Reading, RG4 9RL

Fungi: Dr Alan Brickstock, 25 Cockney Hill, Tilehurst, Reading, RG30 4HF

Entomology: Mr David G. Notton, Museum of Reading, Blagrove Street, Reading, RG1 1QH

Invertebrates other than insects: Mr Hugh H. Carter

Vertebrates: Mr Hugh H. Carter, 10 Northbrook Road, Caversham Park Village, Reading RG4 6PW

CONTENTS

Obituaries		1
Members' Observations		2
Excursions	Meryl Beek	3
Wednesday Afternoon Walks	Alan Brickstock	5
Meetings (2000-2001)	Catherine Butcher	6
The Fishlock Prize		7
Membership	Norman Hall	8
Presidential address: Why Some Plants are Rare	Rod d'Ayala	8
The Woodland of Maiden Erlegh Park	A. M. Mannion & S. Peck	15
Some Thoughts on Foot and Mouth, Agriculture and the Future of the Countryside	Rod d'Ayala	17
A new Leaf-mining Fly – <i>Phytomyza hellebori</i>	Malcolm Storey	19
The Bowen collection of Lichens at Reading Museum	David G. Notton	20
A new Toadstool – <i>Leccinum cyaneobasileucum</i>	Malcolm Storey	21
Recorder's Report for Botany 2001	Janet Welsh	22
Recorder's Report for Mycology 2001	Alan Brickstock	25
Recorder's Report for Entomology 2001	David G. Notton	29
Recorder's Report for Invertebrates other than insects 2001	Hugh H. Carter	32
Recorder's Report for Vertebrates 2001	Hugh H. Carter	32
The Weather at Reading during 2001	Ken Spiers	34

EDITORIAL

The most significant event in the countryside this year was the outbreak of the particularly infectious "O" form of Foot and Mouth ("F & M"). 2,030 cases resulted in the slaughter of 3,915,000 animals (DEFRA: 21 Oct 01), restrictions on stock movements and the countryside being closed to the public for several months during the first half of the year. The total cost is estimated at £2.4 – 4.1 billion, including £2 – 3 billion to the tourist industry compared to £800 million – 2.4 billion to agriculture (Countryside Agency report). Farmers were paid £1.1 billion compensation (DEFRA: 21 Oct 01). For comparison, the National Health Service costs over £50 billion per year.

The effects on nature conservation include serious over- or under-grazing of pasture generally, including reserves. Fields containing stock when the restrictions came in were reduced to bare ground. Many livestock farmers must be now considering their options. Rod d'Ayala's article reflects on both the immediate effects and the implications for the future of the countryside.

For the Society, the outbreak meant the cancellation of several field meetings. It also largely prevented members from undertaking fieldwork other than in their own gardens, along roadsides and in public parks. This has reduced both the number of excursions to report on and of records passed to the Recorders.

Copyright © 2002 Reading & District Natural History Society.

Photographs illustrating "Why Some Plants are Rare" (pages 8-14): Copyright © Rod d'Ayala

Lichen photograph (page 20): Copyright © 2001 Museum of Reading

All other photographs: Copyright © 2002 Malcolm Storey

OBITUARIES

Humphry Bowen 1929–2001

Humphry Bowen died on August 9th, aged 72. Although an environmental chemist in his academic career, he was also a naturalist with a wide range of interests, but above all a deep love of plants. He worked in conjunction with many organisations – he was a council member of the BSBI and of the local wildlife trust, BBOWT, and was botanical recorder for both Dorset and Berkshire. As a lecturer at the University of Reading, he biased his research towards environmental issues affecting plants, such as sulphur dioxide pollution, oil spillages and toxic elements in the environment. He led many outings for the Reading Naturalists as well as overseas tours, particularly to Greece and Turkey. His ability to identify almost anything that was living was legendary, including taxonomically difficult groups such as lichens.

Most of us will have used his *Flora of Berkshire*, published in 1968, and, just before his death, he was able to publish the *Flora of Dorset*, a flora which competes well with the new high standards which have been set recently in comital floras. Humphry gave many talks for the Reading Naturalists over the years, and these were always superbly illustrated and delivered with a great sense of humour. His death is a sad loss to us all, but those of us who knew him will have gained from his wealth of experience and knowledge and these live on in his books and collections.

Vera Paul OBE, 1913 - 2001

Vera Paul joined the Reading and District Natural History Society in the early 1950's, becoming an Honorary Member in 1980. In her working life she was a teacher, from which she retired in 1980.

Vera's main natural history interest was botany, having learnt plants from an early age in her home area of Peppard, South Oxfordshire. She supplied records for the Naturalist for many years. Vera was a modest unassuming person with a strong will and an equally strong drive to get things done; her achievements were recognised in 1980 when she was awarded an OBE for services to conservation.

She was a founder member of the Berkshire, Buckinghamshire and Oxfordshire Naturalists Trust (now BBOWT) and was the driving force behind the acquisition of the Warburg Reserve at Bix Bottom. Without her foresight and determination, the Trust would not have purchased the site, one of the best Wildlife Trusts Reserves in the country, and probably still BBOWT's best site. At the time, the purchase price (£25,000) was enormous, and she raised the money with all sorts of fund-raising schemes. Her fund-raising role, and financial support, for BBOWT over many years cannot be understated. She ran the Trust Christmas Raffle for many years and organised other major appeals. She was also responsible for the purchase of the Hartslock nature reserve at Goring. The RDNHS have had a long association with this site, one of only three current sites for the Monkey Orchid in Britain.

Perhaps her main claim to (botanical) fame, was the discovery of the Ghost Orchid in 1931, in a wood near her home at Peppard. Secretly, she was very proud of this find and the botanical fame that followed her throughout her life. In the late 1950's she carried out botanical surveys in the South Oxfordshire area as part of the BSBI survey. The results of this national survey lead to the publication of the national plant atlas in 1962. In the last few years of her life, she was unable to carry out work in the field, but was always interested in any new plant finds or queries. Over the years she has backed many projects, both intellectually and financially.

On a personal note, it was Vera who gave me my chance in conservation. I first worked for the Trust as a volunteer, and ended up being posted to the Warburg Reserve at Bix Bottom. At that time Vera was still very heavily involved with the running of the reserve, and she was instrumental in my being taken on as staff member at "her" reserve – first in a part time capacity and then full time. One of my first jobs was to update the botanical records for the Reserve, a detailed list of over 400 species primarily made or compiled by Vera herself since the 1960's.

Vera Paul, and a few select people like her, came from a generation of naturalists who were the pioneers of modern conservation. Without people like her our corner of Berkshire, Buckinghamshire and Oxfordshire would be a poorer place. In the face of the continual and rapid changes and threats to the countryside, it would have been easier just to watch, and accept, the advances and "improvements" of the modern world. There was very little in the way of an environmental movement or the wider public comprehension of "green" issues that there is today. We should be grateful that she, and her colleagues, chose to intervene and did not allow everything to be lost.

MEMBERS' OBSERVATIONS

Before the talks begin, members are invited to announce their observations. Here is a selection of observations from the 00/01 winter meetings:

- 26 Oct 2000 Tony Rayner reported a Brimstone butterfly and a Red Admiral at The Red Cow, Cholsey, a pair of Common Darters laying, 1 Grass snake and 1 Black Redstart on a roof, several times between 19/10 and 21/10
Ken Grinstead had found Common Fly Agaric at Silchester
Norman Hall had seen a Red Admiral in his garden
- 29 Oct 2000 Michael Keith-Lucas reported that the only specimen in Reading of *Salix x sepulcharis* subsp. *sepulcharis* (a rare weeping willow) had blown down during a storm. The tree is being left to re-root and small twigs have been taken to help re-establish it.
- 9 Nov 2000 Martin Sell had seen a Comma butterfly.
Alan Brickstock reported a Red Admiral.
Ken Grinstead had spotted a Brimstone butterfly.
- 23 Nov 2000 Alan Brickstock had seen Little Egret at Field Farm.
- 11 Jan 2001 Chris Bucke had seen a Red Admiral at Bix Bottom and Great Tits.
Michael Fletcher had had 3 House Sparrows in his garden.
Ken Grinstead had seen a Song Thrush 2–3 weeks ago.
Martin Sell reported almost an invasion of Blackbirds, Waxwings flying westwards and a pair of Foxes
Tony Rayner had seen a bumble bee on Dec 23rd and Dec 29th.
- 8 Feb 2001 Maureen Baggelly complained that the Council had felled Cherry Plum trees at Woodley Aircraft Museum because of Tower Mustard.
June Housden had seen a Muntjac
Norman Shaw had seen Tree Creepers every day for a month
Martin Sell reported 30 Corn Bunting, Yellowhammers on Downs at Churn; Merlin and Sparrowhawks at Twyford
Alan Brickstock mentioned a pair of Smew at the Fox and Hounds pit.
Tony Rayner had seen 6 Bewick Swans and 15 mute swans at Benson
Brian Sargent mentioned a cock Pheasant and seven females
Meryl Beek had had a Pheasant sitting in her back garden
Ray Lush reported 50 Lapwing in field at Wokingham
- 22 Feb 2001 John Marshall saw 15 Pied Wagtails on his lawn
Alan Brickstock found Coltsfoot flowering along the Kennet and Avon canal at Burghfield Bridge
- 8 March 2001 Martin Sell saw bumble bee, and has active Frogs in the garden
Alice Ayers reported a pair of Frogs in *amplexus* (male clasping female) but that the female was unfortunately dead two days later.

EXCURSIONS

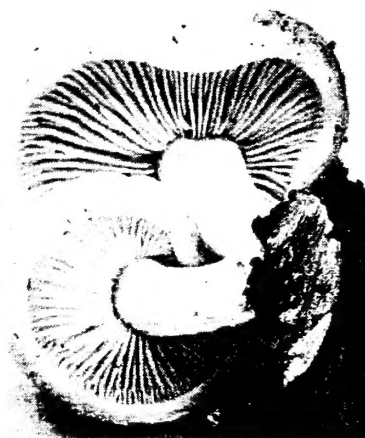
Meryl Beek

In common with so many in the countryside, this has been a difficult year for the Society. In the early part of the year reserves and footpaths were closed due to Foot & Mouth restrictions. This resulted in nine meetings, including the annual coach outing, being cancelled. It was possible to reconvene two of the Wednesday walks in that period by changing the venues. Later in the summer, with paths re-opening, some very enjoyable times, with plenty of wildlife observations, have taken place. Most of the missed meetings will be included in next season's programme, giving the secretary an easier year – perhaps she deserves it!

2000

October 21st. Four members went on a general interest morning walk in the Hambleden valley area, beyond Henley. Trees were fruiting in abundance, including Whitebeam, Guelder Rose, Buckthorn, Spindle, Hornbeam and Crab Apple. Muntjac deer were seen, and the rutting of Fallow Deer was heard loudly in nearby woods. About 20 of these deer had been spotted earlier in the week in this area. As usual, Red Kites were seen and a nice group of Long-tailed Tits flew out of a wooded area as the party passed by.

November 5th. Fungus foray in California Country Park. Alan Brickstock was not well enough to attend, but Gordon Crutchfield kindly led it. There was a good turnout of 16 people, and 78 species were found. A very interesting find was the uncommon *Leptopodia atra*. Other species of interest included *Cortinarius pholideus*, *Panellus serotinus*, *Rhodotus palmatus*, *Auriscalpium vulgare*, and *Helvella crispa* and *lacunosa*.



Rhodotus palmatus

December 9th. Ten members enjoyed an afternoon at the Vale & Downland Museum in Wantage. Among other things, this museum has an interactive auditorium presenting the history of the district, including the story of Wantage and the rural life of the surrounding countryside. David Attenborough's voice was unmistakable in the commentary!

2001

January 27th. 11 members went with Martin Sell to Pennington Marshes. It was nice to welcome Neville Diserens who joined the group for the day. A visit into the New Forest on the way home produced sightings of Lesser Spotted Woodpecker and a group of Hawfinches.

February 24th. 17 people turned out at Moor Copse to hear Séan O'Leary tell us what can still be identified in the plant world during the winter months. Séan's special interest is mosses and liverworts and he began with a brief introduction to the rather strange life cycle of these 'bryophytes'. He then showed examples of 'pleurocarpous' and 'acrocarpous' mosses, and described the differences between mosses and liverworts. The exquisite beauty of these tiny plants, which is often ignored, was emphasised. Although no unusual species were identified in the field, *Platygyrium repens*, a rarity which is known from this site, was confirmed later. This was the last meeting before access to the countryside was stopped due to the Foot & Mouth outbreak.

May 13th. Janet Welsh and the owner Andrew Hawkins led 11 members and a dog around Flowercroft Wood and Kent's Hill starting from Peppard church. These woodlands, which appear as thick hedges on a map of Harpsden parish dated 1586, were partly planted up with conifers in the 1960s but nevertheless retain a good woodland flora, if somewhat dispersed. Andrew explained that the management aim is to fell the conifers in stages to return the woodland to a deciduous cover. Additional coppicing and general clearance is carried out by the Green Gym from Sonning Common. Acid gravels overlie the chalk slopes to give a variety of soil types and tucked away in the south-eastern corner is a lovely, secluded west-facing hillside of species-rich chalk grassland. The woods, which have some large internal wood banks, support three scarce plants in Oxon: Green Hellebore, Narrow Buckler-fern and Scaly Male-fern. On the damp rides Wood Sorrel is locally abundant and also seen were Yellow

Pimpernel, Creeping Jenny, Bog Stitchwort and Water Mint (the latter was a new record). Grass Snakes were uncovered from the reptile sheets. It was a bit early to appreciate the grassland in its full glory though the anthills had two typical spring-flowering species of open, well-drained soils: Early Forget-me-not and Common Cornsalad. There were a few Twayblades on the scrub edge and many spikes of last year's Carline Thistle in the open turf. Later in the season, Wild Thyme, Yellow-wort, Common Milkwort, Pyramidal Orchid, Autumn Gentian and Common Dodder can be found.

May 16th. Burghfield pits with Martin Sell. 13 people present. In the last $\frac{1}{4}$ hour of a rather overcast evening, the party listened to superb nightingale song, which sent everybody on their way very happy!

June 9th. Alan Brickstock lead an excellent outing to Old Burghclere Pit, with 17 people and two dogs. White Helleborine, Twayblade, Common Spotted Orchid, Fly Orchid, Milkwort and Cowslip were all in profusion. It was interesting to see the effect of two fenced off areas on Fly Orchid and Cowslip. Inside the fence there was a dense mass of Cowslip seed-heads, whereas outside there were none to be seen – all eaten by rabbits. The Fly Orchids were also far superior inside the exclosures. The whole reserve had been very heavily cropped by rabbits, to the detriment of many species, but we still made nearly the 'ton', with 99 species recorded. Sadly, the Candytuft which used to grow here on the bare chalk areas seem to have died out – Alan has not seen them for the last couple of years.



Fly Orchid

June 22nd. The Society made a return trip to the familiar stamping ground of the Warburg Reserve, led by Rod d'Ayala, for an evening walk and picnic meal. This was followed by an evening of moth trapping under the expert guidance of Martin Townsend and Geoff Martin.

August 5th. The visit to Sliding Hill, south Oxfordshire, co-incided with a welcome sunny interlude after much rain and 15 people turned out for the Society's first visit to this site. The Iron Age encampment, high on the chalk, has a rich flora cropped by rabbits and gardened by ants. Common Rockrose, Wild Thyme and Small Scabious are abundant. There are several colonies of Wild Candytuft and plenty of late-flowering blooms were found. Chalkhill Blue butterflies were numerous and a Silver-spotted Skipper was seen, the site's notable rarity.

August 18th. 9 people and one dog went on a walk in the Ashbury downland area. This was designed to link with the Vale & Downland museum visit last December. It was a wettish afternoon, which had attracted large numbers of snails in the hedgerows. The party could have done with a malacologist! Ashbury village was interesting with its chalk block and sarsen stone cottages and a church with a south facing Norman door. A fine Duke of Argyll's Tea Tree (*Lycium barbarum*) overhung a wall in the village, and Pellitory of the Wall (*Parietaria judaica*) was also admired. The unexpected *piece de resistance* was found at the end of the walk in a field under the chalk downland – a splendid solitary Woolly Thistle (*Cirsium eriophorum*) just coming out!

