The Reading Naturalist

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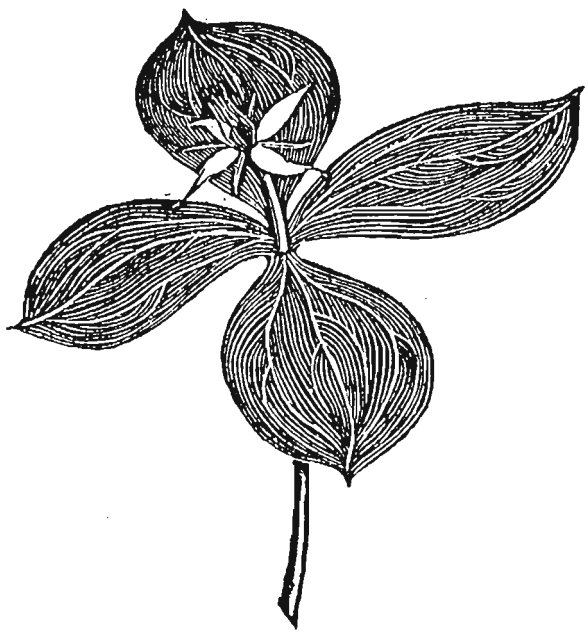

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EDITORIAL

Meetings Reports are written by the Secretary and for the past eleven years that has been a task for Meryl Beek. It has been only a part of the duties which she has carried out and I know that on her resignation, all members will wish to join with me in appreciation of her work for the Society for so many years. We welcome Cath Butcher as our new Secretary and hope that she will find the task rewarding.

A change in the format and appearance of the Recorder's Reports has been introduced this year. The use of double columns saves space and is in line with many other similar publications. Also the cost of production of The Naturalist is considerably reduced. I hope that members will find the presentation attractive and acceptable. I shall be pleased to hear members' opinions of the change.

Following from the space saving mentioned above it has been possible to include more articles than would have been possible with the previous format. I am very pleased that members have come forward to provide articles, in one case without any prompting! My heartiest thanks.

I welcome David Notton as the Recorder for Entomology and am particularly pleased that his first Report was very neatly set out and received in good time on computer disk. Many thanks David.

Ken Speirs continues to send Reports on the Weather at Reading. This contribution is most welcome, it has been a feature of the publication for many years and once again I must thank Ken for providing it.

EXCURSIONS 1997 - 1998

Graham Saunders

The first excursion of the season was on Sunday, 26th. October to Westonbirt Arboretum led by Michael Keith-Lucas. 25 members and perhaps 10,000 non-members were present in the grounds with an appropriate number of vehicles in the several car parks! The morning was bright and sunny though the skies clouded over later in the afternoon. Since the Autumn had been relatively frost-free the leaf colours, especially of the maples, were not at their best. Nevertheless Michael found for us many trees of particular interest, especially conifers, which are a feature at Westonbirt. The day ended with a walk around the area planted since the Forestry Commission became responsible for management of the Arboretum.

The first Winter walk in the New Year was led by Meryl Beek on 24th. January to Mapledurham and Path Hill. 14 people arrived at the Goring Heath crossroads on this sunny Saturday morning. Many Brambling and a Redpoll were almost immediately spotted in a nearby orchard garden. A Buzzard was watched from the hill overlooking Mapledurham and the River Thames, where hazily the view extended far southwards to Pilot Hill near Kingsclere. In Bottom Wood several fungi were observed, including Yellow Brain Fungus and Jew's Ear. On the ancient path between Mapledurham House and Hardwick House, there were many Walnut trees, including one extremely large old specimen (the father of them all?). A very large London Plane stands in a nearby field. Spring was coming on apace in the woods on the Hardwick side where Celandines, Violets and Snowdrops were in flower. A lot of leaves of Woodruff were seen and, best of all, a number of stands of Butcher's Broom in all stages from flower to red berry!

A group of nine, including some visitors, led by Dr Sean O'Leary had an extremely interesting outing to view mosses around Silchester Common and Pamber Forest on 21st. March. They always appear to laymen, like myself, to be one of the difficult groups of flora, probably because most of them do not have English names and superficially all look the same. But no. Guided by an expert, one sees that some have fern-like leaves such as *Isopterygium elegans*, others like *Orthotrichum affine*, in the Bristle-moss Family, have tufts with white hairs at their tips, yet others, such as *Dicranella heteromalla,* in the Fork-moss Family have a pin-cushion appearance. In all some 40 species of moss were listed. A liverwort, *Pellia epiphylla,* was found beside a small stream with flowering Wood-sorrel nearby. The Blushing Bracket fungus was plentiful on a fallen tree and a myxomycete, *Reticularia lycoperdon*, was noticed on a standing Birch.

What a pleasant village Beenham is, situated on the south facing slope of the chalk hills, with village hall and children's playground surrounded by woods and fields. Seven members turned out on 4th. April to tramp through the tracks and byways on a pleasant spring day. A circular route was followed, past the church, and through several woods. Bush Vetch, Lesser Cellandine, Wood Anemone, Bluebells, Lords-and-ladies, and in the damper spots, Moschatel, Primrose and Goldilocks Buttercup were seen. Alas, the wild daffodils were not seen, but they were reported in a private wood which could not be explored.

Nine members and guests turned out for the cold and windy evening of 17th. April at Stratfield Saye. No-one had previously visited the site, so we spent an interesting half hour trying to find 'the field'. But what a sight it was when we did! Thousands upon thousands of Fritillaries nodding in the wind, ranging from white to dark purple. Some were already in seed, while others were still in bud. I am told that the meadow is mown, which may help to spread the seed. The bats, which we had come to see, decided to stay asleep as none were detected.

The meeting, led by Martin Sell, to the South Coast on 9th. May began at Theale. A good selection of warblers were seen or heard, these included Sedge, Reed, Willow, Chiffchaff and Blackcap. There were also several Nightingales in full song. At Selsey Bill two Arctic Skuas flew past, two Common Scoters, several Divers, Gannets and Fulmars. A few Swifts and Swallows on migration were coming in over the sea. Waders at Pagham Harbour included Wimbrel and Godwits.

Meryl Beek led the evening walk on 18th. May at Mapledurham. It was a halcyon walk for six people, but really it could have been renamed "Hound's-tongue evening"! The old bridleway linking the Mapledurham and Hardwick estates revealed a number of fine stands of Hound's-tongue with maroon flowers in prime condition. Also along this stretch, the small flowers of the Spindle tree were noted. On the chalk grassland above there is now heavy grazing. The party watched a hot air balloon land safely by Mapledurham House. Salad Burnet and Milkwort were still only in leaf on the hillside. The eastern end of Bottom Wood has undergone a lot of management recently, and plenty of Yellow Archangel has sprung up in the sunny cleared patches. There was no sign of the Deadly Nightshade seen here some years ago. A nice Wych Elm continues to grow in the little copse which was passed on the way home.

A gang of 24 descended on Rod d'Ayala at Bix, on 30th. May. The Warburg Reserve is large enough to always provide new interest on every visit. Rod showed us his 'garden' where some less common wildflowers are grown, they include Corn Buttercup, Dragon's Teeth, Woad and Shepherd's-needle. A Red Kite, quite common here now, flew over. Herb-Paris and Fly Orchids were in flower also Field Gromwell, Deadly Nightshade and Columbine. A Dryad's Saddle fungus was seen on a tree stump. It was interesting to find four species of St-John's-worts, including Hairy St-John's-wort, close to each other in the fields. The strange Bird's-nest Orchid was found in deep shade and a few White Helleborines were in flower under the bushes. The rare Meadow Clary, originally planted at Bix, is growing well since being fenced to prevent rabbit grazing. A few Greater Butterfly Orchids were in flower in the open grass areas near the car park.

Nine members ventured to the BBONT Reserve at Dry Sandford Pit on 6th. June. A large area near the entrance to the reserve was dominated by Ground Ivy, so much so that it appeared wholly purple. It was interesting to see the Marsh Thistle and the Welted Thistle next to each other and to compare the differences. Many plants of the Marsh Helleborine were seen, but none were in flower. A garden escape, the Bearded Iris seemed rather incongruous in the grassland and it was encouraging to see the healthy population of Greater Spearwort in a small pond. But where were all the digger wasps and mining bees for which the reserve is particularly noted?

A good number of members turned out on 20th. June, one of the hot days of the summer, to view Spiked Star-of-Bethlehem, also called Bath Asparagus. The site is on private land at Ashridge Wood and we were led to it by Malcolm Storey. For some hundred yards on one edge of the track leading to the wood there was a swathe of Opium Poppies, a magnificent sight! Curious scrapings in the bank turned out to be a badgers' toilet. Spindle and Buckthorn were growing in the hedge. The path across the field was barred by a dense head-high growth of Oil-seed Rape. The number of plants of Bath Asparagus was a revelation to those who had not visited the site before, though Malcolm said that there were not as many as last year. Common Valerian was also present in good numbers and Narrow-leaved Everlasting-pea was found as well as some leaves of Meadow Saffron. On returning to the cars, plants of Grass Vetchling were seen on the embankment of the A34 dual carriageway.

This year's Coach Outing was to Gloucestershire, when on 27th. June it was planned to visit four Nature Reserves. The first stop was Painswick Beacon, an absolutely fabulous site. Just by the road, as we stepped off the coach, were Pyramidal, Bee, Common Spotted, Fragrant, and the diminutive Musk Orchids. Later Fly and Bird's-nest Orchids, Common Twayblade and White and Broad-leaved Helleborines were seen. In all ten species of Orchids in a fairly small area! Other limestone plants were Yellow-wort, Dwarf Thistle and Hairy Rock-cress. A Scarlet Tiger moth was hanging on a leaf by the path and a few Marbled Whites were on the wing. The next site was Overpools, which was reached from the old Thomas Telford bridge over the River Severn. Reed Warblers and Chiffchaff serenaded us and the plants seen included Water-plantain, Water Dock, Arrowhead, and both Tubular and Corky-fruited Water-dropworts. The third Reserve was not visited due to difficulty of approach, while the last Reserve entailed a walk up a steep hill to Old London Road to see the rare Limestone Woundwort. Well worth the effort for those who decided to make the climb!

Only three persons, one not a member of the Society, were present on 19th. July for Alan Brickstock's meeting at Basildon Park. Unfortunately, several regulars were on holiday and missed an excellent meeting on a fine summer afternoon in a beautiful valley with a profusion of chalk downland flowers to delight the eye - this was a sample of England as it used to be! Species found included two of the largest specimens of Bee Orchid Alan had ever seen (sadly virtually over), Common Centaury, Eyebright, Fairy Flax, Musk Mallow, Dark Mullein, Weld, and Square-stalked St.-John's-wort.