September 1st. Malcolm Storey lead 17 people around Bucklebury Common in the sunshine. Several fungi were identified, together with Heath Rush and the three common species of Heather. Unfortunately the Heather had bloomed early this year and was almost over – at the beginning of September it is usually at its best.

September 15th. Chris Bucke lead 7 people and a dog in lovely walking conditions from Ramsbury via the green lanes to Axford, returning through meadows beside the River Kennet and past Ramsbury Manor. Quantities of pathside Blackberries, Dewberries and Damsons were consumed. Belted galloway and highland cattle were admired. The stars of the walk were Swans: Black-necked, near Axford Farm and Black, on and near the lake at Ramsbury Manor. A gentle relaxing walk.

September 30th. Alan Brickstock lead a Fungus foray at Wildmoor Heath. Despite a terrible forecast, a number of brave forayers had a dry morning, but a second group in the afternoon got very wet! There were nice Chanterelles and also *Hydnum rufescens*. *Lactarius*, *Mycena* and *Russula* were better represented here than at any other foray this season, leading to a respectable total of 76 species.

Ken Thomas has led 5 Wednesday walks in the Checkendon, Compton, Rotherfield Greys, Padworth Common and Aborfield areas. A change has been to start the walks at 10.15 am, instead of in the afternoon, and pub snacks & drinks after the walk have been enjoyed.

All leaders are thanked for the time and energy they have put into the excursions. Numbers participating have been better this year than for several recent seasons. There will be plenty of variety in the year ahead, so come and join in!

Meryl Beek.

In addition, 4 bird watching meetings have been led by Martin Sell.

WEDNESDAY AFTERNOON WALKS

Alan Brickstock

The April walk had to be cancelled owing to Foot and Mouth restrictions, so the first one was at Checkendon in May, although this had to be slightly modified for the same reason, and this necessitated starting and finishing with some road walking. Nevertheless six people and three dogs much enjoyed a very good walk through some attractive woodlands, followed by lunch at the Four Horse-shoes. The church of John the Evangelist at Stoke Row has some beautiful windows by a local artist. One is supposed to contain a thimble, although we were unable to find it, but we did find a very nice Bat in one window, reflecting the artist's name – Bat! 67 species of spring flowers were found, but none of great note.

I unfortunately missed the June walk – to my shame I forgot!

The July walk was at Rotherfield Greys on a warm mainly overcast day, but with a few sunny spells. Eight people and three dogs had a superb walk followed by an excellent lunch. Exactly 100 species of plants this time; more interesting species included Round-leaved Cranesbill, Wall Rue, Orpine, Lesser Snapdragon, Fool's Parsley, Corn Marigold, Crow Garlic, and a fine array of Pyramidal Orchids. An excellent day!

The August walk was at Ufton Nervet, with a good turnout of 11 plus three dogs enjoying a varied walk with lots to see, including 65 species of plants and nine species of fungi. The outstanding finds were a very nice group of the uncommon *Boletus sanguineus*, a strikingly blood-red species, and a plant which puzzled us for a while, but turned out to be Water Purslane. This is locally common in wet ground along paths etc., as it was here. Also of interest was the cultivation relict *Phacelia tanacetifolia*.

The final Wednesday walk of the summer season was round Arborfield and the River Loddon in September. Six people and three dogs – the 'hard core!' – on a cloudy and very windy day, with drizzle at times, followed by a very good lunch at Shinfield. 60 species of plants, including Purple Loosestrife, Trifid Bur-marigold, Yellow Balsam (Jewel Weed) and Flowering Rush. The chapel here was early 13th century, rebuilt in 1256, but with only ruins remaining. These have a fine Yew tree, possibly dating from the 13th century?

JOTTINGS FROM A FAMILY'S ARCHIVES – I

Cradle Naturalist – Caversham

When my very young brother said "Dad has gone to the natural MYSTERY meeting" wasn't he wiser than he could have realised? This thought came to me while listening to Rod d'Ayala's presidential address in October, "Why some plants are rare". Rod gave the example of Military Orchids growing happily in Homefield Wood in the Chilterns, and after that they are found growing in a nature reserve in Suffolk, while Monkey Orchids grow only at Hartslock and in Kent. It's a mystery why these orchids are not found in other suitable growing places. The talk in November by Dr. Richard Fortey on Evolution showed many biological mechanisms proved by scientific experiment and observation. But what of the rest of creation? Still plenty of mystery here! Taxonomy, understanding of ecosystems & life cycles all have their place, but I, for one, am glad that there is a lot else out there for us all to wonder at.

MEETINGS (2000–2001)

Catherine Butcher

Fifty members attended the first lecture of the season which was held on 26th October 2000. This was given by Mr. Nick Bowles and entitled "Butterflies of the Chiltern Escarpment". Unfortunately, he forgot to bring his slides, for which he offered profuse apologies. However his lecture was so interesting, giving us a fascinating insight into the life cycle of butterflies and moths, that this was soon forgotten. We learned that butterflies were mainly territorial, living in fragmented pockets of habitat. Four species hibernated during the winter months, the Peacock butterfly being the longest living butterfly in this country. He mentioned rare species, Chalkhill Blue, Adonis Blue, Silver Spotted Skipper and migrants from the Continent. We were told that the Monarch butterfly could fly for seventy two hours, without landing, provided it was warm enough. Many hundreds of them are blown over from America. They only live for 4 – 5 days and then perish, exhausted from flying across the Atlantic.

On 9th November we were once again pleased to welcome Mr. Victor Scott who had visited the Society on two previous occasions. Forty members and friends attended this excellent lecture with slides of five different areas of Southern Ireland, where he and his wife have enjoyed several holidays. Southern Ireland has a mild climate with plentiful rain. The central area is agricultural, the least forested and contains acid peat bogs. Geologically, the west coast, including the Burren in County Clare, is limestone. The botany of Ireland holds many mysteries, as the country supports many plants which have their origins in other parts of the world, including the Americas and Mediterranean lands. There is uncertainty as to whether some plants have been introduced by man or have re-appeared from distant pre-ice age times before the division of the present continents.

The first, area visited was in Connemara National Park, near the group of mountains known as the Twelve Pins, which rise to around 3,000 ft. Here grow quite naturally well away from any human habitations, some very unexpected plants, including New Zealand Flax, Red-hot Pokers and Pyrenean Hebes. Two forms of heather, St. Dabeoc's Heath (*Daboecia cantabrica*) and Mackay's Heath (*Erica mackaiana*) grow. On the acid shales and conglomerates in the mountains of Kerry are found the Large-flowered Butterwort (*Pinguicula grandiflora*), Irish Spurge (*Euphorbia hyberna*) and the endemic St. Patrick's cabbage (*Saxifraga spathularis*).

The central area is the marshy catchment of the upper Shannon river. The pitcher plant (*Sarracenia purpurea*) originating from North America makes its home here.

On the coast line there are many creatures and plants, including large colonies of jelly fish, seaweeds and sea anemones.

The best loved area is the Burren, an area of limestone pavement supporting a very large number of alkaline-loving plants including Baneberry (*Actaea spicata*), Hoary Rock-rose (*Helianthemum canum*) and Burnet Rose (*Rosa pimpinellifolia*) in several colours. Southern Ireland is a wonderful country for the botanist especially, and is the only place in the world where plants originating in Iceland, the Arctic, the Alps and Pyrennees, all merge naturally.

Another popular lecturer, Mr. Mike Read, spoke on "The Arctic Riviera" to 44 members. He had been working as assistant photographer to Hugh Miles of the BBC in the making of "The Kingdom of the Ice Bear". He had stayed in Greenland for seven weeks from June to July. Starting from Reykjavik he showed slides of Eider Duck, Arctic Terns and Glaucous Gulls, which were in abundance. He then travelled to the Orsted Valley where he showed wonderful slides of glaciers and huge ice caps. After teaming up with four others, Mike and his team flew over huge snow fields and set up camp filming Musk Ox, Arctic Hare and Turnstones. The views over the Valley were stupendous where there was much vegetation. Mountain Avens and Arctic Poppies were widespread. Suddenly there was a severe change in the weather and filming came to a standstill. Mr. Read returned home after seven weeks of peace and solitude. He left with mixed emotions. His last memory was of sitting spellbound by the

constant change of scene, of Musk Ox grazing by the light of the midnight sun and Arctic Poppies swaying gently in the breeze.

After an enjoyable Christmas party, we re-commenced the winter season of talks with Mr. Nigel Snell who spoke on "The Flora and Fauna of the Chilterns". He told members that beech trees were planted 250 years ago and prior to spraying there used to be masses of poppies, Corn Cockle and Corn Marigold. Now Carline Thistles grow in abundance and there are also fields of Cowslips on Mr. Paul Getty's property. At Warren Bank there are clumps of the uncommon Betony. Autumn Gentian is quite common and Fly Orchids and Military Orchids are growing in Homefield Wood. All these plants are typical of chalk soils. Acid soil on top of the hills encourages plants like Heather. He showed slides of typical beech wood with Herb Paris and Wood Sanicle, both indicators of ancient woodland. The Buzzards have now returned and Red Kites are increasing in number. His last slide showed a Red Kite flying against a red sunset, unforgettable.

Mr. Michael Watts, guide for the Chelsea Physic Garden, gave an excellent lecture to members on 25th January. This Garden, which was established in 1673 by apothecaries, is divided into four portions devoted to woodland plants, herbs, rainforest plants or perfumed plants used in aromatherapy. Medicinal plants used in the treatment of heart disease, childhood leukaemia etc. were discussed in detail. Apparently Yew clippings play an important part in the treatment of certain cancers and Snowdrops and Narcissi are being used in the treatment of Alzheimer's disease. This lecture whetted our appetites and we hope to visit this most interesting garden in the future.

Another interesting talk was given by Mr. Martin Harvey of the Hampshire Wildlife Trust who spoke to 53 members on "Save our Bugs". There are approximately 30,000 species of invertebrates in this country and Mr. Harvey had many graphs and diagrams showing the numbers of insects now thought to be extinct, mainly because of loss of habitat. This was due to many factors, e.g. cultivated fields, insecticides, climate change and lack of nectar. He showed examples of habitats, each suitable for different invertebrates and explained ways in which we, the general public, could help, including conservation work parties, drilling holes in old fence posts for bees and wasps, planting Buddleias to provide nectar sources and lastly, not keeping our gardens so tidy!

"The Private Life of the Great Tit" by Dr. Andy Gosler was our next lecture on 22nd February. Dr. Gosler, who is a university research lecturer at Oxford, has been working on a project at Wytham studying the beak measurements of the Great Tit since 1981. Up to 900 next boxes have been installed at Wytham and the birds wear numbered leg rings. Dr. Gosler took us through a year of the Great Tit with up to ten chicks being laid in March, just when caterpillar numbers are peaking. A clutch of chicks consume around 600 caterpillars a day. Their main predators are the Weasel and the Sparrowhawk. They have to cope with a seasonal environment and it was interesting to learn that in order to do this, they change their bill size from summer to winter. To do this they have to wipe their bills on twigs to change the shape. They have thick bills in winter when eating Beech nuts and long thin bills in summer when consuming insects. The Great Tit survives the winter by storing fat underneath its skin. This was a most fascinating lecture and Dr. Gosler certainly provided members with an insight into the life of one of our most common birds.

The lectures during the year proved to be very varied and interesting and we are grateful to Mr. Alan Burt for arranging an excellent programme for the Society.

THE FISHLOCK PRIZE

Fishlock Prize has not been awarded this year.

MEMBERSHIP

Norman Hall

The following members joined in calendar year 2001:

Mrs Brenda Owen
Miss Selina Morrisey
Dennis & Paula Dormer

Mrs Judy Sell
Martin Walton-Evans
Mrs A. G. Gilbey

WHY SOME PLANTS ARE RARE

PRESIDENTIAL ADDRESS – by Rod d’Ayala

(Based on an illustrated lecture given on the 11 October 2001)

The study of plants and their distribution

Man has been studying plants, and their distribution, for a long time. This interest in plants was originally for their medicinal and culinary value, as well as scientific curiosity. The first county floras were written in the 1700’s, and the next two centuries saw county or regional floras being produced for most areas. These detailed works allowed more accurate lists of species and their distributions to be produced, e.g. *The Comital Flora of the British Isles* (1932) by Druce which listed each species and the vice-counties in which they were recorded. (There are 152 vice-counties in Britain, including Ireland and the Channel Islands.) The production of the *Atlas of the British Flora* in 1962 by the Botanical Society of the British Isles (BSBI) was a milestone, giving distributions of species not by county, or vice-county, but 10 kilometre squares. (There are approximately 4000 ten kilometre squares in the 152 vice-counties.) With the advent of modern computers the storing of information and production of distribution maps is easier, with most modern records being made at 2 km square level, and more local records at 1 km square.

From the earliest days of botany, lists of species have been produced. As time has gone on, and more areas have been explored and others recorded in more detail, more species have been found. Advances in taxonomy have led to the splitting of plants into different species, or subspecies. (This can go too far leading to the creation of confusion for normal field botanists, and create a cycle of “splitting” and “lumping” as the scientific debate continues.) Recent techniques of molecular and DNA analysis are leading to yet another revision of taxonomy and a further round of splitting and lumping. Thus there is now a very good idea of what species grow where. The publishing of the *BSBI Millennium Atlas* will provide a welcome and much needed update of the 1962 situation.

What does Rare mean?

From the earliest days of the study of plants it would have been obvious that plants varied in where they grew and how abundant they were. A simple comparison of two areas, e.g. two different vice-counties (with differences in altitude, geology, habitat etc), would give an idea of what grew well in each area and a rough idea of what plants are easy to find and which less so. This allowed an informed statement of what was rare and what common.

An atlas, with species distribution shown by presence or absence in any given grid square gave the opportunity for a more accurate statistical analysis. The rarity of a plant being defined by the number of 10 km. squares it was recorded in. However this approach is too simplistic. A plant may be restricted to one geographical area, or habitat type and have a restricted distribution BUT be abundant where it does grow. In contrast another species may be widespread across a large part of the country BUT only grow in very small, spread-out discrete colonies and over-all be less numerous, than an apparently restricted species. The analysis of rarity using distribution by grid square can be improved by focussing in on smaller squares and/or the number of colonies within each square.

In reality an understanding of a plant’s geographical and habitat distribution and the number of grid squares both have value, and between them provide the best way to gauge the status of any

particular species. Published data is out of date before it even goes to press, and thus represents only a snapshot of what the species is doing. In conservation terms the purpose of estimating a species' rarity is to clarify its status and the need for any conservation measures to look after it. Comparative data collected over a number of years is essential to define if a species is stable, declining or increasing. Some species are restricted to precise geographical and/or habitat niches; they may be very localised with a mere handful of plants in the UK, but they always were and are currently not threatened in any way. This type of species would have a different conservation priority to, for example, formerly widespread species, once common in everyday habitats (e.g. arable weeds in cultivated land), which have declined to the point where some are extinct and others, apparently, going the same way.

Thus the current system of classifying rare plants is based on their distribution (number of 10 km. squares) and a combination of other factors such as whether the population is declining, stable or expanding (including the number and size of colonies). The rarest are the Red Data Book species; those plants recorded from 15 or less 10 km. squares. The second level, the Nationally Scarce plants, are recorded from between 16 and 100 squares. The current list of British Red Data Book Species (excluding Ireland) contains 286 plant species. (It is only concerned with native species.)

Rare versus Common

Common plants are those that have the ability to grow in a variety of different habitats and/or those that grow in common widespread habitats – their requirements are less specialised. Rare plants may grow in the same places, but be unable to compete with the common species with their less precise requirements. Plants that are rare now may a few years ago have been common, but because of current management practices are unable to survive or do well. Good examples of this are some arable weeds, which have been all but eradicated, whilst other annual plant species in fields remain common – being able to cope with the sprays and high levels of fertilisers. Before man started to cultivate Britain these now rare weeds would have been even rarer. They are strongly tied into the cycle of annual cultivation, and before this system was brought into the country would have been a minor constituent of our flora.

In the right place a rare plant may be common, perhaps even dominant over a relatively large area. The absence of this plant elsewhere, in apparently good habitat maybe because of subtle differences between the two locations, not obvious to us (for example in soil conditions or microclimate). Some rare plants do not spread well, they are confined to their locations because they either produce little viable seed, or the seed does not disperse well. Perhaps the seed is good, but conditions for successful germination are very precise and very few places provide the these conditions.