On 2nd. August, a warm and sunny day, 13 members joined the leader, Rod d'Ayala at Nettlebed Common. Brick making and clay digging have been practiced from the 14th. century to the 1930's in the area, a brick kiln can still be seen. A system of ponds and linking channels maintained water levels enabling the clay to be dug. The first pond visited had Water-soldier, which has been re-introduced to the common, and Common Water-crowfoot. Numbers of Frogs were present. Common plants were American Willowherb, Common Hemp-nettle, Water Mint and Marsh Cudweed. Another pond had responded to regulated water levels with an explosion of Lesser Spearwort. A Grass Snake surprised us by swimming across yet another pond. The uncommon fungus, *Volvariella bombycina,* was seen growing on the trunk of a Birch tree.
(An article by Rod on Nettlebed and District Commons appears on page 20)

Malcolm Storey's day at Greenham Common on 15th. August attracted 54 people, mostly non-members, to the afternoon walk. Mark Hampton from West Berkshire Council gave a potted history of the site. The runways are being broken up and some of the concrete has been used as foundation for the Newbury Bypass. The Common has large patches of Heather, Bell Heather and Gorse. Blue Fleabane was noted and a highlight was the discovery of Autumn Lady's-tresses with flowers spiraling up the stem. To its surprise the party disturbed a Fox and a male Roe Deer. A stonechat scolded us from some hay bales and a few ragged

Grayling were still flying. A good number stayed on for the evening meeting and plants seen while it was still light included Viper's-bugloss, Weld, Great Mullein, Common Centaury, Small Cudweed, Red Bartsia, Brookweed, Hare's-foot Clover, and a large stand of Wild Teasel. MV lamps were set up by Martin Harvey, Norman Hall and David Young. Most of the moths appeared before eleven o'clock, after which time it became really cold. The species recorded were Orange Swift, Rush Veneer, Yellow Shell, Small Seraphim, Yellow Belle, Sallow Kitten, Iron Prominent, Swallow Prominent, Scarce Footman, Ruby Tiger, Flame Shoulder, Common Wainscot, Dark Arches, Flounced Rustic and Light Spectacle.

The Warden, Nigel Snell, led a meeting attended by 11 members to the BBONT Reserve at Warren Bank on 29th. August. This small but very interesting Reserve is situated on a steep slope of the Chiltern Hills. Nigel gave a short talk on management and a summary of the species of fauna and flora to be found. Plants still in flower included fine colonies of Devil's-bit Scabious, Dwarf Thistle and Carline Thistle. Autumn Gentian was present but many plants were no longer in flower. Guelder-rose and Wayfaring-tree were seen growing side by side, the former with many bright red fruits. Brimstone and Brown Argus butterflies were on the wing and a pair of Bloody-nosed Beetles, which feed on Bedstraw, were found amongst grasses. A search was made for the Great Green Bush-cricket, known to be present on the Reserve, but unfortunately it was not found.

Twelve members came on the walk, led by Martin Sell, over the Berkshire Downs near Churn on 5th. September. Several butterfly species, mainly Common Blues were seen, only one Painted Lady was observed. Plenty of Devil's-bit Scabious was in bloom with Bastard Toadflax and Autumn Gentian, or Felwort, also noted. Some members were fortunate to find a single Clouded Yellow on another part of the Downs. At the end of the day a Marsh and a Hen Harrier were seen flying over stubble fields.

The 19th. September saw a return visit, again led by Rod d'Ayala, to the Warburg Reserve, with 7 people in search of a Dormouse (a good title for a novel?). These elusive animals are rarely seen, being nocturnal and arboreal. Bix is one of several BBONT sites where a monitoring scheme has been set up involving the erection of special nestboxes (with the hole on the inside, i.e. next to the tree) which aims to find more about the population, size and distribution across the 3 counties. The set of boxes looked at was at the top of the reserve, near Maidensgrove, where it was known that Dormouse were active and hopefully still present in at least one box. As luck would have it, one was at home, and despite trying to escape a few times all present had a good look at the somewhat startled creature. (though Dormice always look startled with those big bulgy eyes!). The rest of the walk took in the old coppiced woodland, Maidensgrove Scrubs (part of Maidensgrove and Russell's Water Common) with late flowers and fungi being spotted en route.

On 3rd. October the Fungus Foray to Harpsden Woods was led, as usual, by Alan Brickstock and at last, this was a real foray! A rather cold, dry day, and after a lot of rain there were finally large numbers of fungi to be found, with a total of 124 species for the day. The usual specialities of this site all duly obliged. *Amanita phalloides* were there in large numbers, not only in their usual place, but widely scattered through the woodland on the afternoon foray. Some huge specimens of *Geastrum triplex*, *Geastrum sessile* and the beautiful *Tricholoma ionides* were all present as ever on the roadside verge at the bottom of the hill. We also found *Melanophyllum echinatum* (*M. haematospermum*), *Inocybe griseolilacina*, *Inocybe hirtella*, *Inocybe pyriodora*, smelling of pears, the uncommon *Collybia succinea* (identified by Richard Fortey) and some large *Cortinarius*, possibly *elegans*.

Many thanks to Meryl Beek, Alan Brickstock, Rod d'Ayala and Martin Sell who have supplied information on excursions during the season.

WEDNESDAY AFTERNOON WALKS

Alan Brickstock

Once more Ken Thomas came up with some very nice walks, much enjoyed by the dedicated few members and friends, and as always there was much to see. The one exception was the first walk in April: for the first time we abandoned a walk due to rain! It rained on the way to Tadley, but as 2 o'clock approached it became ever heavier, and the half dozen or so who turned up decided to 'abandon all hope'.

The walk at Dunsden on 13th May was a very different matter. This was a fine, warm day, very dry underfoot, although it had obviously been very muddy. Ken gave us his usual talk about Dunsden church, and its associations with Wilfred Owen. The 88 species of plants included no particular speciality, unless you count Three -comered Leek. Two Red Kites, which gave an excellent display for us, were the best thing seen by far.

In complete contrast the outing at Knowle Hill on 17th June was a very wet one, with a prolonged heavy downpour across the middle of the walk. We had tea in the porch at Littlewick Green church, where we admired a very large, superb early 15th century painting behind the altar. This was found under an 18th century painting,

which was stripped off - a questionable practice to my mind! The rain did more or less stop, then 88 species of plants included Pellitory-of-the-wall and some pink-flowered Purple Toadflax.

On 17th July we learnt that George Washington's ancestors are buried at Barkham church, which has a superb ancient studded door and a fine old Cedar tree in the churchyard. The 104 species of plants found included Betony, Fox-and-cubs and Heath Groundsel, which is not too common locally. An excellent walk.

On 12th August Ken led us round my home patch at Sulham, leaving me to guess which way he would take at each path junction - usually wrongly! No fewer than 111 species of flowers were recorded, including lots of Field Madder, Trifid Bur-marigold, Petty Whin - always present on a tiny uncultivated patch in the corner of a meadow, Wild Barberry, Butchers Broom, both Round and Sharp-leaved Fluellens, and best of all a fine specimen of Violet Helleborine. I discovered this for the first time last year, when it had a single spike. This year it had three flowering spikes, but sadly two of these were eaten off.

For the final Wednesday walk at Crowmarsh on 16th September, Ken was unable to be with us. A previous 'recce' showed that the planned walk was troublesome due to ploughed up footpaths and obstreperous cows, so I led a group of nine, plus two dogs, on a modified walk, going to the attractive village of North Stoke, having tea by the river just south of here. A mere 51 species of flowers, including Vervain and some nice Dark Mullein, but an excellent walk on a very windy but fine, sunny day.

Our grateful thanks once more to Ken for working out these walks, and for all his interesting discourses.

MEETINGS 1996 - 1997

Meryl Beek

1997

Thirty six members and friends turned up on 23rd. October, expecting a lecture by Dr. Rob Strachan on 'Mink and its Effect on British Wildlife'. Unfortunately Dr. Strachan was in hospital so the programme had to be replanned. Mr. John Wrigley gave his lecture entitled 'Astronomy is looking up'. John emphasized, using his own scale model stretching the length of the Abbey Room, the vast distances to the outer planets, Uranus, Neptune and Pluto. After slides of some well-known constellations visible in the night sky, the meeting was challenged to make better use of the lighting in our streets and towns, to view the stars more readily and to promote savings in electricity. This mundanity was well contrasted with the mind-boggling enormity of space, which was explained well, and even understood a bit by those without any mathematical qualifications!

On 13th. November Professor Humphrey Kay's lecture on 'Wildlife of the Kennet and Avon Canal', was attended by 41 people. The area mainly covered was to the west of Pewsey, near the speaker's home. The canal provides a 'green corridor' through the 'prairies' of ploughed fields and the hills on either side. The effect of duckweed growth on wildlife was considered, and as the canal has become upgraded, boat traffic has increased. This has stirred up the duckweed, and experiments have shown that for the greatest number of species of water plants there is an optimum number for boats using the canal. With both more and less traffic, there would be fewer species present. Many birds, bats, fish, frogs and newts, stoats, mink and crayfish were mentioned. Dragonflies, from April onwards, include hawkers, darters and damselflies, and at Bedwyn the Fringed Water-lily is found.

Mary Tindall, on 27th. November, described to 43 members her visit in 1996 to the State of Orissa, in central eastern India. In a remote part she was studying the health of the people in 28 villages. These villages are only accessible, in the main, by bicycle or on foot, and are seldom visited by outsiders. Slides of local trees were shown and crops harvested included chilli and rice. Exhibits of local products were handed around the meeting. Although, by our standards, conditions in the villages might be described as 'primitive', Mary's conclusion was that many of the forest remedies were as effective in the treatment of medical conditions as our modern antibiotics.

1998

For 8th. January there had, once again, to be programme changes. 43 people listened to Philip Staines, a member of the Society, describe his trip through the Canadian Rockies. Spectacular landscapes, on a scale not seen in Britain, and mountains in some respects resembling the European Alps, left lasting impressions. Philip's very close and unexpected encounter with a black bear was startling - to say the least! Amazingly his hand remained steady for his photography!

Dr. Rob Strachan's long awaited lecture on 'Mink and its Effect on British Wildlife' was given to 42 members on 22nd. January. Mink farming started in Britain in the late 1920's to satisfy the fur trade. Many mink

escaped from the farms and in 1957 mink were recorded breeding in the wild. As the number of mink has increased the number of water voles in some areas has decreased, but intensive agriculture is also responsible for the decline. The main food of mink is rabbit, but they also prey on water birds and swim to offshore islands wreaking havoc with ground nesting birds. In the 1990's mink have increased dramatically and mink movements are understood better now that some have been fitted with radio collars. The work goes on, and native wildlife needs saving from this menacing animal!
(A precis of Dr. Strachan's talk appears on page 15)

On 12th. February 56 members, the largest attendance since January 1989, heard Dr. Ann Walker of Reading University and a member of the National Institute of Medical Herbalists, speak on her research into the effects of herbal remedies on certain bodily disorders. She spoke first of Meadowsweet, which acts like aspirin. Most plants are given to patients in the form of a tincture. Some plant extracts act as foods and not as drugs. Safety guidelines are well formulated, and the UK Medical Act of 1963 restricts the use of a handful of plants (not surprisingly Hemlock!) Will future health and diet in relationship with non-toxic 'flowers of the field' be a better option than conventional medicine? Time will tell!

When Dr. Brandham on 25th. February paid his second visit to the Society, he showed 34 members the fantastic flora of Southern Africa where there are 20,000 species of flowering plants (in contrast there are only 1500 in Britain). First of all he went to the Kirstenbosch Botanic Garden - acres of delight. The garden rises to 3,500 feet and has an infinite variety of plants. Then the wild flora on rocks off Cape Town, too steep for human invasion, and also the Cape peninsular. Finally travelling north to semi-desert in Namaqualand, an area needing official permits to enter, the members saw plants in the main totally unknown to them. There were *Iridaceae* in plenty and *Liliaceae* abounded. Dr. Eric Watson kindly supplied the minute book with a very comprehensive list which can be consulted by anyone interested. A colourful evening!

For the final lecture of the season on 12th. March, Paul Hendry, who is in the Warden Service at the Thatcham Nature Discovery Centre, spoke about its beginnings. It is based in an old boat shed and a £150,000 facelift has transformed it into the Centre seen today. It is available to all ages, and activities include 'binocular days', bird observation and work by a bodger making chair legs. Under the Pang Valley Countryside Project umbrella the Warden Service have a charcoal kiln using sustainable woodland near Bucklebury, with other sites at Snelsmoor and Greenham Common. At the latter the heathland will eventually be restored as the old concrete runways are broken up.
(An article by Paul Hendry on the Thatcham Nature Discovery Centre appears on page 40)

As well as the now established annual Christmas Party, the season was completed on 26th. March with a Members' Evening, which included a nostalgic look at the summer excursions of 1997, a short bird talk with anecdotes by Martin Sell, and then the meeting went 'Batty' with Graham Saunders, who introduced members to some of his friends. At least everybody should be able to identify some of the more usual bats now! After this members teased their brains with Meryl Beek's '20 Questions' compiled from her natural history and landscape slides. The winner was Martin Sell with 15 points, the prize was a packet of wild flower seeds!

All who have contributed to the successful and varied season are thanked, especially Alan Burt, the Winter Programmes Secretary. May next year be just as good - or perhaps even better!

MEMBERSHIP

At the Annual General Meeting the Treasurer reported there were seven Honorary members and 149 Ordinary members of the Society. The number was unchanged since the previous AGM.

The President proposed and it was agreed that Ken Grinstead should be awarded an Honorary Membership of the Society. In voicing appreciation Ken said that whatever service he had given to the Society was more than outweighed by knowledge gained from participation in meetings and excursions organised by the Society and especially by the many friendships made over the years.

The Society welcomes the following new members who joined during the year 1998:

Ms. Helen Brealey, Mrs. Enid Codling, Mr. Alan & Mrs. Linda Eberst, Mrs. Lynn Erles, Dr. Martin Victor, Mrs. Helen Mary & Miss Catherine Louise Gray, Mr. Deryk Gilbey, Mrs. Roberta & Robert, Richard & Rosalind Ramsdale, Mr. I. K. & Mrs. Yvonne Robertson, Mr. H. G. & Mrs. S. J. Smith, Mr. R. N. & Mrs. J. V. Tattersall, Ms. Teresa Verney, Mrs. Madeleine Walton-Evans.

Mr. Robert (Bob) & Mrs. Linda (Lin) Carter and Miss Anne Wills have rejoined the Society.

FIFTY YEARS OF NATURAL HISTORY

PRESIDENTIAL ADDRESS BY MARTIN SELL

This evening I would like to share with you a few experiences in the field of Natural History, reminiscing over the past fifty years, which is about as long as I have kept some sort of record of what has been happening about me. Before I came to Reading in 1957, I have some fairly vivid memories of natural events, some of which reflect changes that have taken place over the period. I remember seeing my first Dartford Warbler in the New Forest in 1948. The area, though then threatened with development, has not been built upon and retains its population of this bird. Finding a Red-backed Shrike's larder near Bath in 1950 caused great excitement. Unfortunately this bird is now extinct as a breeding species in Britain.

Since coming to Reading I have amassed 14 thick notebooks of my observations which, when re-read, offer fascinating glimpses of how things have changed.

Large Elm trees began to wither in 1968 and all measures taken to try to save them seemed doomed to failure. Yet we are not bereft of Elm trees - they grow to a certain size, then die back. Those creatures which are dependent on them for food, for instance the White-letter Hairstreak, do not seem to have suffered. Great Spotted Woodpeckers have now become more common than Green Woodpeckers as a result of more dead trees and more insects becoming available.

Other birds have not done as well. Tree Sparrows could be seen everywhere in the countryside - in 1972/73 there were many on the Berkshire Downs and they were even seen in our Close in Tilehurst in 1977. Since then their numbers have crashed by nearly 90% nationwide. Yellowhammers and Corn Buntings have also been drastically reduced in numbers. This has been due to major changes in farming practice with 'clean' arable in the East and grass leys in the West of the country, the old 'mixed' farming now being a rarity.

A prime area for bird watching until 1979 was Manor Farm, the old sewage sludge beds, long since disappeared and now the site of the new Sports Stadium. The Kennet valley is an avian flyway for migratory birds, and some extreme rarities found the settling beds a very agreeable stop-over. Little Ringed Plovers, which first bred in Britain in 1949 at new gravel workings in Tring, were regular visitors. Snipe, Jack Snipe, Kentish Plovers, Little and Temminck's Stints and rarities such as Sharp-tailed and Pectoral Sandpipers, Black-winged Pratincoles and the occasional Hoopoe were recorded. Even two pairs of Bearded Tits found the Reeds (*Phragmites australis*) and Bulrushes (*Typha latifolia*) to their liking and stayed for a while. Short-eared Owls would sometimes hunt over the rough grass round the edges of the pits and Green, Common and Wood Sandpipers were regular passage migrants. The area was also good botanically, many aliens being found among the vegetation. I remember in particular finding a number of Pigweeds, (*Amaranthaceae*), growing there. A substitute 'wader pit' was developed alongside the M4 near Theale in the 1980's and although a number of species did pass through on migration it did not have the exceptional quality of Manor Farm and has now been filled in.

It used to be possible to see Grasshopper Warblers in Sulham Woods - indeed several pairs bred there in the early 1970's. Now that the conifers have grown up the site is no longer available. This bird has become much scarcer nationally in the last 20 years or so, for reasons not fully understood, though probably due to loss of suitable breeding habitats or drought in its wintering area in Africa.

I worked near Regent's Park in London from 1970 to 1993 and documented changes over that period. The habitat itself changed little but Great Crested Grebes were very rare visitors until 1971 when the first nest was found. They then bred annually in increasing numbers. One particular area was good for Spring and Autumn migrants, some quite unusual. Firecrests, Pied Flycatchers, Sedge and Reed Warblers were noted beside the usual Chiffchaffs and Willow Warblers. Even Black Redstarts and Grey Wagtails were to be seen around the building in which I worked. This shows that birds will gravitate particularly to an 'oasis' like a park in a large urban environment and adds weight to the concept that birds are increasingly drawn to parks and gardens in urban and suburban areas as the countryside becomes more and more subject to factory farming and monocultures. Even Buzzards and Ospreys could be seen passing through the great metropolis! In the late 1970's a new species was introduced to Regent's Park. Roesel's Bush-cricket arrived in some earth which was used to fill in around trees planted by the Park authorities.

At Aston Upthorpe on the Berkshire Downs I have monitored for nearly 30 years the changes in habitat which have had a remarkable effect on the flora and fauna. In the late 1960's and early 1970's there was no grazing regime. Upright Brome (*Bromopsis erecta*) dominated, to the exclusion of almost everything else. In winter up to a dozen Short-eared Owls hunted Field Voles in the valley and would sit under the Juniper bushes when resting. Under the stewardship of BBONT, mowing by Flymo, then grazing by cattle, then sheep took place. The Pasqueflower (*Pulsatilla vulgaris*) flourished, with nearly 300 blooms recorded in1974. There were at least 200 Burnt Orchids (*Orchis ustulata*) where previously there had been hardly any, this compares with a maximum of 20 to 30 today. The valley is now, if anything, overgrazed not least by Rabbits. They have multiplied enormously since developing resistance to myxomatosis. Chalk Milkwort (*Polygala calcarea*) has regained its former glory and now covers large parts of the valley in a blue haze in Spring.

Management has had a great effect at the Hartslock Reserve near Goring. There were a mere three flowering spikes of the Monkey Orchid (*Orchis simia*) in 1972, nowadays there are over 100. Cothill Fen, near Abingdon, has lost much of its former glory. It has dried out and requires intensive management to restore the water table. At Bix, near Henley, a policy of woodland clearance resulted in a sudden profusion of Lesser Butterfly Orchids (*Platanthera bifolia*) in 1972 where seeds must have lain dormant for years. At Homefield Wood, near Marlow, there were seven Military Orchids (*Orchis militaris*) in 1972, but after years of careful management there were 168 in 1997.

Porton Ranges in Wiltshire, which were visited in 1972 and 1974, are a microcosm of what chalk downland must have been like before modern farming methods and the application of fertilisers - a carpet of yellows and blues with a characteristic fragrance. It is likely to stay that way as the land belongs to the Ministry of Defence. An experiment was in operation at the time to see if the Great Bustard could be re-introduced to Salisbury Plain but it was unsuccessful as the bird needs a vast space in which to breed.

1972 was also an exceptional year for Quail which appear to breed in Spain before irrupting into Britain. They stay to breed again here before leaving for the south at the end of August.

My impressions of this period are that the chalk flora of the Berkshire Downs was much more varied and more plentiful than at present. Railway embankments and cuttings were much better maintained than now, with a correspondingly greater variety of flowers. White Mullein (*Verbascum lychnitis*) at Twyford and Cut-leaved Selfheal (*Prunella laciniata*) at Brill are examples.

Two rare and very attractive plants, Field and Crested Cow-wheat (*Melampyrum arvense* and *M. cristatum*) have vanished from their Bedfordshire and Cambridgeshire sites since the 1970's. Pheasant's-eye (*Adonis annua*) and Broad-fruited Cornsalad (*Valerianella rimosa*) have disappeared from the Berkshire Downs since those days, as has Shepherd's-needle (*Scandix pecten-veneris*) now nationally rare. Corn Cockle (*Agrostemma githago*) is no longer maintained in the corner of an arable field in Cambridgeshire. Cornflower (*Centaurea cyanus*) can only be seen in seed mixes planted on roadside verges until coarser species take over and eliminate it and in general arable weeds are barely clinging on in Britain today.

Red Squirrels have suffered badly since the 1970's when I used to see them regularly in north Norfolk until 1975 and in the Breckland where they still have a precarious foothold. They have retreated before the seemingly unstoppable advance of the Grey Squirrel, a marvellous opportunist and now a serious pest in woodlands and gardens.

For birds, however, the news is not all bad. The very attractive Little Egret, which I first saw in 1972 in Britain when it was an extreme rarity, has now started breeding here. At the right time of year over 100 can be seen going to roost at Thorney Island on the south coast. Cormorants were rare inland but have just started breeding in Berkshire and over 50 can sometimes be seen on gravel pits and reservoirs in the Thames valley in winter. Brent Geese, once severely hunted but now fully protected internationally, have become a common sight with flocks of 4000 not uncommon. Woodlarks, due to the increase in clear felling in plantations and other suitable habitats, have expanded fourfold since the 1970's.