The British flora is much influenced by man, with numerous introductions, both deliberate and accidental. Some of these species are very successful and become problem species. Others are established but remain rare or uncommon not moving far from the area they were planted or grew originally. Our attitude to Japanese Knotweed *Fallopia japonica* would, I feel, be different if it wasn't so good at growing and it didn't take over from absolutely everything else. Contrast this plant to Buddleia *Buddleja davidii*, a well-established and locally dominant introduction that is usually happily accepted. The unusual parasitic plant, Purple Toothwort *Lathraea clandestina* is often positively encouraged where it grows (locally it can be found in Prospect Park in Reading).

Plants can be rare for several reasons including:

- * Always rare and/or localised species confined to particular habitat and/or climatic niche.
- * Historically threatened by over-collection.
- * Threatened by other "unnatural" disturbance (e.g. trampling by visitors).
- * Threatened by habitat loss or change (often associated with modern land use, but perhaps natural).
- * Species which hybridise with a closely related commoner species.
- * Introduced by man, outside their normal range and not spreading (perhaps because they are not able to).

* Records may show some species to be rare, where in reality they are just overlooked (e.g. difficult to identify, inaccessible habitat) and therefore under recorded.

The remaining part of this article describes some of the native Red Data Book species and the habitats they grow in with an explanation, as far as is known, of why they are rare.

Alpines

Alpine areas have their own specialist species, with widespread and common species typical of that habitat, e.g. Mountain Sorrel, *Oxyria digyna*, various Saxifrages, *Saxifraga* spp, and Alpine Bistort, *Polygonum viviperum*. There are a few famous locations in Scotland, which contain a whole suite of rare British alpines, with Ben Lawers probably being the most famous of these sites. The British Isles has only a remnant alpine flora, with most of our rare species being widespread elsewhere in Europe and beyond. Another good place, and one of the best locations to find a good number of these rare species, is Caernlochan in Angus. Scattered around the mountain ledges are a series of very rare British plants growing among the more common alpines and numerous plants also found in lowland areas. These "lowland" plants include woodland species such as Wood Anemone, *Anemone nemorosa*, and Dogs Mercury, *Mercurialis perennis*, and grassland species such as Frog Orchid, *Coeloglossum viride*, and Ladies Bedstraw, *Galium verum*. Potential problems for the rare alpines include trampling by visiting botanists (!) and over-grazing of the hillsides by increasing numbers of deer and sheep. It is somewhat ironic that visiting botanists are potentially one of the main dangers to these plants. A visit to a site like Caernlochan reveals the precarious nature of the habitat where many of these species grow, steep scree faces or narrow rock ledges where a rock fall, or careless foot could easily destroy something very special. However, each of these events also creates opportunities for other plants to colonise, or to maintain or create the right conditions for their continued success. So as long as care is taken and not too many people go they should survive. There are too many rare alpine plants in Caernlochan to cover all of them in this article. The rarities include easily overlooked sedges such as the Close-headed Alpine Sedge, *Carex norvegica*, which can be found on wet rocky ledges and slopes on east and north facing slopes. Growing on bare – usually calcareous – rock ledges is Alpine Fleabane, *Erigeron borealis*, with a daisy-sized flower and basal rosette of leaves. It occurs in two other Scottish locations. Many of the alpine plants have familiar, and common, lowland cousins. In 1813 George Don discovered a colony of Alpine or Purple Coltsfoot, *Homogyne alpina*, in Glen Clova. It remained unseen again, until 1951 and today this remains the only known British locality. It is a small version of the Common Coltsfoot, *Tussilago farfara*, with a basal rosette of smaller leaves and purple flowers. Because of fears of damage by

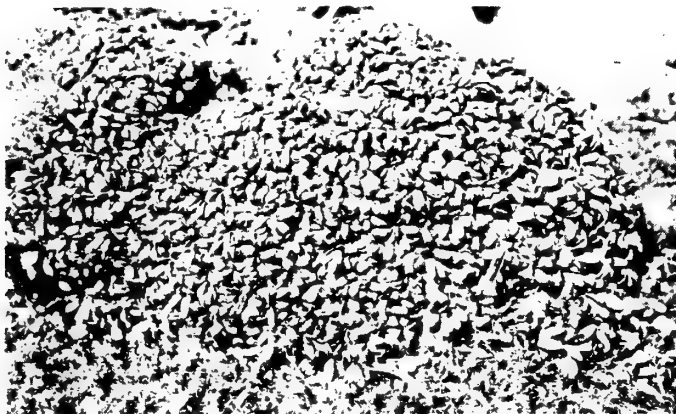


Oxytropis campestris
Yellow Oxytropis

visiting botanists a second colony was established close to the original. It does not seem to spread by seed, but vegetatively, presumably explaining its lack of colonisation of other apparently suitable bare ledges in the area. A larger plant, which forms large colonies on calcareous scree on south facing slopes, is Yellow Oxytropis, *Oxytropis campestris*, a member of the pea family. In Scandinavia it is less particular about where it grows, being found in a variety of lowland and upland habitats. Perhaps the most extreme plants are those that grow on bare vertical rock faces, where (not surprisingly) they have more or less no competition. In Clova there are two ferns that fit this niche, Alpine Woodsia, *Woodsia alpina*, and Oblong Woodsia, *Woodsia ilvensis*. These are found in separate locations on only a few rock faces. The required habitat is not uncommon, and it is probable that these species are true relict species of a colder climate, hence their scarcity. Both species are relatively common in the UK compared with some of the other species, being found in Scotland, Northern England and Wales. The last species in, or close to, Caernlochan is one of exposed bare summit rocks. Alpine

Catchfly, *Lychnis alpina*, is a delightful member of the pink family which grows on the remote summit plateau on Meikle Kilrannoch in skeletal soils on an outcrop of serpentine rock. In the Lake District it grows on rocks of similarly high metal content. These are the only two British localities. The Angus plants are like those found in Norway and those from Cumbria more like those from Labrador on the North American continent. In Angus it grows with Thrift, *Armeria maritima*, and other low growing plants, whose relatives are to be found in coastal areas. Presumably, tolerance to high levels of

metals and salts means that these plants can grow here, but why does the Alpine Catchfly grow nowhere else? The spot is barren, windswept and cold, not very suitable for pollinating insects and thus it may be self-pollinating. Reproduction is exclusively by seed and there are several thousand plants in the colony so it does work. The exposed location and association with rocks of high metal content suggests that this is a true alpine with a specific requirement for high levels of salts.



Diapensia lapponica Diapensia

In eastern Scotland is another mountain top plant, only found in Britain on one hillside in Inverness. *Diapensia*, *Diapensia lapponica*, is an arctic plant that grows on an exposed rocky ridge kept clear of snow by high winds. (It is in its own family – the Diapensiaceae.) There are about 1200 clumps of the plant, a dwarf evergreen shrub growing up to 15 cm high. It was only discovered in 1951. The plant is long-lived with some Canadian plants having been dated at 100 years old. The Scottish plants are the most southerly in Europe, the plant having a circumpolar arctic – sub-arctic distribution.

Apart from people and grazing animals there is another potential threat: climate change. Our alpine flora is on the edge of its climatic range in Britain, and global warming could lead to the loss of some of the more particular and specialised species, especially the relict species which are clinging on in Britain in literally only a few locations.

Coastal

Coastal sites are in many ways different from alpine areas, but for plants they have similar problems. They are often areas of high exposure, with the ability to restrict moisture loss being essential.



Glaucium flavum Yellow Horned Poppy

Habitats are often unstable (dunes, cliffs) and there is a lot of salt about, which needs specialised adaptations to thrive. Some coastal plants are widespread and common, yet others are restricted to specific regions, some to literally a few sites only. Some familiar specialists of the coast are Yellow Horned Poppy, *Glaucium flavum*, (shingle), Sea Pea, *Lathyrus japonicus*, (shingle), Sea Campion, *Silene maritima*, (cliffs, shingle, etc.) and Sea Holly, *Eryngium maritimum*, (dunes). There are several rarities either restricted geographically and/or by habitat requirement. White Rockrose, *Helianthemum apenninum*, is restricted to steep rocky limestone slopes at Brean Down (Somerset) and Berry Head (Devon). These sites are similar in climate to

Mediterranean conditions; in Europe it is chiefly a montane Mediterranean species. In the wild it does not grow from seed well and may spread by rooting stems. (I have collected seeds of this plant and germinated them quite easily!) This plant shares its very specific British distribution with two other species Honewort, *Trinia glauca*, and Somerset Hair Grass, *Koeleria vallesiana*. There are several species of



Lathyrus japonicus Sea Pea

Sea Lavenders of which 10 are Red Data Book species. These include Matted Sea Lavender, *Limonium bellifolium*, and the British endemic, Rock Sea Lavender, *Limonium binervosum* agg, (9 separate species). All these have very precise ecological niches and/or restricted distributions. Each of the nine species of Rock Sea Lavender is found in a precise, often very restricted, geographical area, with an overall distribution around the coast of England and Wales. Matted Sea Lavender only grows on the North Norfolk Coast in the zone between salt marsh and sand dune on firm sandy or silty substrate – wind blown sand is a threat. This niche is very precise, so it easy to see why the species is not common, but why does it only grow in North Norfolk? The species may have developed in isolation in a small area and because of its poor powers of dispersal not managed to spread far. Another plant with an unexplained distribution is Bedstraw Broomrape, *Orobanche caryophyllacea*, which in Britain is found regularly at Sandwich Bay, in Kent. This plant is a parasite of Ladies Bedstraw, *Galium verum*, and Hedge Bedstraw, *Galium mollugo*, both common species almost everywhere, so the lack of host plant cannot explain its poor distribution. Broomrape seed is very small and does not disperse well, dropping close to the parent plants. It also needs very specific conditions to germinate. So perhaps it is one of those plants which is localised and rare, and always will be. Lundy Cabbage, *Coincya wrightii*, only grows on the island of Lundy, mostly on steep or vertical cliff faces or on flatter areas where it is protected from grazing. It is found nowhere else in the world. The numbers of plants varies markedly possibly because of weather conditions, and there are threats from over-grazing and the spread of invasive shrubs. In good years there are a few thousand plants. Apart from being very rare in its own right it also the only host of three equally rare beetles: the Bronze Lundy Cabbage Flea Beetle, *Psylliodes luridipennis*, the Blue Lundy Cabbage Flea Beetle, a wingless form of *Psylliodes napi*, and the Cabbage Leaf Weevil, *Ceutorhynchus contractus* var. *pallipes*. Grey Hair Grass, *Corynophorus canescens*, is a small but distinctive silvery grass mostly confined to sandy areas on the East Anglian coast with a small population in Lancashire and an inland colony in the Brecklands (inland sand dunes). It only grows in areas where sand is accreting, in areas of open vegetation. Seed germination is unreliable and it does not colonise new sites readily. However, given the number of active dune systems around the British coast its distribution is not readily explained.



*Orobanche
caryophyllacea*
Bedstraw Broomrape

Lowland mainland

A study of the distribution of plants shows that apart from key habitats there are also regional concentrations of rare plants. These regions often have a particular geology and/or habitat, which is different from other areas on Britain and thus support their special species. Variations in local climate must also play its part in some distributions.

The Breckland in East Anglia is home to several rare plants; it is very dry and exposed with cold winters and warm summers (the nearest to a true continental climate in Britain). The sandy light soils, varying from calcareous to acid, are ideal for a number of small plants such as Field Wormwood, *Artemisia campestris*, a small plant closely related to Mugwort, *Artemisia vulgaris*. It has only ever grown in the Brecks in short grassy places with some bare ground and disturbance. It is intolerant of rabbit grazing, so its existence can be rather precarious. Records of the plant date back to 1670 and there have only been 20 recorded locations. The Brecks are a classic area to find rare Speedwells including Spiked, *Veronica spicata* ssp. *spicata*, Fingered, *V. triphyllos*, and Spring, *V. verna*. Spanish Catchfly, *Silene otites*, is another plant associated with the light sandy soils and the area also supports the British endemic species: Perennial Knawel, *Scleranthus perennis* ssp. *perennis*, a species of open acidic sandy soils.

Moving south, the chalk areas of southeast England form another band of distinctive geology with their own characteristic species. The ranges of hills includes the Chilterns, Berkshire Downs, South Downs and North Downs with the limestone of the Cotswolds extending to the west. Of these ranges

the Chilterns is the least developed and still supports large areas of woodland and unimproved chalk grassland. The Chilterns supports a few special species, some of which grow nowhere else in Britain; most of these are strongly associated with the calcareous soils. The umbellifer Great Pignut, *Bunium bulbocastanum*, is confined to chalk soils and mostly grows in arable fields, rough or disturbed downland and similar habitats on road verges, quarries and track edges, mostly in Bedfordshire and Hertfordshire. It was first described in 1839 and is probably little changed in its distribution since its discovery. Box, *Buxus sempervirens*, is a very widely planted tree or shrub, but as a genuine native is rare. It grows on the calcareous soils of Southern England, including the Chilterns at Ellesborough in Buckinghamshire. In its native sites it is found on steep slopes with shallow soils, where other trees find it difficult to establish. Downy-fruited Sedge, *Carex filiformis*, grows in 12 locations in Britain, with a single colony in the Chilterns at Hartslock, Gatehampton. Like all sedges it is rather dull to the uninitiated and overlooked by the bulk of visitors to the site. The colony here is different from the other British sites in that it is the only one growing on steep chalk grassland. Elsewhere it tends to be in flatter richer grassland sites (e.g. at Otmoor). The Chilterns is rich in orchids, with numerous rare British species including the Red Helleborine, *Cephalanthera rubra*, in one of its three UK locations, in Buckinghamshire. The plant seems to prefer partially open Beech woodland with dappled light and can remain dormant for many years if conditions are not suitable. After the loss of several trees in strong winds, increased light from gaps in the canopy led to an increase in plant numbers and flowering success. The Chilterns is also famous for Monkey, *Orchis simia*, and Military Orchids, *Orchis militaris*. Historically these species were more widespread growing on the Berkshire Downs and North Downs. The Military Orchid also grew in Harefield in Middlesex where it was probably lost to over-zealous collecting. If it had survived this fate, it probably would have been lost to habitat change and development anyway. In the early part of the twentieth century the Military Orchid became extinct, only to be re-discovered in 1947 at Homefield Wood near Marlow. It is currently known from one other Buckinghamshire site and from a chalk pit in Suffolk where it was discovered in the 1950's (well outside its known range, and possibly originally introduced by man). The loss of the Military Orchid in the early twentieth century was down to several factors. Probably the most important of these being the loss of and/or change in the management of its woodland habitat. Collecting in small isolated localised sites would not have helped. The Monkey Orchid has a similar history, with its core range being more confined than the Military, mostly being found between Caversham and Goring on both sides of the Thames. The loss or improvement of its grassland habitat for agriculture or building led to its reduction to one site, Hartslock near Goring. The Monkey Orchid has a second area, Kent, which currently supports two sites. Kent also has long standing records, but is less well documented in collections than the Thames area which must have been its main stronghold. The Chilterns is one of the few places where the Ghost Orchid, *Epipogium aphyllum*, has been seen. This remarkable plant is unpredictable in its occurrence, and was first recorded in the nineteenth century in Shropshire, before being found in the Henley area in 1911, later re-found near Peppard in 1931 (by Vera Paul), and later still (early 1950's) in Buckinghamshire. Given its unreliability, it is still perhaps the most sought after plant, and still far from understood. There are hundreds of hectares of apparently suitable, deep litter woodland habitat. It can probably survive



Gentianella germanica
Chiltern Gentian

underground for many years and send up a flower spike when conditions are right. Other Chiltern specialities include Candytuft, *Iberis amara*, which is almost exclusively confined to the Chilterns. This is something of a puzzle because there is no reason why it should not grow equally well in disturbed chalky soils elsewhere in southern England. Similarly, the Chiltern Gentian, *Gentianella germanica*, is another plant not found on the chalk elsewhere in southern England. Where the Chiltern Gentian grows with Autumn Gentian, *Gentianella amarella*, the two species can hybridise and this has been put forward for the decline of the Chiltern Gentian. In my experience, where Chiltern Gentians are the dominant species their genes are capable of dominating the hybrid mix. Perhaps, outside their core range they cannot establish (even if they had more mobile seed) because the Autumn Gentian genes dominate. It is generally the case in the Chilterns that sites are either Chiltern Gentian sites or Autumn Gentian sites, not usually both. Perhaps the most puzzling plant of all is the Fringed Gentian, *Gentianella ciliata*, which was first



Gentianella ciliata
Fringed Gentian

found near Wendover in 1875. The Buckinghamshire plant was initially misidentified, then confirmed, later dismissed (by Druce in 1926) and then re-found in 1982. In this, its only site in Britain, is it a genuine native, or an introduction? (There have been two other records, from Surrey in 1910 (believed to be introduced) and Wiltshire in 1892.)