Counter to this my experience of bird migration in the Isles of Scilly, where I have been in October for the past 20 years, leads me to believe that numbers of birds are substantially lower. Last year, maybe due to weather patterns, the lack of birds apart from residents was positively alarming and accentuated a trend noted by many.

I would like to share with you some of my experiences of 25 years ago, in 1973, which was a landmark year in many respects.

In January the annual visit to Staines and Virginia Water provided sights of a wintering Common Sandpiper, five Smew and Mandarin Ducks, while at Bow Beech Reservoir in Kent, there were three Smew and a Long-tailed Duck. Both Common Sandpipers and Smew are now increasingly seen due to our warmer winters.

In February there were the Bearded Tits at Manor Farm, a flock of Golden Plover at the Clock Tower café on the A4 and five Gadwall at Theale Pits. Gadwall were then rare, but are now seen in numbers up to 50 in winter.

The annual winter visit to Norfolk was rewarded by Snow Buntings, Short-eared Owls, Brent Geese, Common Scoter, Long-tailed Ducks, and Goldeneye on the north coast, very much what might be seen today. Scaup and more Short-eared Owls near Great Yarmouth and 50 or so Bean Geese at Buckenham, which is their only regular wintering site in Britain. At Walberswick, on the Suffolk coast near Minsmere, Rough-legged Buzzard, Hen and Marsh Harriers, Common and Velvet Scoters, a great Grey Shrike and a Red Kite, almost certainly a visitor from the Continent.

In April/May there were about 100 blooms of the Pasqueflower at Aston Upthorpe with 65 or so blooms of the Burnt Orchid. The Pasqueflower is 'hanging on by its fingertips', while the Orchid numbers fluctuate over the years. Over the Downs as a whole there were three to four pairs of Stone Curlew nesting, though nowadays, thanks to the scheme of leaving fields fallow, there are about eleven nesting pairs.

In May/June, a traditional time to pay another visit to East Anglia, a pair of Red-backed Shrikes, the first I had seen for 21 years, was breeding at the Winterton Reserve, a dune system to the north of Great Yarmouth. A Marsh Harrier, then very rare, and Tree Sparrows were seen. Bitterns were in evidence at Minsmere and at Westwood Marshes nearby 'booming' was heard. There would have been about five pairs breeding which compares with a present total population in the UK of eleven pairs in four sites. This is due to the progressive deterioration of their reedbed habitats, which the RSPB is attempting to rectify. At Westwood, a male Red-backed Shrike was feeding the female with bees, a part of courtship behaviour.

Before the RSPB bought the Reserve at Titchwell on the north Norfolk coast, a pair of Marsh Harriers bred there but have not done so since. This is inexplicable as the habitat is suitable! About twelve pairs breed in the UK now, an increase of about 100%. The Reserve is now threatened by global warming and rising sea levels, the freshwater marsh is likely to be infiltrated by salt water and on a recent visit I found that a dune system had completely disappeared.

Nearer home a Redstart was singing at Bix and at least two Snipe, indicating breeding, were at Kintbury marshes. Such events have not happened for some considerable time. A Hedgehog was helped into the side of the road. With greatly increased road traffic they are not often seen in Berkshire today. The reason for the plague of slugs and snails in 1998 - the worst in living memory.

Dartford Warblers and Hobbies were seen in the New Forest. Dartford Warblers were reduced to a handful of pairs after the severe winter of 1963 but are now up to an all-time high of about 1200 pairs and are breeding in Berkshire, Devon, Dorset and Surrey as well as Hampshire. Hobbies have also done well over the years, having doubled their breeding populations to an estimated 700 pairs throughout the UK.

Spotted Flycatchers, once a common summer visitor, are now quite scarce. They have 'crashed' by almost 75% since 1973. In a local garden, where they have bred for 40 years, they were absent for the first time in 1998.

A visit to the Berkshire Downs in July, in a small area near Aston Upthorpe, produced 30 to 40 plants of Pheasant's-eye, Rough and Prickly Poppies (*Papaver hybridum* and *P. argemone*), Corn Parsley (*Petroselinum segetum*) and Venus's-looking-glass (*Legousia hybrida*). The farm track on which they flourished has since been incorporated in a larger field, and because of the more intensive use of sprays and 'cleaner' seed corn, these plants have disappeared. Fortunately many arable weeds have long-lived seeds and they can return if fields edges are left unsprayed. There were also 21 Frog Orchids (*Coeloglossum viride*) in the Reserve at Aston Upthorpe, a rare sight nowadays. The Spiked

Star-of-Bethlehem (*Ornithogalum pyrenaicum*) is still at Ashridge Wood, it now has additional protection on private land nearby.

A visit to Kenfig Burrows found much the same floral delights as at present - about 100 Fen Orchids (*Liparis loeselii*) were a bonus, as were Round-leaved Wintergreen (*Pyrola rotundifolia*) and masses of the seaside form of the Wild Pansy (*Viola tricolor* ssp *curtisii*) . At Wootton-under-Edge there were four plants of Limestone Woundwort (*Stachys alpina*), less than at present, but the Cheddar and Avon Gorge flora was much as it is today. At Henley Road Chalkpit, Wild Candytuft (*Iberis amara*) and Red-tipped Cudweed (*Filago lutescens*) are still to be found, although the course of the road has been altered.

In August a memorable visit by the Society was made to the BBONT Grangelands Reserve. Among the superb chalk flora was Field Gromwell (*Lithospermum arvense*), Borage (*Borago officinalis*), Musk Orchids (*Herminium monorchis*), 200-year-old Box trees and Walnut trees. At Burghfield Gravel pits there were large numbers of Lesser Whitethroats, far more than the odd Whitethroat, whose numbers had crashed in 1969 after a drought in their wintering quarters in Africa. By contrast in 1998 Lesser Whitethroat numbers were dramatically lower, while Whitethroat numbers had recovered. At the celebrated Manor Farm, Green Sandpiper and Ruff were seen with Quail and Stone Curlew at Aston Upthorpe.

A pair of Red-backed Shrikes were seen at Weeting Heath in Norfolk. In the Brecklands, typical flora in full bloom included Spanish Catchfly (*Silene otites*), Field Wormwood (*Artemesia campestris*) and Sickle Medick (*Medicago sativa* ssp *falcata*). At Cley and Blakeney Point an easterly wind had caused Scandanavian migrants to be blown off course and two Barred Warblers, an Icterine Warbler, Pied Flycatchers and a Wryneck were seen. There were also some Little Gulls, a Glaucous Gull and various Skuas. At Minsmere, Bitterns and a Dotterel were in evidence, also a Red-footed Falcon. At Wisbech Sewage Farm, Black Terns, Knot, Little Stints, Greenshank, Spotted Redshank, Common, Wood, Green and Curlew Sandpipers, Bar-tailed Godwits and Ruff were all at one pit!

In September the usual Autumn passage of migrant birds produced Goldcrests, Willow Warblers and Chiffchaffs.

25 years ago a Barn Owl was a regular sight west of Reading and any trip to the New Forest or Wiltshire would almost invariably produce one or more. In October one was seen hunting near Salisbury. To see one now in any of these places is the exception rather than the rule. In Regent's Park there were six House Martins on the 18th. of the month, a very late date.

A fourth visit to Norfolk in November was the rule rather than the exception in those days. At Cley there were Snow and Lapland Buntings, Shore Larks, Whooper Swans, Glaucous Gull, Black and Red-throated Divers, a Grey Phalerope and several flocks of Brent Geese which have increased enormously in this area over the past 25 years. Nearby at Salthouse Heath was a Great Grey Shrike, about six winter in the UK but numbers fluctuate, and a Rough-legged Buzzard from Scandinavia. About six to ten of these birds winter in Britain in a good year but they can be very elusive and wide-ranging. A large flock of Tree Sparrows and Barn and Short-eared Owls completed the picture. The 'regular' flock of Twite on the Yare estuary was seen, they are still there each winter. In the Reading area a cold snap brought four Bewick's Swans to Theale Gravel pits and at Woolhampton two Water Rails and a flock of Golden Plover were seen. There were also 34 Shoveler at the Burghfield pits, an unusually large number.

Thus ended an eventful year, it is interesting to note how it compares with a diary of 25 years later.

There are some highlights from the following years which are worth mentioning. At the end of August 1974 on the east coast of Norfolk after winds from the west there was a change of direction to the east, a light breeze with some sea mist, ideal conditions for 'Drift' migration of birds from the Continent and Scandinavia. I walked along the shingle bank from Cley to Blakeney Point on the 30th. and it was literally 'raining' birds from the sky as I sat down to eat my lunch half-way along the beach. In the three mile stretch between the two points I estimated that there were about 200 Pied Flycatchers, at least 400 Wheatears, 15 Wrynecks, Redstarts, Icterine Warblers, Red-backed Shrikes and many other species. On returning to Great Yarmouth later in the day every single ornamental bush on the sea front had at least three or four migrant birds on it, however small it was! I have not experienced this phenomenon to the same extent since then.

In 1977 there was a magnificent display of Cornflower (*Centaurea cyanus*) resulting from new gravel workings on the edge of the M4 at Theale, so unearthing the legacy of a bygone era in agriculture. I was privileged to witness another very rare event, a Hoopoe feeding a young bird at a nest hole near Thursley Common in Surrey. After roadworks to widen the A142 near Soham in Cambridgeshire a strange plant appeared, it grew and grew to almost twelve feet in height and proved to be the Fen Ragwort (*Senecio paludosus*). It proved the immense longevity of some plant seeds in the dormant state. It was the year of the Coypu - as far as East Anglia was concerned. A rodent Imported for the fur trade, on escaping it had proved to be very destructive, causing tremendous damage to banks and dykes controlling the waterways. Fortunately it proved possible to eliminate it by a sustained campaign of trapping. The year ended on a 'high', as on Christmas Eve I discovered a Ring-necked Duck, a rare migrant from North America, at one of the Theale Gravel pits. I had to report it to the Rarities Committee. (By chance it was at this same pit that I flushed a Bittern from the path while doing a duck count on January 1st. 1995!).

On a Spring holiday to North Wales in 1978 I was fortunate to see 32 Roseate Terns on the Lleyn Peninsular. They were in a small flock away from their main breeding grounds in Anglesey. They are probably one of the UK's most attractive and elegant birds, but there are now only about five breeding pairs in the whole of mainland Britain. In August there were no less than 60 Black Terns at Theale Main pit.

February 1979 saw a mini-invasion of Red-necked Grebes, due to a cold spell in Europe. They even gravitated to the Thames at Pangbourne and to Kensington Gardens in London. I went to see an Iceland Gull which wintered in New Brighton on Merseyside for a record 31 years. At this time also there was a Black-browed Albatross in a Gannetry on Hermaness in Shetland which by the 1990's had been there for about 25 years. This is what comes of crossing the Equator into the Northern Hemisphere and not being able to get back.....

In the Spring of 1980 a squeaking noise in a large wooded garden in Dummer, near Basingstoke, at first thought to be a malfunctioning pump, turned out to be a Scops Owl from Southern Europe. It was a very rare visitor and of course attracted the hordes with torches and spotlights. The local hostelry enjoyed several times its usual trade all summer!

Looking back through my records some trends are noticeable. Those concerning plants are often abrupt, for instance where a site is ploughed or a road verge altered and a rarity disappears. With birds, changes are often subtle and more gradual. Swallows and House Martins seem much less common nowadays than they were about 30 years ago. Even Swifts seem to have reduced in numbers. House Sparrows and Starlings, once reaching almost plague proportions have diminished sharply over recent years. The demise of farmland birds is now well documented, but raptors such as the Peregrine, Hobby and Sparrowhawk have all made a recovery since the DDT scares of the 1960's and numbers are now at an all-time high. The dramatic decrease of the Spotted Flycatcher recently may be permanent and Cirl Buntings, on the edge of their range in Britain, may never be able to re-colonise former areas because of modern farming methods. They were at Chinnor and High Wycombe until the mid-1970's but are now confined to pockets in Devonshire and Cornwall. The reasons for the demise of the Red-backed Shrike as a breeding bird in Britain is less clear, but I suspect that it is the loss of habitat coupled with the decline in large flying insects for food. Savi's Warbler, with about five breeding pairs in the 1970's, has now virtually disappeared. By contrast, Cetti's Warbler which first appeared as a breeding bird in the UK in 1972, since then has spread to many suitable areas of marshland and scrub in the south of England and East Anglia.

Butterflies, during the period of 30 or so years, have had mixed fortunes with the Small Pearl-bordered Fritillary, the High Brown Fritillary and the Large Tortoiseshell having decreased dramatically. The Essex Skipper and the Comma have gone from rarities in the 1960's to being widespread in suitable areas today.

I could go on but personal experiences are not the same when recounted during the course of a talk. Suffice it to say that for me my notebooks made extremely interesting reading. The records, looking back over the years, provide valuable information and show trends of how plants, birds, insects and mammals have fared, both locally and nationally and I would commend the keeping of such records to everyone interested in all aspects of natural history.

BEAUTIFUL WINGS

Roland Ramsdale

Many of us have been delighted by the colours and pattern of the wings of a butterfly or the bright blue flash on the wings of a *Calopteryx* damselfly fluttering in the sunshine. Some of us have even marvelled at the delicate beauty of the wings of a lacewing, especially if we have looked at it closely or used a lens to get a better view.

Close Scrutiny

The dipterists and hymenopterists amongst us will have examined the wings of their specimens under a low power microscope to look for the veins or hairs characteristic of a certain species. However this close scrutiny of a small area often does not allow the beauty of the whole wing to be seen. Photographs are possible, but the high magnification needed and difficulties of reflection from the transparent surfaces mean that we do not often see many published.

Full Page Picture

I prefer to work with an A4 picture of the wing. I scan the wings of insects into a computer using a scanner designed for digitising 35mm photographic slides. The images can then be viewed on screen or printed.

The wing is placed on a glazed slide mount in place of the film and scanned. It takes about a minute to scan a wing. This is far quicker and more accurate than drawing.

If a 'perfect' image is required the removal of minor blemishes, replacing missing portions, and hiding minor tears takes some time – but as it is an electronic image that is being manipulated the occasional slip does no permanent damage.

Surprises

I have had some surprises. Have you looked at the veins in the fore-wings of a grasshopper? What about the beauty of a cockroach? The hidden pattern in the elytra of a cockchafer or in the hardened portion of the wings of a shield bug? The long fine hairs on every vein of the wing of a lacewing?

Types of Wings

Different orders of insects have very different wings.

Flies have only one pair of wings; their hindwings are modified into halteres which serve as a kind of gyroscope enabling them to perform intricate aerial manoeuvres.

Bugs are divided into two groups, the *Holoptera* have both pairs of wings membranous whilst the *Heteroptera* have the front $^{2}/_{3}$ of the forewing thickened and hardened but the back $^{1}/_{3}$ membranous.

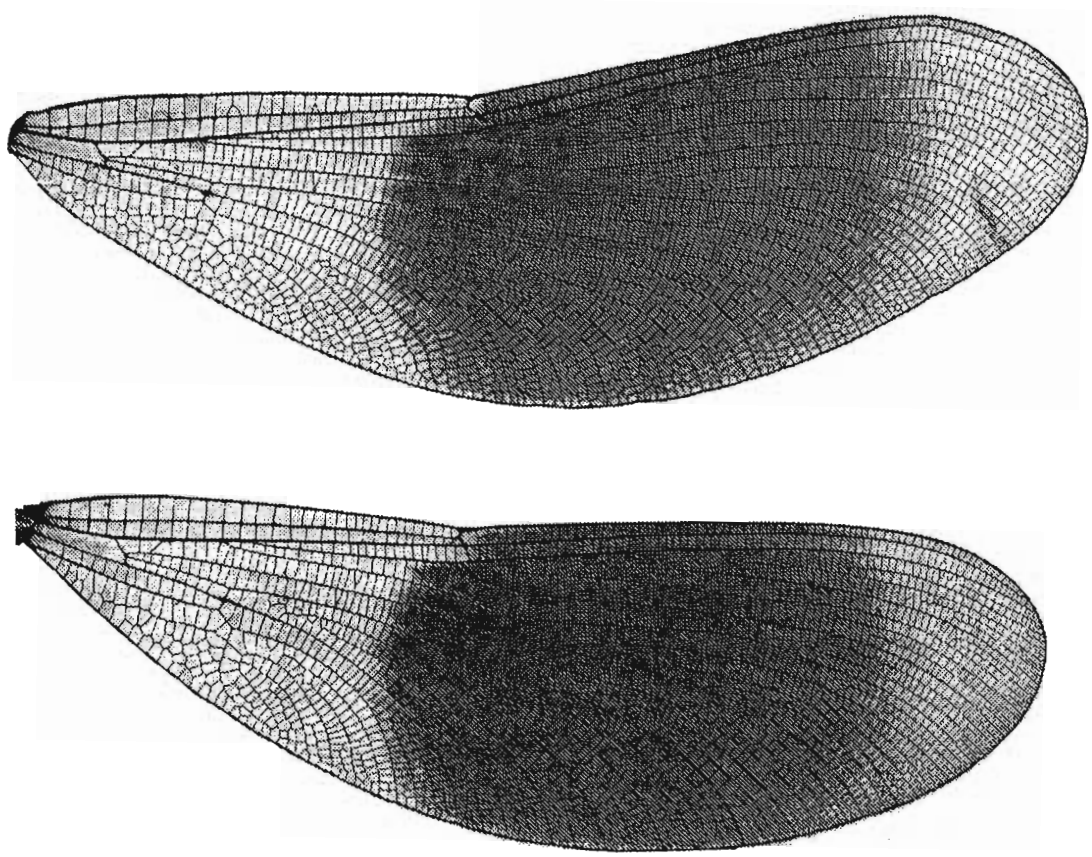
Beetles have hardened forewings called elytra and membranous hindwings.

Bees and wasps have a row of hooks on the back edge of the forewing to link it to the hindwing keeping them together in flight.

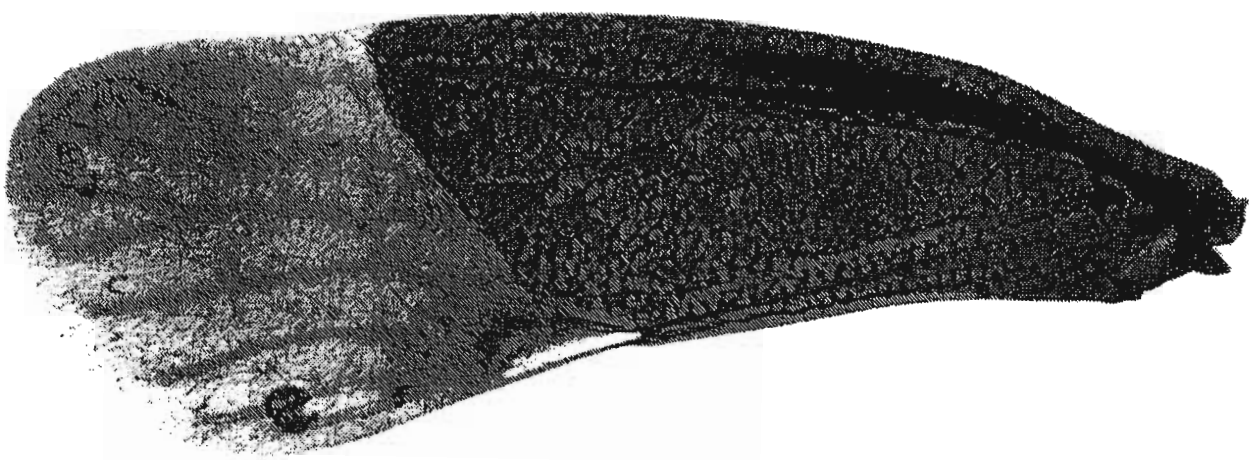
Butterflies and moths have scales on their wings whilst **caddis flies** have hair covered wings.

What we can learn from wings

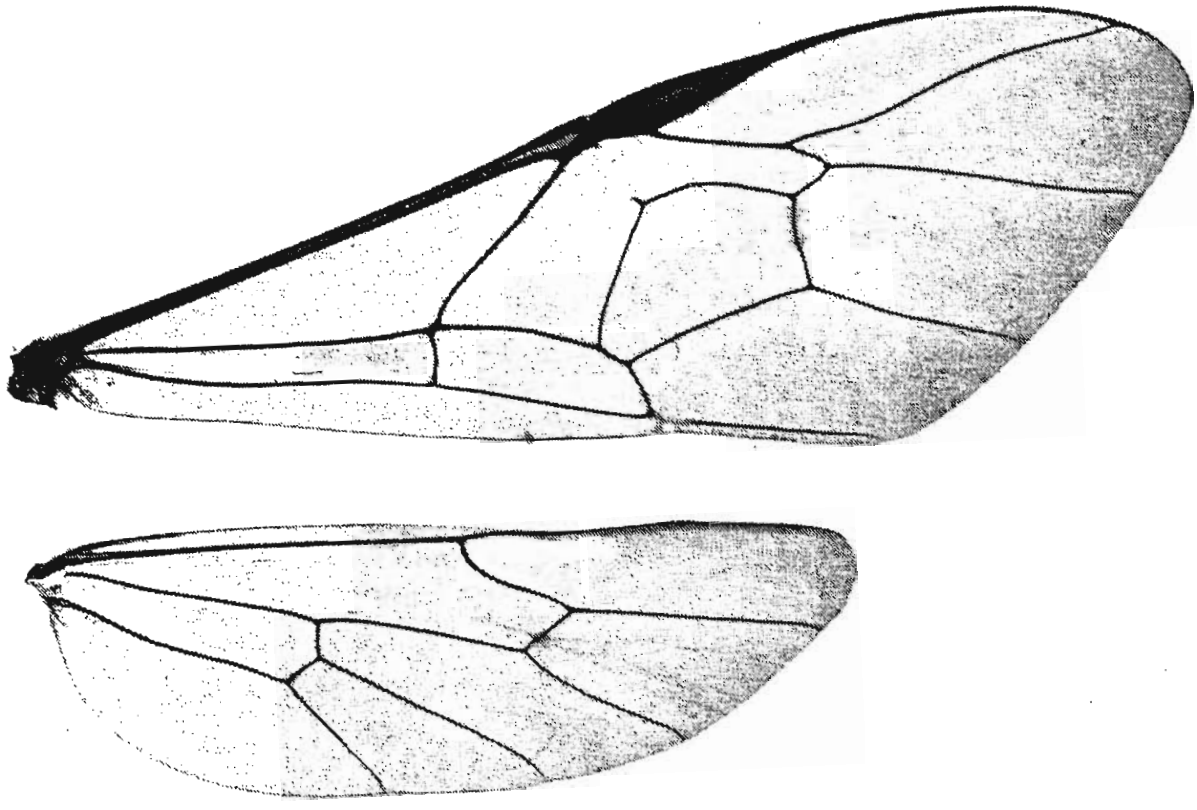
You can often determine the family of a fly, and sometimes its genus, by its wing-veins. Hoverflies have a pair of cross-veins parallel to the outer border of the wing. The hoverfly tribe, *Eristalini*, have a distinct loop in one of the veins. Occasionally species can be distinguished by a characteristic of the wing veins e.g. the only damselfly with a nearly rectangular discoidal cell is the White-legged Damselfly, *Platycnemis pennipes*.