Other regions of the country also have their special plants, the New Forest has Wild Gladiolus, *Gladiolus illiricus*, Cheddar has its famous Pinks, *Dianthus gratianopolitanus*, and the Lizard in Cornwall its own unique flora. There are just too many for this article.

Some people travel around the country finding rare things, plants included, and once seen move onto the next "tick" without a single thought about the story behind the species, and worst of all any care for the place it is found or the plant itself. It is important not to hide the rare things away from the public gaze but it is essential to take care not to make them rarer still in our enthusiasm to see them "at home" and "in the flesh". For a real botanist or naturalist, the thrill of finding a plant that is normally only an illustration in a book must be one of the most exciting events. To find a brand new plant, or re-discover a long lost species, must be even better. I hope that this article has explained a little bit about why some things are rare. There is much that is still not known or understood, and plenty of scope for mere "amateurs" to contribute to the pool of knowledge.

GREEN PRUNING?

Margaret Notton

At the end of November our variegated Holly, 'Silver King', is usually covered in ripe berries. If I remember in time I pick some of the berried Holly in the last week of November to store in the garage for Christmas decorations. This is normally early enough to beat the thrushes and blackbirds. This year, 2001, I was pre-empted by another animal, Grey Squirrels.

One morning in the middle of October I saw that our neighbour's lawn was covered with twigs of variegated Holly. The Holly had no berries visibly attached. The berries on the bush at this time were unripened and quite pink. Careful observation of the Holly bush, which adjoined the neighbour's garden, revealed the culprits – two squirrels. The squirrels would climb up into the Holly bush, proceed out along a branch and chew off a length of the holly between 10 to 15 cm long. The squirrels then carried the Holly into the neighbour's garden, dug a small hole, stuffed some berries into the hole and then abandoned the stripped twigs. I did see the squirrels eating some of the berries whilst in the bush. Looking around our garden in the next few weeks, I found many Holly twigs stripped of their berries and nearby each twig was to be found some Holly berries roughly buried about 4 cm deep. Some of these finds were up to 30 m from the original Holly bush. By the beginning of November, our Holly bush had been almost completely denuded of berries even before the berries had fully ripened. The squirrels had also made a very good job of completely tip pruning the whole bush. No Holly berries for Christmas this year but no pruning of the Holly bush needed either!

In previous years Holly Blue butterflies have been seen laying their eggs and the larvae have been seen eating the flowers on this particular Holly bush. Unfortunately when pruning the Holly tips, the squirrels had removed the embryo flower buds, which would have been the food in the spring of 2002 of the Holly Blue butterfly larvae. Have squirrels ever been considered as a contributor to the population control of this butterfly? I shall certainly be carefully observing the presence of the Holly Blues in our garden this coming year. In the following years I shall also look out for Holly bushes appearing all over the garden. Does Ivy have a customer for Holly bushes?

THE WOODLAND OF MAIDEN ERLEGH PARK

Dr. A. M. Mannion & Ms. S. Peck, Department of Geography, University of Reading

Maiden Erleigh Park is located to the south of Reading between Beech Lane, Silverdale Road and Rushey Way (National grid reference SU750710). It comprises Maiden Erleigh Lake and approximately 10 hectares of woodland and grassland; these habitats are an important amenity asset for the residents in the Parish of Earley, District of Wokingham, Berkshire. Active management and conservation are the responsibility of Earley Town Council and the park is used not only for recreation but also for educational activities at primary, secondary and tertiary levels. The park has been the subject of research by the Department of Geography, University of Reading, notably in relation to lake and woodland development and environmental history. The results of this work, which deals with the age and history of both the lake and the park, have been reported in Berkshire's Rights of Way and Countryside Magazine, Green Ways, numbers 3 (1998) and 4 (2000).

The woodland is of particular interest because of the scarcity of deciduous woodland in England generally and because its age and origin remain unknown. Some 5000 years ago much of the southern region was covered in deciduous woodland comprising species which had migrated into Britain following the end of the last major ice advance c. 12,000 years ago. In the intervening millennia, Britain's familiar native Birch, Pine, Willow, Hazel, Elm, Ash, Lime and Alder established themselves in various proportions to produce a mosaic of broadleaved forest/woodland types. Later Beech and Hornbeam became established. Very little, and possibly none, of these communities have survived to the present day because land has been cleared for agriculture, mining, urban expansion etc. and because wood was widely employed for construction as well as iron ore smelting prior to the use of fossil fuels. At its peak, wildwood covered c. 60 per cent of Britain, so the landscape was very different to that of today.

Three of the four areas of woodland in Maiden Erleigh Park are classified as ancient woodland on the grounds that there is evidence for its presence since 1600AD. This does not, however, mean that woodland has been continuously present for the last 5000 years. Indeed, the evidence from pollen grains preserved in the sediments of Maiden Erleigh lake (Greenways No. 3) indicates that the present woodland developed in an area of open grassland though when this occurred is open to question.

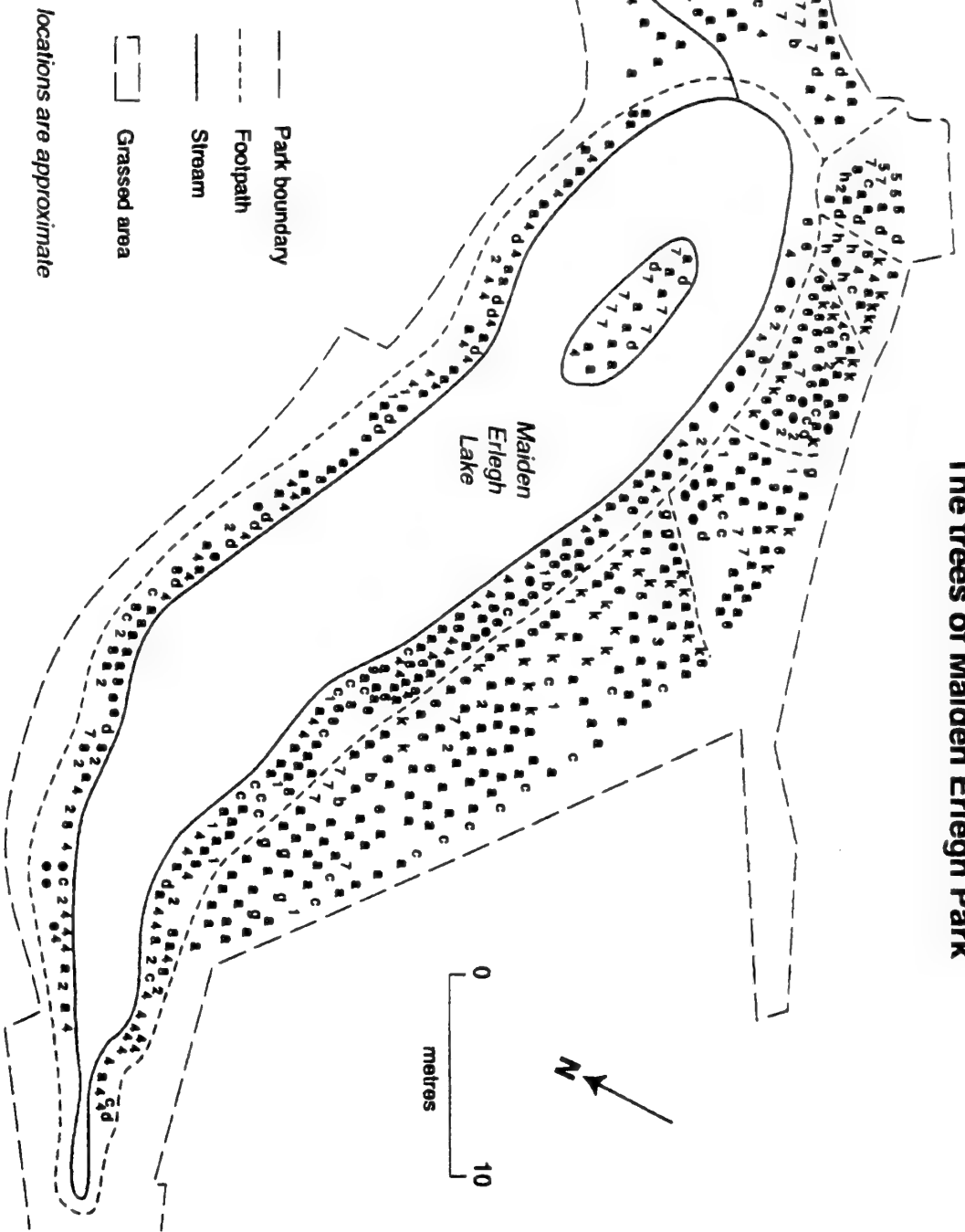
Today, Maiden Erleigh woodland is a component of Berkshire's area of ancient woodland. Only 3.2 per cent of the Royal County of Berkshire comprises ancient woodland and much of that is in Windsor forest of which Maiden Erleigh woodland may once have been a part. All of Maiden Erleigh woodland has been designated a County Wildlife Heritage Site and the entire park is designated as a site of Urban Landscape value. On a national basis, English Nature have given it the status of Local Nature Reserve. This level of protection reflects the park's heterogeneity of wildlife habitats and its value for conservation.

Much effort on the part of the Park Ranger Service has resulted in the compilation of a brief history of the park and descriptions of many of the plant communities present and management techniques. This information, as notes for students, is available from Earley Town Council although no map of the trees has ever been produced. As part of an ongoing project on the history of Maiden Erleigh park and its ecology such a map is now available. It is reproduced in the accompanying figure. It was produced by one of the authors (S. Peck) as part of a project to investigate the contribution of the various tree types to the pollen deposited on the surface of the lake sediment.

For the practical purpose of tree identification the map should prove useful for teachers and school and university students and for those who use the park for recreation and who wish to learn more about this amenity. As the map shows, the woodland is fairly dense and comprises 16 tree and shrub species all of which are native to the British Isles. Active management includes coppicing, involving pruning trees to just above ground level to encourage multi-stem growth without a canopy. This allows light to reach ground level where it encourages the growth of low-growing herbaceous plants, including orchids. In addition, the control of Sycamore and Rhododendron is necessary. These are introduced species which can become more successful than native species; they can be controlled by physical clearance. It must be noted that a number of dead trees have been left standing, as shown on the map. This is what would occur naturally with dead wood and dead trees providing habitats for a range of mosses, lichens and insects. It must also be noted that all types of vegetation, but especially trees because of their girth and longevity, are important stores of carbon. All plants use carbon dioxide from the atmosphere and water

The trees of Malden Erleigh Park

- 1 Field Maple *Acer campestre*
- 2 Sycamore *Acer pseudoplatanus*
- 3 Common Horse Chestnut *Aesculus hippocastanum*
- 4 Common Alder *Alnus glutinosa*
- 5 Silver Birch *Betula pendula*
- 6 Hornbeam *Carpinus betulus*
- 7 Common Hazel *Corylus avellana*
- 8 Common Hawthorn *Crataegus monogyna*
- 9 Common Beech *Fagus sylvatica*
- a Common Ash *Fraxinus excelsior*
- b Common Holly *Ilex aquifolium*
- c English Oak *Quercus robur*
- d Crack Willow *Salix fragilis*
- e Elder *Sambucus nigra*
- g Wild Service Tree *Sorbus torminalis*
- h Common Lime *Tilia vulgaris*
- k English Elm *Ulmus procera*
- Dead trees



locations are approximate

and nutrients from the soil to produce organic compounds. The sun's energy is captured as part of this process of photosynthesis and oxygen is produced as a result. Plants grow in this way and they store carbon which would otherwise remain in the atmosphere where it acts as a greenhouse gas. In the last 200 years the atmospheric concentration of carbon dioxide, and several other greenhouse gases, has increased considerably and is a major cause of global warming. Maiden Erlegh Park is helping to counteract the accumulation of carbon dioxide in the atmosphere in its own small way; so are all the urban trees in gardens and along roads. More trees and shrubs are needed to enhance carbon storage and to produce oxygen which is vital for almost all living organisms. Thus the message is to treasure parks like Maiden Erlegh and to plant trees wherever it is sensible.

SOME THOUGHTS ON FOOT AND MOUTH, AGRICULTURE AND THE FUTURE OF THE COUNTRYSIDE

Rod d'Ayala

There have been a lot of column inches written about the Foot and Mouth outbreak in the summer of 2001. Apart from detailed analysis of the cause of the outbreak and its spread – much has also been written about the effects (short and long term) and the overall state and future of British agriculture.

The most obvious effect on the Society was the truncation of the summer programme of walks and site visits. Although confirmed cases only reached the outskirts of the Society area, the general countryside was closed down and most of the visits between May and September had to be cancelled. This was unfortunate, but there is always next year!

What were the effects of the outbreak on the countryside? For good wildlife sites there was much speculation about the effects of animals being trapped on sites, or no grazing being possible because of the ban on animal movements. Only time will tell if there has been any long term damage to conservation sites, or species on them. For the bulk of the agriculturally improved countryside there would have been negligible harm done. Indeed, the forced absence of stock in some areas must have provided a welcome break for the over-grazed countryside. On sites managed for conservation, where grazing has either been missed or been far heavier than "normal" the break in routine management could in some circumstances actually be beneficial – I feel that "something different" is often a good thing. In the past, "traditional" management was not guided by fine-tuned scientifically researched management plans which specify the precise time of grazing and number of stock to be used. The countryside was not managed to look after wildlife; this was merely an accidental by-product of the systems and methods used. The different management regimes shaped the habitats in the countryside, and therefore the species found. The requirements of some species may be very specific and a change in management regime, such as that caused by the Foot and Mouth outbreak may be a problem. However, the majority of sites and species, even today with the massively reduced area of high value wildlife land, will happily cope with such variations. After all, they already have to cope with the vagaries of the British weather!

Post Foot and Mouth there has been a lot of debate about the future of the countryside, with at times a somewhat confused discussion about the role of agricultural intensification (a completely separate and unrelated issue to Foot and Mouth) and modern farming methods. In reality British farming has been changing for many decades, and usually for the worse in terms of the health and abundance of wildlife. The latest Foot and Mouth outbreak, if it has any damaging effect on the countryside, is one of many factors and in the main, only a minor one in comparison with others. The Common Agricultural Policy is generally blamed for the demise of the countryside, but in reality things were in decline before this. The drive to increase production resulted in the loss of small mixed farms, the ploughing or other improvement of wild flower rich meadows and downland, land drainage etc, etc. Creeping urbanisation, with the loss of countryside to rural or industrial development and the adoption of a "tidiness" approach to the countryside has also played its role. Compared to these Foot and Mouth pales into insignificance. It may be that in areas where all grazing animals have had to be destroyed that some farmers will not re-stock. However if this means fewer animals, given that most of the countryside is massively over-grazed, it may not be so bad. It is too glib and simplistic to blame one single policy, or cause, for the change in, or destruction of the countryside. It is said the future is to pay farmers to look after our

countryside and wildlife heritage – as much as, or in addition to, growing our food. Again this is also far too simplistic. Environmental farming schemes can, unless properly thought out and well targeted, do more harm than good. To make schemes workable, they usually need guidelines or rules, often designed to target certain species or habitats and how they are managed. These are often very prescriptive (for the ease of administration as much as for practical reasons), specifying that certain tasks be done at certain times of year. The management regimes are uniform and sometimes inappropriate. One of the main reasons why there is so much diversity in the British landscape, and why it was so wildlife rich was the *lack* of uniformity of management. Individual farmers and woodsmen, even in a small local area, would do things differently – for instance hay would be cut at different times – or not do things at all in some years or some places! Add to this the regional differences in geology, structure and climatic variation and you get a very varied landscape and management. It is not possible to apply simple universal solutions to such a complex countryside. Often, the efficient administration of schemes cannot cope with this complexity, leading to the danger of a more uniform countryside and the loss of diversity.