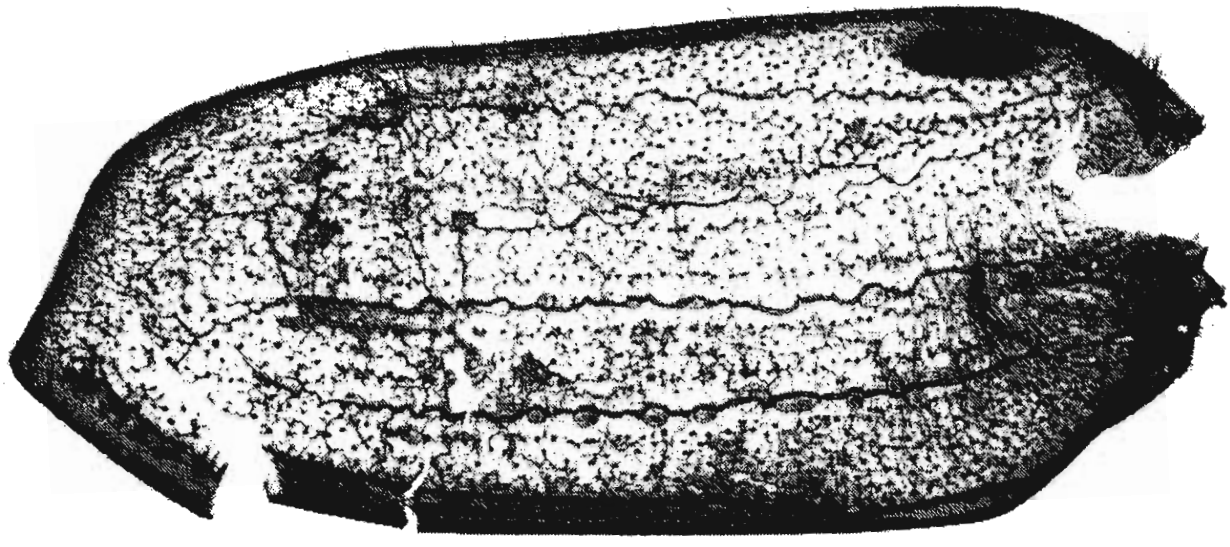
The Banded Demoiselle *Calopteryx splendens*



Forewing of Sheild Bug



Ichneumon *Ophion* sp.



Forewing of small species of Cockchafer

Comparison of Techniques for Looking at Wings

Scanner	Macro Photography	Microscope
Fast results - easily printed	Delay in getting prints or slides developed	Drawing is very slow – photomicrography?
Images relatively easy to touch up	Cannot replace missing bits of wing	Can draw as if perfect specimen
Annotation easy – including both graphics and printed text	Annotation spoils a good print and has to be hand drawn with handwritten or separately printed text	Annotation can be done on a photocopy of a drawing, but has to be hand drawn with handwritten or separately printed text. However it is possible to draw an enlargement of a single feature.
Can see whole wing at one time – but some wings can be too large to scan (>24x36mm), and some too small to get enough detail at 2700 dpi	Can adjust to fill the frame with any size of wing	Limited area visible at a time under high magnification
Can scan somewhat opaque wings by increasing the brightness	Backlighting opaque specimens strongly enough is difficult without unwanted light getting into the camera lens	Transmitted light unlikely to be of use for opaque specimens
Controls for brightness, contrast, and gamma are provided	Good lighting is essential	Good lighting is essential
Object must be flat or capable of being flattened	Can use with 3D objects – but depth of field limited	Depth of field less than for macro photography – but can refocus on new area of interest
Limited maximum resolution (2700 dpi in the case of the Nikon Coolscan. Professional machines with higher resolution are available at considerably greater cost)	Limited by lens quality, but will usually be quite adequate if accurately focussed	Even a cheap microscope is likely to have better resolving power than either of the other approaches
Limited magnification	High magnification can be difficult to light and vibration can be a problem	Much greater range of magnification available with even moderate set ups
Limited contrast (128 greyscale)	Limited only by type of film used	Brightness of the background can be troublesome if using transmitted light
Transmitted light only	Frontlighting can be used for opaque specimens	Frontlighting can be used for opaque specimens
Dust can be a problem	Reflections more trouble	No permanent record of the image

The precis of a talk on Otters appeared In The Reading Naturalist, No. 46. and it is appropriate that a precis of Dr. Strachan's talk, given to the Society on 22 January 1998, should complement that article as the life histories and habitats of otter and mink are closely linked in this country. We are most grateful to Dr. Strachan for permission to publish this article.

Mink and its Effect on British Wildlife

Dr. Rob Strachan

Oxford University Zoology Department

Since the introduction of the North American mink to this country by fur farmers much has been written about its menace to native species, particularly mammals, and it has been portrayed as villainous vermin. Certainly its numbers have grown alarmingly over the past 50 years. It has been blamed for the disappearance of the otter from many of its former habitats. However, as a result of work carried out by the Wildlife Conservation Research Unit at Oxford, this is not now thought to be true. Nevertheless it has certainly had an adverse effect on the number of water voles, a species now in serious decline.

The mink is a semi-aquatic animal with a coat of very fine hairs which number 50 to 60 thousand to the square centimetre. Air is trapped by these hairs when it enters the water and they serve as an excellent insulator. It sits relatively high in the water unlike the otter which is largely submerged. It is about half the size of the otter and about one tenth of its weight. The mink has a pointed face, unlike the otter which has a broad muzzle. The tail is short and bushy while that of the otter is long and tapering.

Mink can be recognised individually by patches of white on their chins, undersides and legs and while the usual colour is dark chocolate brown, some animals can be lighter and a grey-brown may be encountered.

American mink, to be farmed for fur, were first imported into Britain from Canada and Alaska in the late 1920's. Until the end of the war it was only a small industry. The business expanded and reached a peak of about 700 farms in the early 1960's with an annual production of about 160,000 pelts. In 1962 the provisions of the Destructive Imported Animals Act were expanded to include mink. This tightened the conditions under which mink were kept in order to prevent their escape. The number of farms decreased and by the mid 1980's only about 50 were still in existence. There has been a further decline and today there are about 30 to 40 farms housing 3000 to 4000 animals.

In the 1930's some of the mink had escaped from captivity but breeding in the wild was not confirmed until 1957 on the River Teign in Devonshire. Populations became established in the 1960's in areas where there were numerous mink farms. The spread continued and by the 1970's the MAFF ceased costly and ineffective efforts to control feral mink. By the late 1980's they were present throughout almost all of Britain. Today, despite many thousands of mink being trapped and shot in Britain every year, their numbers are not diminished and eradication from an area is difficult and may only be temporary.

In the region of the upper Thames and its tributaries there have been 160 sites under observation for a number of years. Mink were scarce in 1975, but numerous by 1995. It was found that on one particular stretch in the non-breeding season there were six females and three males. During the breeding season there was only one extra female but a number of extra males.

In studying their life pattern animals are captured and fitted with a radio collar which enables their movements to be followed. They are easy to catch, using sprats as bait, in traps camouflaged with hay and set in waterside willow tree roots. They are most active in winter when mating, known as rutting, takes place. The male is considerably larger than the female and during the mating season he shakes his mate to stimulate ovulation. The female stays on heat for about three weeks during which time the male stays with her. Four to ten kits are born, usually in willow tree roots alongside the water. They are completely helpless at birth and stay in the den for a month. It is June before they appear above ground and stay with their mother until late August or September. Indications of the presence of mink can be seen by tracks in the soft ground by stream sides and by droppings. Otter tracks are markedly larger than mink and otter spraints are sweet smelling whereas mink droppings are extremely malodorous.

Rabbits provide the main source of food for mink, but fish and birds are also taken, particularly birds which nest near stream sides such as moorhen and coot. In Scotland predation of puffins and terns can be

serious if mink are present near nesting colonies. Crayfish are taken and since the native species is in decline anyway this could be another factor in hastening their disappearance from our waters.

At present the number and distribution of mink in this country would make their extinction an impossible task. Only in special circumstances, such as the protection of seabird colonies on offshore islands, is extinction by trapping and killing a practical proposition.

Of particular concern is the effect of mink on the declining population of water voles. In North America the musk rat is one of the chief sources of food for the mink and as it is about the same size as the water vole, it is not surprising that the vole becomes an important item in the diet of the mink in Britain. While feeding young, the female searches the banks both upstream and downstream from the den. If a colony of voles is discovered it is almost certain that all its members will be killed and eaten over the period of raising the kits.

Vole populations have declined, not only from mink predation, but for a number of other reasons. Farming practices such as over-grazing and clearing of vegetation along stream sides have destroyed habitats essential for voles. Rivers have been straightened and banks strengthened, again removing the necessary vegetation which voles need for food and cover.

The level of water in rivers has been affected by extraction and to some extent by recent droughts. The degree of pollution over the last half century has had an effect on wildlife. Both of these factors will have led to a decrease in the number of water voles.

Water voles may be caught and eaten by a variety of predators. Owls regularly feed on voles, as do foxes, but there are several ways by which the water vole is able to survive predation from native species. Some will not enter the water, others are too large to enter the burrow . The alien mink is at home in the water and is small enough to get into the vole's burrow. In the upper Thames valley, in the years between 1975 and 1995, observations have shown that where mink have increased there has been a sharp decline in the vole population.

However where the habitat is suitable for water voles to exist in good numbers it is possible for a balance to be struck between water vole and mink. In some parts of Britain where there has not been destruction of habitats favourable to the water vole, the population has not declined and we must ensure that such a situation continues. Where there has been destruction, incentive schemes for farmers and restorative measures by River Authorities could lead to an increase in their numbers.

Editor's Space Filler

What's in a name?