The British landscape is currently almost entirely managed, and has been for a very long time. The diversity of landscape produced by the different types of agriculture and woodland management has been the main factor in its historical development. What is missing over much of Britain, especially in the lowlands, is true wilderness areas completely unmanaged by man. However, we live on a small island with too many people, and surely there is no room for this? Perhaps the future lies in an extremely efficient agricultural system on the most fertile land, with more marginal areas contributing to this production system where possible but mostly maintaining a rich cultural and wildlife heritage? Some, or all, of the “unproductive” land should be abandoned to nature. A two-tier landscape, i.e. either managed or unmanaged, would be too simplistic, consigning the most productive agricultural areas to a future of wildlife and environmental sterility. Decisions need to be made on what kind of landscape we want, not just now but 100, 200, 300 years (and beyond) from now! Heavily subsidised areas of marginal agricultural land could be abandoned to nature. If areas were large enough, over time, there would be scope to re-introduce some of the long-lost species such as Wolf and Wild Boar. Other countries manage to support such areas; they are called National Parks. (We, of course, have National Parks too, but being such a heavily managed country, ours have a different remit and character.) This would lead to a dramatic change in some areas. For example, the removal of thousands of sheep from the Grouse Moors and the re-adoption of a natural regime would mean less Heather (a beautiful but entirely artificial monoculture). Would this be a bad thing? Natural vegetation with more trees that is maintained by wild grazing animals would be much more diverse. Large areas of Scotland are completely uninhabited, and others very poor marginal farming land or rough grazing, often massively over-stocked by domestic sheep and other animals (including deer). A few wolves would soon sort this out! These sorts of areas could still earn an income e.g. from enhanced tourism. I also think it is quite possible to have relatively small areas left to manage themselves (throughout the whole of the country), as well as the large designated “National Parks”. It may take many years to establish these areas, and some work would be needed to remove the heavier influences of man before they could be truly said to be wild again. However, it is not impossible!

Given the agricultural nature of Britain, agriculture is still relevant. However, the current countryside is a shadow of its former self, an increasingly tidy and manicured place, with large sprawling areas of agricultural and urban “deserts” – with the wildlife confined to ever decreasing rough corners. Some familiar species are dying out, and will continue to do so, while others (those that can cope) will do better. There has always been change but the rates of change are so much faster, with more losses than gains. Do we want to hark back to a bygone era and re-create a landscape from the past (if so, what era?), or set a new agenda where some areas of the landscape and wildlife are in charge of their own destiny? We will probably be best served by maintaining a mixed landscape, with areas of environmentally conscious and efficient agriculture, less productive marginal areas with more and different wildlife interest (old fashioned traditional farming) and other areas left entirely to their own devices. But, are we capable of forgetting our desire to control and manipulate our world, and rely on its ability to look after itself?

During the Foot and Mouth outbreak, when there were no visitors to the countryside I remained resident at the Warburg Reserve. During this period, the effect people have was very noticeable – in the absence of *Homo sapiens* other animals and birds became much less cautious and wary. The enforced absence of people also emphasised the lack of places, in my bit of southern England at least, truly dedicated to

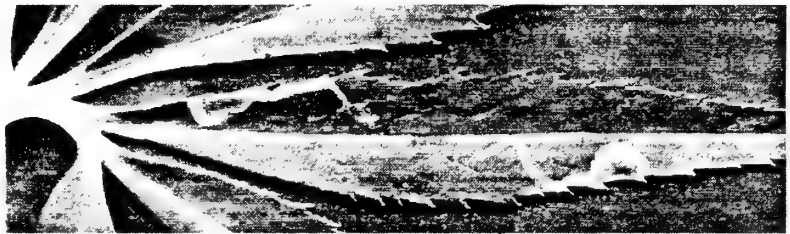
landscape and wildlife – to unfettered wildness. If the “Foot and Mouth crisis” encourages these sorts of changes to our countryside, then more will have been gained than lost. However, is anybody brave enough to do what is necessary to actually change the current system for the better? Some changes are happening, for example the moves by the Environment Agency to employ river floodplains in their flood defence schemes (with positive benefits for wildlife and water supplies), rather than create yet deeper and straighter rivers i.e. returning to the “natural solution” from the clever man-made system. Given enough time, when the errors of our ways become obvious to more people, a more co-ordinated approach may happen. But don't hold your breath!

A NEW LEAF-MINING FLY – *Phytomyza hellebori*

Malcolm Storey

At the end of 1999 Alan Stubbs found leaf-mines on the dark green over-wintering leaves of Stinking Hellebore (*Helleborus foetidus*) in his garden in Peterborough (Stubbs 2000). Insects that mine leaves are usually restricted to a single host plant or group of related plants, so Alan expected identification to be straightforward. However, when he consulted his books, there were no known leaf-miners on this plant in Britain. Turning to the continental literature he found that *Phytomyza hellebori* was the only insect known to mine Stinking Hellebore. A nearby wild colony of the plant had leafmines too. There have since been records from Herts, Surrey (Stubbs 2000) and Kent (Philp 2001).

Just after Christmas in my father's garden in Thatcham I found leaf-mines on Stinking Hellebore leaves that precisely matched Alan's drawing. This is apparently the first Berkshire record. As with the *Leccinum* in my following article, one is left



Phytomyza hellebori Two leafmines on Stinking Hellebore

wondering whether it is a new arrival or whether it has just been overlooked. I checked the Hellebores last winter and failed to find it, so it looks like a recent arrival, but if anybody has old photographs of Stinking Hellebore it would be most interesting to see if the characteristic mines are visible.

References

- Stubbs, A. (2000) The Hellebore leaf-miner *Phytomyza hellebori* Kaltenbach (Diptera, Agromyzidae) new to Britain, *Dipterists Digest (Second Series)* 7(1) 33-35
Philp, E.G. (2001) in BENHS Indoor Meetings, *Br. J. Ent. Nat. Hist.* 14(2) p125

JOTTINGS FROM A FAMILY'S ARCHIVES – II

Cradle Naturalist – Caversham

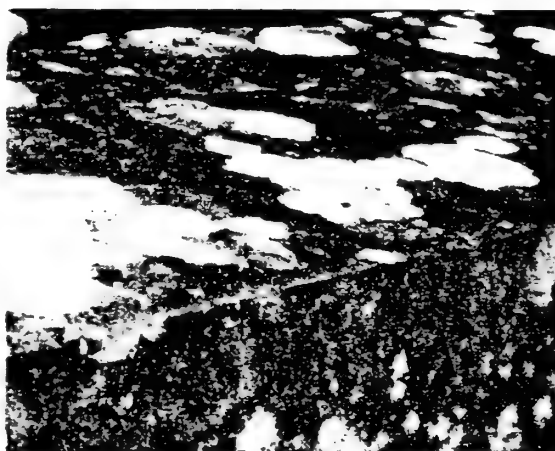
When a fellow member of the Hertfordshire Natural History Society wrote my father's obituary in 1962, she said, among other things, that he was a "great encourager of the young". This was quite true. As young children we were encouraged in all things natural history, perhaps I wish now that I had tried a bit harder with fungi! Pond dipping was my great interest for several years. We went on walks down Hertfordshire lanes (in those war years, no cars!) and learnt to identify most of the common wild flowers. Later, I helped my father plan NH excursions into the local countryside. Little did I realise that this would come in handy over, 50 years later! My father examined cubs, scouts and guides for their naturalists and observers badges. It was another joke at home that he never failed anybody. Maybe this had a purpose as well. Are some of those now grown up scouts and guides lingering, in their middle to older age, in NH societies up and down the country? Who knows? We can only hope so.

THE BOWEN COLLECTION OF LICHENS AT READING MUSEUM

David Notton, Reading Museum and Archive Service
Curator of Natural History

Lichens are perhaps one of the more fascinating but little studied groups of organisms; an intimate symbiosis of fungus and alga, often found encrusting stones and bark; slow growing but tenacious and able to live in harsh and extreme conditions. The following note is intended to mark the sad death of local botanist and society member Humphrey Bowen and to alert students to the existence of an important and locally significant collection of lichens, made by him, which is now held by Reading Museum Service.

The collection comprises approximately 1000 packets of lichens of all genera, collected by Humphrey during the 1960s–70s, in the years following the publication of the *Flora of Berkshire* (Bowen, 1968) and donated to the museum in the 1970s. The lichens are mainly from Berkshire and Oxfordshire, but include some from Dorset and localities further afield such as Shetland. A number of indicator species of ancient forest sites such as Windsor Forest are represented. All specimens are meticulously labelled with species identification, locality, grid reference, date and habitat. Some specimens have details of chemical tests carried out in order to confirm identifications. The whole collection is arranged alphabetically by genus and species for easy reference. Further information on selected species in the Thames Valley may be found in Bowen (1969) and details of ancient forest indicator species in Berkshire, Buckinghamshire and Oxfordshire may be found in Bowen (1976). More of Humphrey's lichens including non-British specimens are held at the Reading University Herbarium (anon, 2001a & b; <http://www.herbarium.reading.ac.uk/>).



Lichens growing on the stone capping of a wall near Blake's Lock, Reading

The Bowen lichen collection at Reading Museum may be examined by appointment, please contact the curator for details.

References

- Anon. 2001a. Humphrey Bowen : Professional chemist whose passion was for botany, and who documented the flora of both Berkshire and Dorset. *The Times* 28 August 2001, p. 15.
- Anon. 2001b. Humphrey Bowen : Chemist who also recorded the flora of two English counties. *Daily Telegraph* 5 Sept. 2001, p. 23.
- Bowen, H. J. M. 1968. *The Flora of Berkshire*. Holywell Press, Oxford. Pp 1-389.
- Bowen, H.J.M. 1969. Lichens in the Thames Valley. *Reading Naturalist* 22: 29-31.
- Bowen, H.J.M. 1976. Indicators of old forest : The Presidential address to the Reading and District Natural History Society 16th October 1975. *Reading Naturalist* 29: 2-8.

Photograph: Copyright © 2001 Museum of Reading

JOTTINGS FROM A FAMILY'S ARCHIVES – III

Cradle Naturalist – Caversham

My father was quite a good bird watcher, but, like the rest of us, he sometimes failed in identification. Maybe it was over one of those LBJ's! If he became absolutely stuck, he would dismiss it all saying "It's a blue tit eagle!" "Blue tit eagle" was a standing joke for years in our family. Then one day, long after my father's death, I found out that somewhere in the world there is a blue tipped eagle! I can't ask my father now, but was he having a private joke at our expense all those years ago? Knowing my Dad, I think it quite likely.

A NEW TOADSTOOL – *Leccinum cyaneobasileucum*

Malcolm Storey

When I first became interested in fungi, there were 45 species of *Boletus* in Britain (Dennis, Orton & Hora, 1960). In 1970, Volume 1 of the *British Fungus Flora* (Watling, 1970) pushed the total to 60 species, including *Leccinum* (13 spp) and *Suillus* (10 spp), now separated from *Boletus*. More recently, a monograph of European *Leccinum* species (Lannoy and Estades 1995) gave 36 species of *Leccinum* alone. Back in the UK, the first issue of *Field Mycology* included "A User-friendly key to the Genus *Leccinum* in Great Britain" (Kibby, 2000) with 35 *Leccinum* species. So what's been happening? Has evolution really been so rapid...? Well, no. The additional species come from three sources:

- "splitting" of previously known species
- new arrivals to this country
- hitherto overlooked species

By far the most fertile source of new species is "splitting". This is where further study shows that what was thought to be a single, perhaps rather variable, species actually consists of a group of forms, each with consistent characteristics and often a distinct ecology. Several of the 1960 species were very variable: *Boletus chrysenteron*, *B. subtomentosus*, and *Leccinum scabrum* come to mind and these have each been split into a handful of new species.

Hitherto overlooked species are difficult to distinguish from new arrivals. A distinctive new fungus is reported, but how can you tell whether it is a new arrival or just something that has been long overlooked? The main way is to check preserved material in collections and examine photographs; otherwise it's down to subjective assessment based on how noticeable and distinctive the species is.

This brings me to the subject of the article: last autumn, in the parking area at Wellington Country Park, we found a large pale *Leccinum* with flesh that turned strongly green an hour or so after being cut. (Flesh colour changes in *Leccinum* often take an hour or two and can be missed if you don't wait long enough). It didn't match anything in Geoffrey Kibby's key, but a phone call to Geoff named it as *Leccinum cyaneobasileucum*. The first British record was in Northern Ireland in 1999 and it has also been found in Kent, Wales, Oxfordshire and now North Hampshire.

The species was originally described by Lannoy and Estades in 1995 and has one of their tongue-twister species names. (They also gave us *L. brunneogriseolum* for the commonest split from the old *L. scabrum*!) *L. cyaneobasileucum* is said to be quite common now in France, generally associated with Birch. The results of examination of herbarium material will be interesting, but it is hardly likely that such a striking toadstool, up to 15cm (6") tall, could have gone unnoticed. Presumably it is a recent arrival, but where from?



Leccinum cyaneobasileucum

References

- Dennis, R.W.G., Orton, P.D. & Hora, F.B. (1960) New Check List of British Agarics and Boleti, *Suppl. Trans. Brit. Mycol. Soc.* **43**
- Kibby, G. (2000) A User-friendly key to the Genus *Leccinum* in Great Britain, *Field Mycology* 1(1) Pp.20-29
- Kibby, G. (2002) Fungal Portrait. No 9: *Leccinum cyaneobasileucum*, *Field Mycology* 3(1) Pp.20-29
- Lannoy, G. & Estades, A. (1995) *Monographie des Leccinum d'Europe*, Féd. Myc. Dauphiné-Savoie, France.
- Watling, R. (1970) Boletaceae, Gomphidiaceae, Paxillaceae. *British Fungus Flora Agarics and Boleti*, **1**, HMSO.

RECORDER'S REPORT FOR BOTANY 2001

Janet Welsh

A thin year for records with the closure of footpaths and reserves due to foot and mouth disease. However a few people made contributions from urban habitats and disturbed sites as well as the more traditional habitats.

As ferns seem to be rather under-recorded around Sonning Common I have been making a special attempt to look for these when out walking. This has paid off with many new finds in our local woods. One or two old records are included especially where expert confirmation has been obtained. The ferns on the bridges at Sonning make an interesting study in distribution with four species confined to distinct zones.

Sedges, often an indication of good habitat, are not often submitted by members. Those I have included are some of the apparently less common species.

One plant topic which seems to have been recurring in the literature for the last few years is the subject of aliens, particularly aquatic aliens, or using the new terminology, neophytes. Some of these are extremely invasive and 'escape' from garden ponds either by natural or other means. Those I found locally are Curly Waterweed *Lagarosiphon major*, Parrot's-feather *Myriophyllum aquaticum*, both in a new pond on Kingwood Common (which were weeded out) and in Crays Pond, and New Zealand Pigmyweed *Crassula helmsii* at Thames Valley Park and Dinton Pastures. Please inform Plantlife if these species are spotted for sale in garden centres.

Alien species are marked *.

Bryopsida (Mosses)

Climacium dendroides

7/5/01 Headley Gravel Pit, in clearing. (MWS)

Platygyrium repens

24/2/01 Moor Copse Reserve. On Ash trunk in Hogmoor Copse, west of bridge, numerous small branchlets loose on surface. (SL, MWS)

Pogonatum aloides var. *minimum*

17/2/01 Bucklebury Lower Common, on rootplate of felled birch. (MWS)



Pogonatum aloides var. *minimum*

Hepaticae (Liverworts)

Reboulia hemisphaerica

18/3/01 Upper Bucklebury, on west-facing roadside bank of Briff Lane between the houses

Trewithen and Orchard Gate. (MWS) First recent record for Berkshire (Arborfield 1945).