As well as the accepted English names used in the Botanical Report, there are many plants with old country names, some very local, others widely recognized. There are several used for more than one species, either in different parts of the country or quite often in the same region. 'Cuckoo Flower' is obvious for many plants which flower in April. 'Granny's Nightcaps' or 'Granny Bonnets' is less well known but Donald Grose, in 'The Flora of Wiltshire', gives these names for four plants; Columbine, Wood Anemone, Water Avens and Field Bindweed. I suppose the flowers were thought to bear some resemblance to one-time old ladies' head wear. 'Bachelor's Buttons' is another example. The species so-called were both Red and White Campions, Crowfoot, Buttercup, Field Scabious and Burdock. Gerard, in his Herbal, published in 1597, writes "The similitude these flowers have to the jagged cloath buttons anciently worne----gave occasion----to call them bachelour's buttons". No doubt some members will know other examples and I would be interested to hear of any which refer to local plants.

When I joined a Natural History Society in Wiltshire in the late 1950's, an old lady who was a member, often used the local country names. I found it most confusing to have plants of very different appearance called by the same name. Fortunately there was usually someone present who could translate to the name used in Collins Pocket Guide to Wild Flowers, my first and still used book of the British flora.

A Preliminary Survey of the Macrofungi of Greenham Common

Malcolm W Storey

Introduction

Greenham Common lies to the South-East of Newbury. It is approximately two and a half miles long and almost a mile across at the widest point. The site is contiguous with BBONT's Baynes and Bowdown woods and the Old Bomb Dump (which is soon to be BBONT's too). With the gravel pits of Chamberhouse Farm, the River Kennet and Thatcham Reedbeds it is a wonderful wildlife area. West Berkshire Council are to be congratulated on their vision in bringing it all together.

Restoration work on the site is proceeding apace. The old runways are almost all gone now. Ripped up, recycled and used to build the Newbury Bypass - which saved some old water meadows to the west of the town. The fuel storage tanks have been raised leaving deep holes now half-full of water. The area is currently classed as a demolition site (hard hats and fluorescent jackets) because of these dangers and the heavy equipment in use. There is as yet no public access, but when the restoration is complete it is intended that there will be full public access. The boundary fence is still in place and will eventually be replaced by a normal stockproof fence to contain the grazing animals which will be used to maintain the habitat.

During October 98 I made six visits to the site during a short survey commissioned by West Berkshire Council. The fungi were recorded in the field where possible or taken home for more detailed study. Each visit covered a separate part of the site.

Greenham Common contains a range of grassland and heathland habitats, as well as some woodland outside the boundary fence. The present survey concentrated on the area within the old runways. This was kept mown short while the airfield was in use for visibility and fire safety which has resulted in a large expanse of grassland with patches of low herbs and heathland.

Large areas consist of almost pure stands of a single species, especially Kidney Vetch (*Anthyllis vulneraria*) probably due to much of the vegetation having arisen on bare ground within the last 50 years following earth moving operations to level the site before the runways were built. Another legacy of the building process is high calcium levels from the concrete making. Thatcham housewives used to complain of their washing coming in stiff off the line from all the cement dust blowing in the air.

Despite this there are several patches of heathland, some quite large. These are dominated by Gorse (*Ulex europaeus*) or Heather (*Calluna vulgaris*). The heathland is often surrounded by heathy grassland with Woodrush (*Luzula campestris*). There are also some small areas of Lichen Heath (dominated by *Cladonia* spp.)

The wide range of grassland and heathland habitats should support a correspondingly diverse mycota and this was found to be the case.

The Fungi

The main groups of grassland fungi are: Earth Tongues, Puffballs, Mushrooms, Coral Fungi, Waxcaps, *Dermoloma* spp., *Entoloma* sl. and *Mycena* sl. (sl is the abbreviation for *sensu lato*, meaning "in the broad sense")

Two Earth Tongues were recorded and both are common species generally. Earth Tongues seem to have become much less common in the last few decades as they are among the most sensitive to agricultural improvement. Two species of Puffballs were recorded, both quite common.

Only two species of Mushrooms (*Agaricus* spp.) were recorded on Greenham Common, and these are among the commonest species.

Four Fairy Club fungi have been found on Greenham Common. One of these seems new or aberrant and requires further investigation. The other three are the commonest species and can be found in other grassland sites in the area.

Twelve Waxcaps have been recorded on Greenham Common. This is not an exceptionally high figure and most of the species occur at other sites in the area, although I have no other local records of *H. russocoriacea* or *H. virginea* var *fuscescens*. Some of the other sites have *Hygrocybe punicea*, which is the strongest indicator of unimproved grassland but is so far absent from Greenham Common.

Two *Dermoloma* spp were recorded, one of which (*D. phaeopodium*) is quite uncommon.

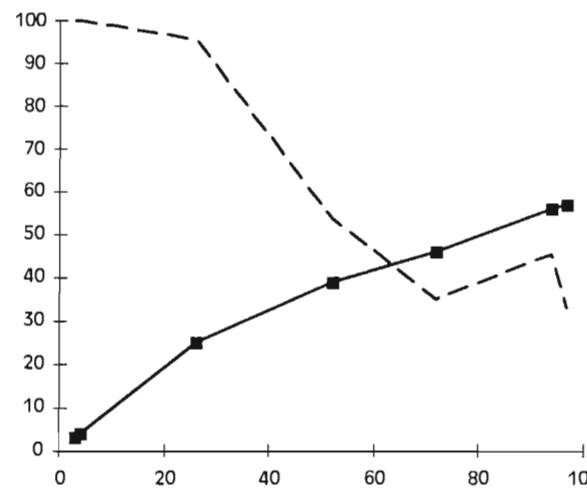
Fifteen species of *Entoloma* sl. have been recorded on Greenham Common. *Entoloma* spp are generally quite scarce on the sites around Newbury, and Greenham Common is by far the best site I've seen locally. It is probably one of the best in the south of England.

Five species of *Mycena* sl. were recorded on Greenham Common, and they are all common species. Apart from *Mycena pura*, which is common in woodland, they are all found in other grassland sites in the area.

Estimating Biodiversity

In a recently published 21-year survey of part of Abernethy Forest, of the 502 species recorded, 34% were found only once and the authors conclude that "21 years of recording are insufficiently reliable to estimate the biodiversity of this site." (Orton & Tofts 98)

With this thought in mind, the following graph shows the cumulative number of species against the cumulative number of records for macrofungi found during the six visits of the survey.



The horizontal axis is the total number of records. The solid line shows the cumulative number of species found while the broken line shows the percentage of additional species in each sample. When the solid line levels off and the broken line approaches zero, most of the species will have been found.

The graph clearly shows that more species remain to be found and over 30% of the species found in the next sample a likely to be new to the list. The final list will probably be 50% to 100% larger than the current list. Thus it would be worthwhile to continue the survey of the grassland areas next season.

Importance of Greenham Common as a site for grassland fungi

It is too early for any final answers on the significance of Greenham Common in this context, but the present data give an initial impression. The significance of the site can only increase in future as further species are added to the list.

Local Significance

There are a number of sites in the Newbury area that support a range of grassland fungi. Most of the best sites are churchyards because SSSI's and nature reserves are rarely mown or grazed short

enough for toadstools. Greenham Common shares most of its fungi with these sites, except the *Entoloma* spp. where Greenham stands out.

National Significance

The British Mycological Society is conducting a survey of Waxcap grasslands (Rotheroe et al 96). They are developing a "CHEG" profile, (M. Rotheroe, pers. comm.) which consists of the number of species in the groups: *Clavariaceae, Hygrocybe, Entoloma* and *Geoglossaceae*. (*Dermoloma* is added to the *Hygrocybe* count.) Greenham scores C4, H14, E14, G2. This is a very respectable score, with a particularly high *Entoloma* value.

The following table shows the data for four of the best waxcap grasslands known to date (all based on several year's recording), followed by the first year's results from Greenham.

Site	*Clavariaceae*	*Hygrocybe*	*Entoloma*	*Geoglossaceae*	Reference
Llanerchaeron	4	22	5	1	Rotheroe 95
The Patches	3	33	17	0	Marriott in Rotheroe 95
Smalley's Farm	16	29	21	4	Ridge in Rotheroe et al 96
The Blorenge	3	27	0	4	Rotheroe (pers. comm.)
Greenham Common	4	14	14	2	

(Smalley's farm is said to be the best site in England and The Blorenge the best in Wales.)

If the Greenham list expands by 50% to 100%, as anticipated, this would put it in the top handful of UK sites.

International Significance

The best UK grasslands are of international importance. Our clean air suits these nitrate-sensitive fungi.

Boertmann (1995) quotes a "Rald" score for *Hygrocybe* spp. whereby any site with 17-32 species or 11-20 during a single visit is of national importance in Denmark. Greenham Common scrapes in with 11 spp during the first visit to each compartment (the final species was added later in the year.) However, Denmark, along with other countries, has a large pig farming industry. This gives rise to high levels of air-borne nitrogen compounds which have badly affected grassland fungi (as well as orchids and heathland) so higher scores are expected in the UK.

Acknowledgments

I am grateful to West Berkshire Council for funding this work and to the Rangers, especially Mark Hampton for arranging access and information about the recent history of the Common.

References

Orton, P.D.O. & Tofts, R. 1998, The Species Accumulation Curve for Agarics and Boleti from a Caledonian Pinewood. The Mycologist, Vol 12(3), Aug 98

Rotheroe, M. 1995, Saving an Historic Lawn: Conservation Progress Report. The Mycologist, Vol 9(3), Aug 95

Rotheroe, M., Newton, A., Evans, S. & Feehan J. 1996, Waxcap-grassland Survey. The Mycologist, Vol 10(1), Feb 96

Malcolm Storey now runs a site on the World Wide Web (WWW) with lots of pictures of insects, plants and fungi (including many fungi from the Greenham Common Survey). The address is:

http://195.166.55.201/vfg-uk/Intro.html

NETTLEBED AND DISTRICT COMMONS

Rod d'Ayala

Background information

Nettlebed and District Commons are a series of 8 commons stretching from Nettlebed in the north to Peppard in the south. The Commons are owned (in the main) by the Nettlebed Estate and administered by the Nettlebed and District Commons Conservators. BBONT manages a significant portion of the Commons for and on behalf of these two bodies, with grant aid from the Countryside Stewardship Scheme. The funding is for 10 years, and the scheme is entering its fourth year.

The Commons cover 560 acres (227 hectares), consisting of woodland (ancient and secondary), grassland, heathland and a wet marshy area. There are numerous ponds, especially on Nettlebed Common. Being mostly acidic the commons support a range of habitats very unusual in Oxfordshire, a county that is mostly either neutral or calcareous in nature. The areas of good open habitat were reduced to tiny fragments following the abandonment of traditional management and historical land use. Current conservation management is concentrated on improving, linking and enlarging these relatively small surviving fragments of open grassland, heathland (dry and damp) and marsh. Though small they form a high proportion of the surviving remnants in Oxfordshire, and as such are very significant.

Heathland

Heathland is a very rare habitat in Oxfordshire. There are only a few acres left, with those areas that remain being small and fragmented. Some of the best remaining sites occur on the clay cap of the Chilterns. Nuffield Common and Maidensgrove and Russells Water Commons retain a lot of their interest despite over management of the former (the site of Huntercombe Golf Course) and no management in the latter (leading to Bracken and tree invasion). In Oxfordshire Bell Heather only occurs in the South Chilterns - in and around the Nettlebed Commons area.