Reboulia hemisphaerica

Pteropsida (Ferns)

Adiantum capillus-veneris Maidenhair Fern

27/11/01 An old record in Bowen's Flora. Many small tufts seen only on the west-facing side of the Sonning Bridge and has not yet spread to the Oxfordshire side of the bridge. Is there a change in the mortar perhaps? (JW)

Phyllitis scolopendrium Hart's-tongue

27/11/01 Many small tufts on the east-facing side of Backwater Bridge, Sonning. (JW)

Asplenium adiantum-nigrum Black Spleenwort

27/11/01 West-facing side of Backwater Bridge, Sonning. Oxon. (JW)

Asplenium ruta-muraria Wall-rue
27/11/01 West-facing side of Sonning Bridge,
Oxfordshire side only. (JW)

Athyrium filix-femina Lady Fern
12/8/01 Hammonds Wood, Checkendon - near
the bridleway. (JW)
12/8/01 Wood at Berins Hill (JW)

Polystichum aculeatum Hard Shield-fern
1999 Cornwell Copse, Tilehurst. Abundant along
the stream bank in heavy clay. (JW)
This has been confirmed by Alison Paul, Curator
at the Natural History Museum.

Polystichum setiferum Soft Shield-fern
22/7/01 Small plant on the wood bank, Ashley
Hill. (JW) Both shield ferns are uncommon in our
area.

Dryopteris affinis Scaly Male-fern
4/6/01 Woodbank in Gillsmithers Wood. (JW)
5/6/01 Beech woodland at Ipsden Heath. (JDW)
15/7/01 Beech woodland at Berins Hill, locally
abundant. (JW)
Clive Jermy also confirmed that we have both
subspecies of this fern in the locality, ssp. *affinis*
from Gutteridge Wood and spp. *borreri* from
Nettlebed Woods (see earlier reports).

Magnoliidae (Dicotyledons)

Ranunculus flammula Lesser Spearwort
3/12/01 In flower and many seedlings in an
overgrown pond in New Copse. (JW)
Local in south Oxfordshire and declining with
drainage and eutrophication. Few records in our
area.

Saxifraga tridactylites Rue-leaved Saxifrage
12/5/01 Newbury, 100s of tiny plants in gravel
beside Sainsbury's roundabout. (MWS)



Lythrum hyssopifolium
Grass-poly

Most records are
from walls or the
commons.

Lythrum
hyssopifolium
Grass-poly
10/7/01 Cholsey.
RDB species
occurring in ruts in
an uncultivated
field corner near
the Thames. 620
plants were
mapped and
counted, a very
high number

compared with previous recent years. (Rd'A)
One of only 6 sites in the country (plus two in
Jersey), the largest population being at
Slimbridge, Glos. This annual species likes
seasonally flooded habitats and requires
disturbance; germinates in the spring.

Lathyrus linifolius Bitter-vetch
4/6/01 Steep banks between Redhill and
Gillsmithers Woods. About 40 straggly plants,
only one flowering. (JW) A rare plant in Oxon,
where there is a cluster of records in the
Chilterns. Brambles were cut back to increase
light to the plants.

Trifolium striatum Knotted Clover
24/6/01 Greenham Common, opposite the
entrance to the Bomb Dump car park. In fruit.
(MWS) Local in Berks, on dry, acid grassland.

**Navarretia squarrosa* Skunkweed
7/2001 Greenham Common SSSI. (PB)
This North American native in the Jacob's Ladder
family (Polemoniaceae) has 9-12mm blue to
purple tubular flowers in shiny pincushion-like
clusters. Glandular hairs have a strong skunky
odour. The pinnate leaves are broad and shiny.
The simple or moderately branched plant can
reach 0.4m tall. Clement and Foster give it as a
casual in gardens probably from bird-seed,
persistent in quantity in a tree nursery in Windsor
Great Park.

Stachys officinalis Betony
11/8/01 Behind the church in Checkendon. (JW)



Misopates orontium
Lesser Snapdragon

3 / 1 2 / 0 1
Roadside bank
by Wyfold
Wood. (JW)

Misopates
orontium
Lesser
Snapdragon
25/8/01 Upper
Bucklebury,
recently cleared
ground at gravel
extraction site.
(MWS)

Scabiosa columbaria Small Scabious
11/8/01 Chalk grassland below Berins Hill. (JW)
Rarely recorded in our area.

Gnaphalium sylvaticum Heath Cudweed
8/01 Greenham Common. A good colony on the
southern side of woodland on the northern side
of the common. (PB) Probably decreasing - few
records only.

Petasites hybridus Butterbur

17/4/01 Sheffield Bottom Lock on the Kennet and Avon canal. (KG) Most Society records are from the canal.

**Galinsoga parviflora* Gallant Soldier

2001 At the base of a low wall in Chatham Street, Reading. (HL)

Liliidae (Monocotyledons)

Cyperaceae (Sedges)

Carex muricata ssp. *lamprocarpa* Prickly Sedge

12/9/01 Dry acid grassland in Crowsley Park. (JW)

Carex divulsa ssp. *divulsa* Grey Sedge

11/6/01 Roadside by Withy Copse. (JW)

Carex disticha Brown Sedge

5/7/01 Marsh at Dinton Pastures. (JW)

Carex ovalis Oval Sedge

28/6/01 Locally frequent in dense tufts in damp grassland at Dinton Pastures. (JW)

11/6/01 Damp patch in acid beech woodland in New Copse. (JW)

Carex pallescens Pale Sedge

5/7/01 Scrub edge in marsh at Dinton Pastures, two tussocks only. (JW)

Carex pilulifera Pill Sedge

11/6/01 Acid beech woodland in New Copse. (JW) Also in Old Copse.

Poaceae (Grasses)

Briza media Quaking-grass

12/8/01 Chalk grassland Berins Hill. (JW) Few records outside reserves.

Polypogon monspeliensis Annual Beard-grass

15/7/01 Greenham Common, pond east of the control tower. (MWS, CAS) A species typically associated with coastal habitats now frequently found as a casual on waste ground. Our fourth record.

Hordelymus europaeus Wood Barley

12/8/01 Along the old bridleway through Hammonds Wood, Checkendon (A long known locality) (JW) The Chilterns are a stronghold for this Nationally Scarce species.

**Setaria viridis* Green Brittle-grass

30/10/01 Homebase carpark, Reading. In a shrub bed with flax, presumed to be a sowing of bird-seed. Confirmed by T.B. Ryves. (JW)

Orchidaceae (Orchids)

Dactylorhiza fuchsii Common Spotted-orchid

17/6/01 Field East of Broomhill Copse, on old dumped clay from building the M4. (MWS)

Dactylorhiza fuchsii x *praetermissa* (*D. grandis*)

17/6/01 Field East of Broomhill Copse, on old dumped clay from building the M4. Flowers combining the background colour of *D. praetermissa junalis* with the shape of *D. fuchsii*. (MWS)



Dactylorhiza praetermissa var. *junalis*
Leopard Orchid

Dactylorhiza praetermissa var. *junalis* Leopard Orchid

17/6/01 Field East of Broomhill Copse, on old dumped clay from building the M4. (MWS)



Ophrys apifera Bee Orchid

Ophrys apifera Bee Orchid

6/01 A good colony of about 100 plants on the southern side of Greenham Common. (PB)

Spiranthes spiralis Autumn Lady's-tresses

8/01 Hundreds to thousands of plants on the northern and southern sides of woodland on the north side of Greenham Common. (PB) Few recent records for this plant.

NOTE All names are after Stace (1997).

* introduced species

CONTRIBUTORS

Thanks to the following for their contributions:-

Rod d'Ayala (Rd'A), Peter Brough (PB), Ken Grinstead (KG), Hilda Lambden (HL), Séan O'Leary (SL), Christine Storey (CAS), Malcolm Storey (MWS), Janet Welsh (JW), Jerry Welsh (JDW)

The records from Dinton Pastures are given with permission from Wokingham District Council.

REFERENCES

- | | |
|--|---|
| Bowen, H.J.M. (1968) | The Flora of Berkshire |
| Clement, E.J. and Foster, M.C. (1994) | Alien Plants of the British Isles. |
| Killick, J., Perry, R., Woodall, S. (1998) | The Flora of Oxfordshire |
| Stace, C (1997) 2nd Edition | The New Flora of the British Isles |
| Stewart A. et al. (1994) | Scarce Plants in Britain. |
| Wigginton M.J. (1999) 3rd Edition | British Red Data Book of Vascular Plants. |

THE NEW BERKSHIRE FLORA

Malcolm Storey

Prof Mick Crawley's new "Flora of Berkshire" is now unlikely to be published before 2003. There will be an up to date account of the Flowering Plants, Ferns and Conifers of vice-county Berkshire (which includes much of modern Oxfordshire) as well as more detailed entries for the Bryophytes and Fungi (including Lichens) than in Bowen's 1968 Flora.

RECORDER'S REPORT FOR MYCOLOGY 2001

Alan Brickstock

With most of our forays this year, fungi were very sparse, with normally common families such as *Lactarius*, *Mycena* and *Russula* being scarcely represented. The mid part of what we used to regard as 'the usual season' was particularly bad in this respect.

Earth Stars continue to appear at Sulham in places where I have not found them before. On October 31st there were 32 *Geastrum triplex*, forming almost a complete ring round a Holly tree, and close by segments of another ring with 22 *Geastrum triplex* and 2 *G. sessile*, round and under a Hawthorn and Privet clump. Interestingly, both of these rings were where two or three Birds-nest Orchids usually appear! Probably pure co-incidence, or is it?

Other records at Sulham included half a dozen large specimens of *Volvariella speciosa* in a field edge on October 24th.

A new species for my garden this autumn was *Cystoderma amianthinum*, which appeared in considerable numbers round a large apple tree.

There were clusters of very large specimens of *Lactarius vellereus*, not a species I see too often, in rough grassland at Burghfield gravel pits.

A trackside near Ufton Nervet on August 22nd had a fine group of the uncommon Bolete, *Xerocomus rubellus* (= *Boletus sanguineus*), a strikingly Blood-red species.

The total number of species recorded in 2001 in the Reading Area at present stands at 376, rather below my average over the years 1993 to 2000 of 450, although there will no doubt be more late-comers!

Some of the more interesting species are listed below:

GILL FUNGI

Camarophyllopsis micacea (Berk. & Br.) Arnolds
Greenham Common, 12 Oct 01 (MWS)

Collybia racemosa (Pers.:Fr.) Quèl.
Hartshill Copse, 9 Sep 01 (MWS)
A strange looking fungus, the stipe bearing small lateral outgrowths, each with an aborted cap.

Collybia succinea (Fr.) Quèl.
Thatcham, on bark chippings on flower beds. 8 Nov 01 (MWS). Bark chippings are always a good place to search!

Collybia tuberosa (Bull.:Fr.) Kummer
Bucklebury Common, 1 Sep 01 (MWS)
Tiny white fruitbodies, the stipe arising from a black sclerotium.

Coprinus martinii Favre ex P.D.Orton
Headley Gravel Pit, 7 May 01 (MWS)

Coprinus pseudoniveus Bender & Uljè
Greenham Common, on cow dung, 24 Nov 01 (MWS)

Crepidotus cesatii (Rabh.) Sacc.
Wokefield Common 'Frog Pond', 9 Sep 01 (AB/JW) Similar to *C. variabilis*, growing in damp woodland.

Cortinarius largus Fr.
Holly Wood, 3 Oct 01 (MWS)

Cystoderma granulorum (Batsch:Fr.) Fayod
The Lookout, 28 Oct 01 (AB)



Hebeloma radicosum

Hebeloma radicosum (Bull.:Fr.) Ricken
Bucklebury Upper Common, 24 Sep 01 (MWS)
Has a tapered, deeply rooting stipe which is said to arise from the burrow of a small mammal.

Hypholoma capnoides (Fr.:Fr.) Kummer
The Lookout, 28 Oct 01 (AB)

Inocybe lanuginosa (Bull.:Fr.) Kumm.
Wokefield Common 'Frog Pond', 9 Sep 01 (GC)

Lactarius acris (Bolton) S.F.Gray
Warburg Reserve 14 Oct 01 (AB) A whitish species whose flesh and abundant white milk become, almost instantly on handling, a striking bright pink.



Lactarius citriolens

Lactarius citriolens Pouzar
Bomb Dump, 29 Sep 01 (MWS)

Lepiota aspera (Pers. in Hofm.:Fr.) Quèl.
Sulham Woods, 20 Oct 01 (AB)

Lepiota griseovirens R. Mre.
Sulham Woods, 20 Oct 01 (AB) The brown cap and stipe base have dark greenish-grey scales. Flesh flushed orange.

Leptonia euchroa (Pers.:Fr.) Kumm. (= *Entoloma euchroum*)
Warburg Reserve 14 Oct 01 (AB) Cap, gills and stipe are a striking violaceous blue. Gills sometimes paler, but always with a bright blue edge. Grows on wood, especially Alder.

Melanophyllum haematospermum (Bull.:Fr.) Kreisel
Bomb Dump, 29 Sep 01 (MWS) Gills are pink, becoming a dark vinaceous red.

Mycena crocata (Schröd.:Fr.) Kummer
Sulham Woods, 20 Oct 01 (AB)

Paxillus panuoides Fr.
Whiteknights, 28 Oct 01 (IB)

Pleurotellus graminicola Fayod
Pamber Forest, 10 Nov 01 (JW)

Psathyrella piluliformis (Bull.:Fr.) Orton
Windsor Great Park, 20 Oct 01 (PEC);
Pamber Forest, 10 Nov 01 (JW)

Resupinatus applicatus (Batsch:Fr.) S. F. Gray
Whiteknights, 20 Mar 01 (PEC);
Windsor Great Park, 20 Oct 01 (PEC)

Russula amara (=caerulea) Kucera
Wildmoor Heath, 30 Sep 01 (AB)

Russula luteotacta Rea
Wokefield Common, 9 Sep 01 (AB/JW)

Russula velenovskyi Melzer & Zvara
Bomb Dump, 30 Sep 01 (MWS)

Simocybe centunculus (Fr:Fr.) Watling
Windsor Great Park, 20 Oct 01 (PEC)

BOLETI

Leccinum cyaneobasileucum Lannoy & Estades
Wellington Country Park, 27 Oct 01 (MWS)
First recorded in the British Isles in 1999, in N. Ireland. Since found in sites in Hants., Kent, Oxfordshire and N. Wales. See article on page 21 and **Fungal Portraits** by Geoffrey Kibby in *Field Mycology*, Jan. 2002

Tylopilus felleus (Bull:Fr.) Karst
Pamber Forest, 10 Nov 01 (PEC/JW) Pink pores make this a distinctive species.

Xerocomus rubellus (Krombh.) Quél. (= *Boletus sanguineus*)
Ufton Nerve 22 Aug 01 (AB) An uncommon species, a striking blood-red colour throughout.

APHYLLOPHORALES

Creolophus cirrhatus

Creolophus cirrhatus (Pers:Fr.) Karst.
The Lookout 28 Oct 01 (AB)

Diplomitoporus lenis
Windsor Great Park 20 Oct 01 (PEC)

Hymenochaete corrugata (Fr.) Fr.
Pamber Forest, 10 Nov 01 (PEC/JW)

Hyphodontia barba-jovis
Pamber Forest, 10 Nov 01 (PEC/JW)

Megalocystidiellum lactescens
Pamber Forest, 10 Nov 01 (PEC/JW)

Phanerochaete filamentosa (Berk. & Curt)
Burdsall
Windsor Great Park, 20 Oct 01 (PEC)

Phellodon confluens (Pers.) Pouz.
The Slade, 24 Sep 01 (MWS)

Pulcherricium caeruleum (Fr.) Parm.
Sulham, various dates (AB)

Sarcodon imbricatum (L.:Fr.) Karsten
Near The Lookout, 20 Oct 01 (MW)

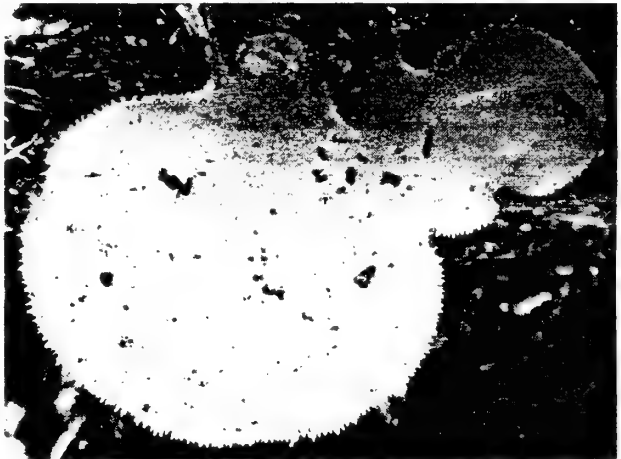
Tomentella sublilacina
Windsor Great Park, 20 Oct 01 (PEC)

GASTEROMYCETES

Geastrum sessile (Sow.) Pouz.
Sulham 31 Oct 01 (AB) See text

Geastrum triplex Junghuhn
Sulham 31 Oct 01 (AB) See text

HETEROBASIDIOMYCETES



Pseudohydnum gelatinosum

Pseudohydnum gelatinosum (Scop:Fr.) Karst
Wellington Country Park, 27 Oct 01 On pine stump in the Car Park (MWS)

ASCOMYCETES

Chaetosphaerella phaeostroma
Windsor Great Park, 20 Oct 01 (PEC)

Diatrypella favacea
Pamber Forest, 10 Nov 01 (PEC/JW)

Epichloe typhina (Pers:Fr.) Tul.
Dinton Pastures, 20 May 01 (SC)
'Choke Disease'. Forming yellow coatings on grass stems. Identified by Sandra Conn. Although nearly every stem in one area had one patch about an inch across, none had more than one!

Eutypa spinosa (Pers.) Tul. & C. Tul
Sulham, 21 Jan 01 (PEC/MWS)
Whiteknights, 20 Mar 01 (PEC)

Eutypella scoparia
Windsor Great Park, 20 Oct 01 (PEC)

Hypocrea pulvinata Fuckel
Sulham, 21 Jan 01 (PEC/MWS)



Hypomyces cervinigenus

left: infection coating *Helvella lacunosa*
above: chlamydospores (microscopy)

Hypomyces cervinigenus Rogerson & Simms
(=*Mycogone cervina*)
Bomb Dump, imperfect stage, on *Helvella lacunosa*, 29 Sep 01 (MWS)
Wokefield Common, 9 Sep 01 (AB/JW)

Hypomyces chrysospermus Tul. & C. Tul.
(=*Apiocrea chrysosperma*)
Wokefield Common 9 Sep 01 (AB/JW)

Hypomyces lateritius (Fr:Fr.) Tul. & C.Tul.
(=*Peckiella lateritia*)
Hartshill Copse, imperfect stage, on *Lactarius deliciosus*, 9 Oct 01 (MWS)

Hypomyces papulasporae Rogerson & Samuels
Greenham Common, imperfect stage, on Earth Tongue (*Geoglossum*), 28 Oct 01 (MWS)

Hypomyces spadiceus Fr. ex Th. Fr
Bomb Dump, imperfect stage, on aborted gills of *Lactarius torminosus*, 21 Oct 01 (MWS)
This is a species which hinders gill formation.

Hypomyces stephanomatis Rogerson & Samuels
Greenham Common, imperfect stage, on *Humaria hemisphaerica*, 9 Sep 01 (MWS)

CONTRIBUTORS

Alan Brickstock and Reading Fungus Group members (mainly the latter!) (AB), Sandra Conn (SC), Paul Cook (PEC), Gordon Crutchfield (GC), Malcolm Storey (MWS), John Wheeley (JW)

Lachnum virgineum
Wokefield Common, 9 Sep 01 (AB/JW)

Lyphodermium pinastri
Pamber Forest, 10 Nov 01 (PEC/JW)

Mollisia ligni (Desm.) Karst.
Windsor Great Park, 20 Oct 01 (PEC)

Orbilbia delicatula (P.Karst.)P.Karst
Wokefield Common, 9 Sep 01 (AB/JW)



Peyritschiella protea (microscopy)

Peyritschiella protea Thaxt.
Upper Bucklebury, a minute fungus (laboulbeniomycete) on living Rove Beetle, 12 Apr 01 (MWS, Identified: Alex Weir.)

Phacidium multivalve (DC.) Schum.
Pamber Forest, 10 Nov 01 (PEC/JW)



Rickia dendroiuli (microscopy)

Rickia dendroiuli
Bucklebury Common, a minute fungus (laboulbeniomycete) on fore-legs of living Millipede, 9 Jun 01 (MWS, Identified: Alex Weir.)

HYPHOMYCETES

Graphium smaragdinum
Whiteknights, 20 Mar 01 (PEC)

RECORDER'S REPORT FOR ENTOMOLOGY 2001

David G. Notton

Curator of Natural History, Reading Museum and Archive Service

The order of families and nomenclature used is that given in the standard Royal Entomological Society checklists supplemented by Bradley and Fletcher (1979). Records presented are selected and edited for brevity: full details of all records submitted are available for examination on application to the Recorder at the address above. It is encouraged that voucher specimens are retained or deposited with the Museum for critical species.

ODONATA - Dragonflies & Damselflies

Aeshna mixta (Aeshnidae) Migrant hawker dragonfly. In garden, Great Knollys Street, Reading, 4 Aug. 01 (DN).

LEPIDOPTERA - Butterflies and Moths

Zygaena filipendulae (Zygaenidae) Six-spot burnet. A small colony breeding on a lawn left to grow long with many herbs, total of 24 moths seen this year, Emmer Green, 9 July 01 (JHFN). An example of what can be achieved in a suburban garden with sensitive management.

Synanthedon vespiformis (Sesiidae) Yellow-legged clearwing. Emmer Green, 30 July 01 (JHFN).



Yponomeuta cagnagella webs on Spindle

Yponomeuta cagnagella (Yponomeutidae). Larval webs on Spindle, *Euonymus europaeus*, on roadside, Compton Downs, SU50768072, 22 June 01 (MWS). The webs were noticed by passing drivers and featured in the local paper (Newbury Weekly News).

Deilephila elpenor (Sphingidae) Elephant hawk moth. 2001 was an exceptional year for this moth, 5 of the conspicuous caterpillars of this moth were reported/submitted to the Museum from the Reading district, one of the green form, most in association with garden fuchsias (DN).



Deilephila elpenor
Elephant hawk larva

COLEOPTERA - Beetles

Pterostichus angustatus (Carabidae) A ground beetle. On bonfire site in conifer plantation, Cranbourne Chase, Windsor Forest, SU935727, 13 May 00, (TDH). Notable.

Harpalus schaubergerianus (Carabidae) A ground beetle. Under flints on calcareous grassland near Streatley,

SU592799, 1 May 00 (TDH). Notable.

Dromius quadrisignatus (Carabidae) A ground beetle. Under fungoid bark of dead standing oak in a meadow near Miles's Green, near Bucklebury, SU548699, 3 Dec. 00 (TDH). pRDB1.

Plegaderus dissectus (Histeridae). In nest of the brown tree ant, *Lasius brunneus*, in rotten section of beech tree, beech woodland, Cranbourne Chase, Windsor Forest, SU937720, 20 May 00 (TDH). Notable.

Stenus argus (Staphylinidae) A rove beetle. On underside of log in damp meadow, Ot Moor, near Beckley, SP579142, 26 Oct. 00 (TDH). Notable.

Xantholinus angularis (Staphylinidae) a rove beetle. Bred from rotten white wood of beech tree which contained nest of *Lasius brunneus*, Cranbourne Chase, Windsor Forest, SU937720, 25 Nov. 00 (TDH). Notable A.

Lomechusa emarginata (Staphylinidae) a rove beetle. In nest of the wood ant *Formica fusca* under bark or conifer log, in beech wood clearing, Cranbourne Chase, Windsor Forest, SU938719, 20 May 00 (TDH). Notable A.

Oxyptoda recondita (Staphylinidae) a rove beetle. Sieving red rotten wood from inside oak log in conifer plantation containing mature oak, Cranbourne Chase, Windsor Forest, SU937724, 30 Aug. 00 (TDH). Notable B.

Batrissodes delaporti (Pselaphidae). In nest of *Lasius brunneus* in beech tree, Cranbourne Chase, Windsor Forest, SU937720, 20 May 00 (TDH). RDB1.

Gnorimus variabilis (Scarabaeidae) Variable Chafer. Reared from wood mulch of dead standing beech, High Standinghill Woods, Windsor Forest, SU 936742, Reared 1 Aug. 00 from mulch collected 23 Oct. 1999 (TDH). RDB1. Superficially similar in appearance to the commoner Rose Chafer.

Macronychus quadrituberculatus (Elmidae). On submerged logs in stream, Holy Brook near Calcot, SU666714, 29 June 00 (TDH). RDB3.

Hylis olexai (Eucnemidae). One dead specimen found on moss on fallen alder, woodland, Baynes Reserve, SU512653, 16 Sept. 00 (TDH). RDB3.

Malthodes crassicornis (Cantharidae) A soldier beetle. Reared from white rotten wood of beech log from beech and oak woodland, High Standinghill Woods, Windsor Forest, SU937742, reared 14 May 00, from wood collected 23 Oct. 1999 (TDH). RDB3.

Platycis minutus (Lycidae). From sieving white rotten wood of dead standing oak tree, in conifer plantation, Cranbourne Chase, Windsor Forest, SU937725, 30 Aug. 00 (TDH). Notable B.

Eपुरaea guttata (Nitidulidae). Beaten from oak tree at edge of oak woodland, Windsor Forest, SU950731, 23 June 00 (TDH). Notable B.

Amphotis marginata (Nitidulidae). In nest of *Lasius fuliginosus* in recently cut stump of beech on roadside verge near Whiteknights, Reading, SU734713, 2 Sept. 00 (TDH). pRDBk.

Cryptophagus labialis (Cryptophagidae). Reared from wood mulch of dead beech, from beech and oak woodland, High Standing Hill Woods, Windsor Forest, SU936742, reared 28 Oct. 00, from mulch collected 9 Oct. 1999 (TDH). Notable B.

Cicones variegata (Colydiidae). Under bark of beech tree, Cranbourne Chase, Windsor Forest, SU938720, 16 June 00 (TDH). Notable A.

Scaphidema metallicum (Tenebrionidae) A darkling beetle. Resting on fence post in scrub, Hitchcopse Pit, near Tubney, SU451996, 27 May 00 (TDH). Notable B.

Metoecus paradoxus (Rhipiphoridae). Found dead in chimney space below an active wasp nest, Great Knollys Street, Reading, Oct. 01 (DN). A curious looking beetle with reduced wing cases which is a parasite of the grubs of social wasps.

Arhopalus rusticus (Cerambycidae) A longhorn beetle. Under bark of beech tree in an area recently cleared of conifers, Cranbourne Chase, Windsor Forest, SU938721, 16 June 00 (TDH). Notable B.

Phymatodes alni (Cerambycidae) A longhorn beetle. Beaten from broom in parkland, Windsor Forest, SU949730, 20 May 00 (TDH). Notable B.

Cryptocephalus querceti (Chrysomelidae) A leaf beetle. Beaten from shrubby outgrowths on bole of oak in parkland, Windsor Forest, SU951732, 23 June 00 (TDH). RDB2.

Anthribus resinosus (Anthribidae). Resting on oak log in deciduous woodland, near Child's Court Farm, near Ashampstead, SU567753, 2 Apr. 00 (TDH). Notable B.

Brachytarsus nebulosus (Anthribidae). Beaten from oak in parkland, Windsor Forest, SU949730, 20 May 00 (TDH). Notable B.

Apion filirostre (Apionidae) A weevil. Swept from disused limestone quarry, near Ardley, near Bicester, SP537274, 25 July 00 (TDH). Notable B.

Dryophthorus corticalis (Curculionidae) A weevil. Reared from red rotten wood, probably oak, removed from inside dead standing tree, High Standinghill Woods, Windsor Forest, SU935742, reared 2 May 00, from wood collected 13 Nov. 99 (TDH). RDB1.

Hydronomus alismatis (Curculionidae) A weevil. In grass tussock at edge of pond in damp meadow, Ot Moor, near Beckley, SP579142, 26 Oct. 00 (TDH). Notable B.

Ceutorhynchus moelleri (Curculionidae) A weevil. By evening sweeping of chalk downland near Gatehampton Manor, near Goring, SU621793, 23 July 00 (TDH). pRDBk.

Hymenoptera



Andricus quercuscalicis
Knopper gall

Andricus quercuscalicis (Cynipidae) Knopper gall wasp. Baughurst SU580621, Aug.-Sept. 01. One oak tree in the garden of No. 8 Wellington Crescent has produced a good crop of acorns this year, a second tree a much smaller number. The second tree is partly

shaded by the other for most of the day. From the middle of August acorns with knopper galls began falling from both trees and continued until 11 Sept. 01. I estimate that at least 90% of the acorns have these galls and very few, if any, acorns are fully developed. I have not seen as many of these galls in the 21 years that I have lived here, though smaller numbers have appeared in years when there have been acorn crops (KHG).



Vespa crabro Hornet.

Vespa crabro (Vespidae) Hornet. Whitchurch-on-Thames. 27 May 01, coll. Mrs Witcher (DN).

Diptera

Volucella inanis (Syrphidae) A hoverfly. At flowers of Creeping Thistle, entrance to Bomb Dump, Greenham Common, SU502651, 15 July 01 (MWS)

Harris Gardens, University of Reading, SU736716, 6 Aug. 01 (MWS).



Volucella inanis a hoverfly

Numerous mature larvae found in chimney space below an active wasp nest, Great Knollys Street, Reading, Oct. 01, identification confirmed by rearing to adult (DN).



Volucella zonaria Hornet hoverfly

Volucella zonaria (Syrphidae) Hornet hoverfly. Near Postgraduate Research Institute for Sedimentology, University of Reading, 17 Aug. 01 (DN). This species is currently increasing its range and this is apparently the first Berkshire record.

Phytomyza hellebori (Agromyzidae) Hellebore Leafmining fly. On Stinking Hellebore, *Helleborus foetidus*, in garden in Thatcham, 5 Jan. 02 (MWS). (See the article on page 19)

Thanks are due to Hugh Carter for comparing lists of Coleoptera against the Museum database and assessing the status of the species and to the following members for their submissions:

(DN) David Notton, (JHFN) John Notton, (KHG) Ken Grinstead, (MWS) Malcolm Storey and (TDH) Tom Harrison.

RECORDER'S REPORT FOR INVERTEBRATES OTHER THAN INSECTS 2001

No records this year.

RECORDER'S REPORT FOR VERTEBRATES 2001

H. H. Carter

FISH

- Salmo salar* Linnaeus Salmon
No report this year or last
(Many released 1999, no earlier records)
- Cyprinus carpio* Linnaeus Carp
No report this year.
(Many in Widmore Pond, 2000; one in 1998, no other records 1994 to 1999)
- Leuciscus cephalus* (Linnaeus) Chub
Taken in the Kennet at Burghfield, reported 27.9.2001 (RC).
(formerly regular in Holy Brook at library)
- Barbus barbus* (Linnaeus) Barbel
In the Holy Brook, reported 27.9.2001 (RC)

AMPHIBIANS

- Triturus cristatus* (Schreber) Crested Newt
Press reports in south-east Reading (RC)
(Present at Lockyer Close in 1997, no other records 1994-1999)
- Triturus vulgaris* Linnaeus Smooth Newt
No reports received
(1 in 1996 and 1997, no other records 1994-1999)
- Triturus helveticus* (Razoumovsky) Palmated Newt
No reports received
(One in 1996, no other records 1994 - 1999)
- Bufo bufo* Linnaeus Toad
2 sightings 2001
(about 10 in 1998 and 1999, 5 in 1997, about 50 in 1996)
- Rana temporaria* Linnaeus Frog
No reports received
(1 in 1998 and 1999, 6 clumps of spawn in 1996, many clumps of spawn and 180 adults in 1995, 64 in 1994)

REPTILES

- Anguis fragilis* Linnaeus Slow Worm
No reports received.

(1 in 1999, about 5 in 1998, 1 in 1994)

- Vipera berus* Linnaeus Adder
No reports received
(7 in 1999, 1 in 1996, 1 in 1994 and 1995)
- Natrix natrix* (Linnaeus) Grass Snake
Clutch of eggs found while turning over compost heap in Upper Bucklebury (MWS)
(1 in 1997 and 1998, 5 in 1995)

MAMMALS

- Sorex araneus* Linnaeus Common Shrew
No reports received.
(2 in 1999, 1 in 1996 and 1997, 2 in 1994)
- Sorex minutus* Linnaeus Pygmy Shrew
1 dead Blackhouse Wood 16.9.2001; 1 dead in Littlestead Lane 30. 9.2001 (both MJC)
(2 in 1996, no other records 1994 to 1999)
- Talpa europaea* Linnaeus Mole
Active on Showground, Caversham Park, December 2001.
(signs at Henley 2000, active throughout 2000 on the Showground, 5 records 1997, 1 1995, 2 1994)
- Erinaceus europaeus* Linnaeus Hedgehog
4 records on Caversham Park.
(2 in 1999, 8 in 1988, 27 in 1997, 15 in 1996, 8 in 1995)
- Plecotus auritus* (Linnaeus) Brown Long-eared Bat
(going into hibernation on Warburg Reserve 2000)
- Mustela erminea* Linnaeus Stoat
No reports received (1 in 1998, 2 in 1996, 1 in 1994)
- Mustela putorius* Linnaeus Polecat
No reports received.
(2 2000, 3 1999)
- Meles meles* Linnaeus Badger
Resident at 15 Swanston Field, Whitchurch (MH). One dead on Peppard Road, 29.10.2001.

(about 10 in 1999, 2 in 1997, 4 in 1996, 18 in 1994)

Vulpes vulpes (Linnaeus) Fox
One dead on road at Highmoor, 8.9.2001 and one alive Caversham Park Road (both MJC); 1 in 2000, one in 1998, 10 in 1997, 1 in 1996

Muntiacus reevesi Ogilby Muntjac
One at Goring Heath 17.11.2001
(2 in 2000, about 12 in 1999, 5 in 1998, 7 in 1997 and 1996)

Dama dama (Linnaeus) Fallow Deer
No reports received.
(slots 2000, 2 in 1999, 12 in 1997, 1 in 1996, 3 in 1994)

Capreolus capreolus (Linnaeus) Roe Deer
No reports received.
(2 in 2000, 2 in 1996, 2 in 1995, 3 in 1994)

Lepus capensis Pallas Brown Hare
No reports received
(9 in 2000, 4 in 1998, 7 in 1997, 6 in 1996)

Oryctolagus cuniculus (Linnaeus) Rabbit
4 on various dates 2001.
(58 in 2000, 81 in 1999, 861 in 1998, 324 in 1997, 193 in 1996, itself an increase on 1995)

Arvicola amphibius (Linnaeus) Water Vole
Resident at Manor Farm, deported to Barn Elms Wetland Centre
(no previous recent records)

Apodemus sylvaticus (Linnaeus) Wood Mouse
1 dead on Littlestead Lane 14.10.01 (MJC)
(1 in 2000, 2 in 1999, 2 in 1994)



Micromys minutus Harvest Mouse nest

Micromys minutus (Pallas) Harvest Mouse
Nest in Thatcham reed beds at a height of nearly 2 metres, 28.9.2000 (MWS)
(No earlier recent records)

Sciurus carolinensis Gmelin Grey Squirrel
1 dead on Peppard Road near water tower; 1 Marchwood Close 7.6.2001; 1 at Lowfield Green, Caversham Park 5.9.2001; 1 dead on road between Highmoor and Nettlebed, 1 at Park Corner 8.9.2001; 2 dead at Goring Heath 7.10.2001, 1 dead in Grove Road, Sonning Common 11.11.2001.
(Total sightings 8, 7 in 2000, 17 in 1999, 21 in 1998; 28 in 1997, 54 in 1996, 14 in 1995)

My thanks are due to the following contributors:

Elizabeth Carter (EMC); Mary Carter (MJC); Reading Chronicle (RC); Margaret Hatton (MH) and Malcolm Storey (MWS)

EYE OF THE BEHOLDER

Malcolm Storey

After Christmas dinner, we walked around the lake at Thatcham Discovery Centre. Among the geese, swans, coots and assorted ducks were a couple of sturdy mallard-farmyard duck crosses of mottled and untidy colouration. I've noticed uneven colouring in mallard crosses before, but cannot bring to mind any pure bird species where colouring is asymmetrical in this way. Plumage normally consists of well-defined areas of colour and pattern, despite that fact that irregular blotching breaks up the shape and confers superior camouflage. Presumably the species own recognition of its fellows relies on easily-recognised features. Sexual selection would be expected to encourage the development of such markings, especially as symmetry is a sign of health.

Are our own ideas of beauty so very different? We admire symmetry and a fair complexion. We use make-up to smooth the skin tones and emphasise the demarcations; we even up the hairline. We too are assessing the health of our prospective mates, so the appearance of health is favoured by evolution. A side-effect of this shared evolutionary process is that birds appear beautiful to us too.

THE WEATHER AT READING DURING 2001

Ken Spiers

Department of Meteorology, University of Reading

JANUARY

The month started in the same vein as the old year finished, very wet and mild. However, a dry spell, starting on the 6th and lasting a couple of weeks, was a brief respite from the previous four months. At the end of this spell, it became very cold and wet, with showers falling as snow at times. There were some very sunny days, especially during the dry spell, with this January being the fifth sunniest since 1956. Clear periods during nighttime saw the number of ground frosts recorded at its highest since 1987. With the amount of rainfall being 37% above average, this did not help alleviate the flooding locally.

FEBRUARY

A dry period of weather during the third week, prevented this month from being very wet; however, it was still the wettest since 1990. During this dry spell, high pressure was stationed over the British Isles, and on the 18th a reading of 1043.8 mbs was recorded, the highest reading since 1979. Also most of the frosts were recorded during this period and this helped produce the lowest monthly mean temperature since 1996. Sunshine for the month was 21% above average, however, the total sunshine hours was still the lowest for four years, due in fact to a run of very sunny February's.

MARCH

The month started very cold, with some penetrating night frosts. The lowest temperature recorded during this period was -6.4°C , the lowest daily reading since 1965. Light snow showers spread over the area on the northeast winds, which resulted in the highest number of snow days since 1987. However by the 7th, the weather turned warmer and more unsettled, from a south, southwesterly direction. It became very dull at times, with the month's total sunshine the lowest since 1992. Rainfall was the main feature and this month ended a long sequence of dry March months, making this March the wettest since 1981.

APRIL

Another unsettled month, wet, with above average temperatures and windy at times. Although it was the driest month since July, it was still the eighth month in a row, with its rainfall above average. There was a spell during the middle of the month, which was dominated by high pressure. Temperatures dropped below average during this period, with the result that the mean for the month was the lowest since 1989.

MAY

At last a dry month. A cool start, turning warm and wet during the second week, with thunder at times. During this period a temperature of 25.4°C was recorded on the 11th and the 13th, the highest since 1995. However the month saw a number of ground frosts, which amounted to the highest number since 1996. The last two weeks of the month saw high pressure dominate our weather, with above average temperatures, no rain and very sunny days.

JUNE

A reasonable start to the summer season, with temperatures slightly below average but very dry and sunny at times. The minimum temperature recorded on the 9th, 2.0°C , was the lowest since 1991 and with the nightie temperatures not really improving until much later in the month, the mean minimum temperature for the month was the lowest since 1991. Most of the month's rainfall occurred on the 15th and 16th; the rest of the month had little or no rainfall. There was a short hot spell, lasting just three days, starting on the 24th. This culminated on the 26th with a temperature of 31.1°C , the highest since 1995. Around this time there were some long sunny days, making this June the sunniest since 1996 and the second month in a row with total hours over the two hundred mark.

JULY

High pressure over the northern part of the country produced hot, dry and sunny conditions. However as the high moved away, a spell of cooler, wet weather spread over the country, however, it still remained fairly sunny. By the end of the month, high pressure was back, giving us very warm, sunny

and dry days. On the 29th a temperature of 30.8°C was recorded; this was the highest reading since 1995 and the mean temperature for that day, 24.1°C, was the highest since 1994. Once again the rainfall was below average, for the third month in a row, with the total 87% of the expected average.

AUGUST

This was a disappointingly unsettled month at times, with short hot spells, occasionally very sunny and some very wet days. It was the first month since April that had well above average rainfall. A measure of how wet the month was, was the total, which made it the fifth wettest August in the last thirty years and the 18th, which had 18.3 mm, was the fourth wettest August day in the last ten years. There were some very sunny days; however, there were three days which did not record any sunshine, the highest number since 1992.

SEPTEMBER

As the month progressed it became cooler more unsettled and dull. The first half of the month was fairly sunny but with several days not recording any sunshine in the second half, September ended with its sunshine total the lowest since March. With fronts frequently passing over the country, the number of days when rain was recorded was the highest since 1975. It was cool with only four days reaching twenty degrees, the lowest number of days since 1994. Daytime temperatures during the middle of the month dropped to around five degrees below average. All this contributed to this September being the coolest since 1994.

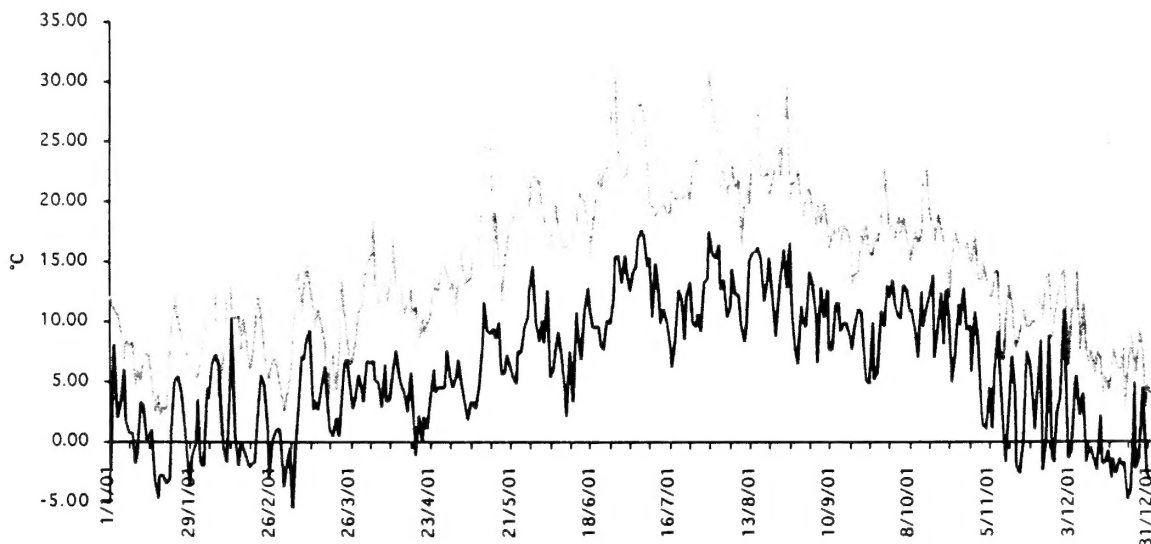
OCTOBER

Although this month's rainfall was 50% above the long-term average, it was the temperature that was the main feature of the month. Nightie temperatures remained very high, with the monthly mean minimum temperature the highest in the last eighty years. This helped the mean for the month to its highest value since 1995, which in turn was the highest since 1921. This was the wettest month of the year and the wettest since last November. Overall this was the sixth wettest October in the last thirty years and had the highest number of days with thunder since 1921.

NOVEMBER

November contrasted greatly with October, cooler and drier with light winds. This was due to high-pressure systems dominating our weather throughout the month, with clear skies at night this produced the highest number of air frosts since 1996. It was a dry month up to the 25th when it became a little unsettled. With the number of wet days (1.0 mm or more) the lowest since 1993, all this helped November being the driest since 1990. About 60% of the total month's sunshine was in the first ten days but there was still some sunny days recorded throughout the rest of the month, with the total for the month being the highest since 1996.

Temperature: daily maxima and minima during 2001



DECEMBER

After an unsettled start, when a temperature of 14.5°C was recorded on the 5th, the fourth highest for any day in December. Temperatures began to drop to well below average levels. Once again influenced by high pressure, there were a high number of air and ground frosts: the highest number since 1951 and 1976 respectively. Sunny throughout the month, the amount of sunshine was the highest since sunshine records were first kept at the University in 1956.

DAILY WEATHER RECORDS: 2001 – UNIVERSITY OF READING (WHITEKNIGHTS)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Mean Daily Temperature °C													
Maximum	7.0	8.8	9.1	12.4	18.1	20.2	23.3	22.3	17.5	16.9	11.2	7.0	14.5
Minimum	0.6	1.6	3.0	4.2	7.3	9.4	12.4	12.4	9.6	10.2	3.0	-0.3	6.1
Mean	3.8	5.2	6.1	8.3	12.7	14.8	17.9	17.4	13.6	13.5	7.1	3.4	10.3
Range	6.4	7.2	6.1	8.2	10.8	10.8	10.9	9.9	7.9	6.7	8.2	7.3	8.4
Extreme Maximum	12.1	12.9	14.9	18.4	25.4	31.1	30.8	29.6	22.7	23.0	14.9	14.5	31.1
Date	23rd	11th	31st	1st	11th	26th	29th	25th	28th	13th	2nd	5th	26th June
Extreme Minimum	-4.7	-3.0	-6.4	-1.2	1.7	2.0	6.1	6.3	4.7	4.8	-2.7	-4.9	-6.4
Date	17th	25th	5th	17th	5th	9th	16th	29th	23rd	22nd	15th	23rd	5th March
Extreme Grass													
Minimum	-10.9	-9.0	-13.0	-8.8	-4.8	-5.4	-2.0	-1.1	-2.0	-1.0	-8.1	-11.4	-12.0
Date	17th	25th	5th	17th	5th,8th	9th	16th	29th	23rd	29th	15th,23rd	23rd	5th March
Days with:													
air frost	13	11	5	2	0	0	0	0	0	0	6	22	61
ground frost	26	20	11	19	13	6	1	1	4	1	16	25	143
Hours at/below 0°C	78.0	64.0	59.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	194.0	448.0
Sunshine Hours													
Total	72.5	85.5	60.6	128.7	207.6	225.2	196.8	185.2	127.8	93.0	80.6	74.6	1538.1
% of Possible	27.5	30.3	16.4	31.0	43.2	45.7	39.6	41.1	33.7	28.0	30.0	30.3	34.3
Daily mean	2.34	3.05	1.95	4.29	6.70	7.51	6.35	5.97	4.26	3.00	2.69	2.44	4.21
Precipitation													
Amount in mm	74.1	73.1	93.8	64.8	31.1	34.2	35.9	85.8	56.2	99.0	29.0	24.9	701.9
Rain days	13	14	21	16	8	6	9	14	18	18	11	11	159
Maximum rain in one day													
mm	30.0	11.0	14.3	14.1	7.3	19.8	12.5	18.3	11.8	13.2	5.7	13.8	20.0
Date	26th	12th	20th,27th	8th	15th	15th	7th	18th	28th	1st,22nd	30th	3rd	26th Jan
Mean wind speed													
mph	3.6	3.5	4.1	4.2	3.5	3.1	2.8	2.6	2.8	2.9	2.2	2.5	3.2
Days with:													
sleet or snow	4	1	4	1	0	0	0	0	0	0	0	0	10
snow lying	1	0	1	0	0	0	0	0	0	0	0	0	2
fog at 0900 GMT	3	7	1	0	0	0	0	0	2	1	0	3	17
thunder	0	0	0	1	4	0	0	2	0	3	0	0	10
hail	0	0	0	0	0	0	0	0	0	0	1	0	1
Mean Pressure													
mbs	1009.6	1018.4	1004.4	1013.4	1019.4	1017.9	1014.3	1015.2	1015.9	1012.2	1025.0	1025.1	1015.9
Highest	1035.7	1043.7	1017.2	1033.4	1030.2	1028.5	1027.7	1026.8	1022.9	1026.7	1042.4	1041.5	1042.4
Date	14th	18th	5th	13th	8th	19th	2nd	1st	15th	29th	2nd	17th	2nd Nov
Lowest	981.6	989.5	995.2	999.1	997.8	1001.5	995.0	999.0	1006.7	996.7	999.3	999.8	981.6
Date	2nd	27th	28th	7th	16th	16th	18th	19th	29th	8th	8th	25th	2nd Jan