The best remaining heathland and acid grassland on the Nettlebed Commons is to be found at Peppard, where there is a fine stand of Gorse, Dwarf Gorse, Heather, Bell Heather and its associated herbs (here and at Kingwood Common are possibly the only extant sites for Dwarf Gorse (*Ulex minor)* in the county). Recent management has been concentrating on the removal of trees and scrub, and the control of Bracken by cutting and spraying. This Common was a typical grazed common. Much of the interest has survived because of the relatively recent end to grazing, and the presence of a 9 hole golf course which kept some of the area open. Only a relatively small area of this Common will be true heathland, because of the nature of the soils.

On Kingwood, grazing has been abandoned for longer and the traditional management regime somewhat disrupted by being used as a camp area in the Second World War. Fires kept some of the areas open till fairly recently but Birch, Oak and Bracken have invaded en masse since. Only isolated clumps of Heather and herb rich areas remained before management began. Management has been to enlarge and link up these open areas by controlling Bracken and removing trees. As of today, the area in places is beginning to look like heathland again (very grassy, but heathland). With supplementary seeding and planting the heathers are coming back. Disturbance often leads to the germination of previously buried seeds. For example, one of the best areas on Kingwood is under a power line and along an adjacent road verge. Eventually some 12 hectares will be managed as heathland on Kingwood.

Nettlebed Common over much of its area was really an industrial landscape, a source of sand, clay and wood, the raw materials for the local tile and pottery industry (see "Marsh and Ponds", below). Under these conditions, plants and animals had to fit in with and between the work on the Common. One kiln still remains, just off the village green. There is one small fragment of damp or wet heath, possibly the only area of its kind in the county. There is however, a fine area of old grazed common, complete with anthills, that has survived after being isolated from the main village green in the early part of this century. The main green is now mown and consequently has lost much of its interest. In total there will be about 7.5 hectares of heathland type habitat on Nettlebed Common.

Grasslands

The gradation between this habitat and heathland is often subtle. Under the current Stewardship Scheme the "village greens" of Nettlebed and Peppard Commons are mown (hay crop) with a break every third year. Much of the recently opened-up heath on Kingwood is very grassy. As time goes by the species composition of these areas will change.

Marsh and ponds

The marshy area is on Nettlebed Common (4 hectares) and is a former clay diggings. The abandoned pits have been colonised by acid plants of damp or wet situations. One of the key groups is the mosses, which include, for example, three species of Sphagnum. This group is very rare in the county as wet acidic habitats are even rarer than heathlands! Clay was dug from the centre of the Common, from the area around Windmill Hill. This is a large deposit of London Clay ideal for brick and pottery making. The pits were finally abandoned in the late 1930's, and since then have gone through a succession of habitats culminating in the dominance of trees today. Management has been two pronged. Firstly, to remove trees from the basin areas and go back to an earlier part of the succession, when the pits were open with a fringe of trees on the banks and spoil heaps. At the same time the water table has been raised to re-flood the area which has been drying out due to drainage and the invading trees. The raised water table should help kill off some of the trees. The combination of permanent water bodies and areas that successively dry out as the summer progresses (to flood again in winter) provide a wide range of niches to suit all sorts of life. Some areas have been left scrubbed up to accommodate those species that like wet, shaded, wooded habitats.

Ponds are mostly to be found on Nettlebed, both in the marsh area (see above) but also on Priest Hill. Much of this area was dug over to supply sand and clay, and there are various sizes, shapes and depths of ponds. They vary in shadiness and permanence. Thus a whole range of niches are present, suitable for a variety of life. Ponds also occur on Kingwood Common.

Woodlands

The dominant habitat over the commons is woodland. Some of these are ancient woodland, mostly those areas in and around Highmoor. These include areas of abandoned wood pasture, with some fine venerable old pollards. The bulk of the woodland is however secondary, which has developed since traditional (grazing) management practices ceased and the area was abandoned during and after the Second World War. Much of the commons were cut over then, and after on Kingwood (the site of camps being used until the 1950's). This partly explains the dominance of fairly young secondary oak and birch woodland over the bulk of this common.

Flora and Fauna

Given the rarity of the habitats in Oxfordshire it would be expected that they would support equally uncommon species. The flora across the commons does indeed include classic heathland species, Heather (*Calluna vulgaris)* and Bell Heather (*Erica cinerea)* survived as small stands or individual plants. Both these species are beginning to increase again in areas cleared of bracken and trees. Some of the smaller herbs, e.g. Heath Milkwort (*Polygala serpyllifolia*) occur in one or two places only, others such as Tormentil (*Potentlla erecta)* are more widespread. Heath Spotted Orchids (*Dactylorhiza maculata*) survive in one location on Kingwood Common. Much work has gone into surveying the commons to find out where these species still remain, and these areas have been targeted in the first phase of clearing. Woodland plants occur on and near the old boundary banks as well as the older woodlands. However, much of the secondary woodland is species poor with a few plants dominating the ground cover. Because of the proximity of houses, and presence of old camps there are some well established garden escapes and aliens. Over 500 plant species have been recorded across the whole of the commons.

Given the importance of the heath and grasslands, an invertebrate survey has been carried out on the surviving open areas. This revealed very few indicators of heathland, highlighting the extent to which they had been isolated and fragmented, both locally from each other and from other heathlands in Oxfordshire, and beyond. It is hoped that with time, some invertebrates will re-colonise the recreated heathlands. There is a good range of woodland species, so management needs to be carefully targeted to avoid removing critical areas for these species, whilst recreating the open habitats. Some groups are fairly well known, e.g. butterflies. The commons support a good range of the more common species, and a few less common ones such as White Admiral and Purple Emperor. Again

classic heathland species, such as Silver Studded Blue and Grayling are not present, but with time perhaps they will colonise.

Reptiles and amphibians are well represented. The ponds on Nettlebed Common support Frog, Toad and at least two species of Newt, namely Great Crested and Palmate. The latter of these two is perhaps the rarest in Oxfordshire, an indication of the lack of suitable acidic ponds. There have been recent records for all four "common" reptiles with Grass Snakes and Common Lizards being the most widespread and abundant., Slowworms seem to be relatively scarce and there are few positive records for Adders, though they are recorded sporadically. All reptiles are relatively rare now, and it is hoped their numbers will increase as more suitable habitat is recreated.

There is a good range of typical, common birds and mammals, though little detailed survey work has been carried out. One species that is present is the Dormouse, which is currently on Nettlebed Common and in Highmoor Woods. There are older records from the other commons as well.

Kingwood Common is well known as a good site for fungi having been regularly forayed by the RDNHS over the years. Nettlebed Woods, which include the common land between Nettlebed and Highmoor, are also good for fungi.

In summary the Nettlebed Commons form a series of commons across South Oxfordshire, which provide a range of habitats, home to a wide variety of wildlife. Some of this variety has been lost with the advance of trees and bracken across the grass and heath areas but in the next few years this process will be reversed to recreate the mixed landscape of historic times. Being common land they are open to all, to roam and explore.

I am indebted to Alan Brickstock for this article. Editor

Robin's Pincushions, Moss Galls or Bedeguars

The '---round, soft, hairy sponges---such as grow about the prickles of the Dog-Rose' (Gerard) are galls caused by the larvae of a tiny wasp, *Diplolepis rosae*. They are common on the twigs and leaves of wild and cultivated roses and are found throughout most of Europe. Robin's pincushion galls are covered with long branching red or green hairs, and are sometimes clustered together to form, overall, a fist-sized ball.

A gall contains several chambers, each with a single larva, which pupates in it after summer. In autumn, the galls become hard and brown, and remain on the plant until the following year. The pupae over-winter in the gall, and the new wasps emerge around May.

Unlike most gall wasps, which have alternate sexual and asexual generations, producing different types of gall, this species has only a sexual generation. Nearly all the emerging wasps are females, about 4mm in length. Males are rare and reproduction is almost entirely parthenogenetic.

The mechanism of gall growth is not fully known, and even closely related species can produce very different types of gall. Some gall wasps produce no gall of their own, but lay eggs in the galls produced by other species. If there are too many aliens sharing the food provided by the gall tissue, the original larvae may starve to death. There are many insects, including some gall wasps, which use long ovipositors to parasitise the larvae within galls.

The word Bedeguar, sometimes spelled Bedegar, apparently comes from two Persian words and means literally, 'wind-brought'. The name was originally given to a thorny bush with white thistle-like flowers. Western herbalists applied it, in error, to the Milk Thistle. Later writers confused the derivation to 'wind-rose' and used the name to apply to Robin's Pincushion.

The herbalist Dodoens in 1578 said 'The spongious bawle---uppon the wilde Rose---is called by som Apothecaries Bedegar, but wrongfully'. In the Middle Ages, Bedeguars were thought to induce sleep if placed under the pillow at night.

THE RECORDER'S REPORT FOR BOTANY 1998

B.M. Newman

Records sent in this year were widely spread over our recording area and many plant families were represented. These records were collected by a small group of regular contributors, a praiseworthy effort (were other members put off by the weather?). For the last year of the century perhaps we could have more contributors. It would be interesting to look back at past reports and choose one or two plants to look out for. Do they still grow where they were reported to be, have they spread, or been crowded out by others?

From the EQUISETOPSIDA onward, the selection of records printed below is arranged according to the "List of Vascular Plants of the British Isles" by D.H. Kent 1992. Where a family name has changed the older name is in brackets after the modern one. An alien taxon is indicated by an asterisk (*) and the English names are from "English Names of Wild Flowers" by Dony, Jury and Perring 1986. Alternative English names in common use are also given.

BRYOPHYTA

HEPATICAE Liverworts

RADULACEAE

Radula complanata (L.) Dum.
Bowdown Reserve, 1.5m up Ash trunk near Dormouse box 27, compartment 2, 02.02.98 (MWS).

MUSCI Mosses

BARTRAMIACEAE

Bartramia pomiformis Hedw.
Pamber Forest, bank near entrance from Impstone Road, 21.03.98 (SVO'L); Oakwood Farm, Beenham, bank on E on NS track, 04.04.98 (MWS).

EQUISETOPSIDA Horsetails

EQUISETACEAE Horsetail family

Equisetum telmateia Ehrh. Great Horsetail
Large colony on retaining bank of Lake 7 on Young's Industrial Estate, Aldermaston, 10.08.98 (KHG).

PTEROPSIDA Ferns

OPHIOGLOSSACEAE Adder's-tongue family

Ophioglossum vulgatum L. Adder's-tongue
Beenham Hatch, West Field. A large number of plants in broad swathe up a shallow valley from the lower gate, 13.05.98 (MWS); Hartslock, 21.05.98 (AB).

ASPLENIACEAE Spleenwort family

Phyllitis scolopendrium (L.) Newman
Hart's-tongue
By the Emmbrook, 13.04.98 (C & RG); Warburg Reserve, 06.06.98; Crowmarsh, 11.09.98 (AB).

MAGNOLIOPSIDA Flowering Plants

RANUNCULACEAE Buttercup family

Ranunculus auricomus L. Goldilocks Buttercup
Beenham, 04.04.98 (AB); .Spencers Wood, 08.04.98; Shinfield Grange, 11.04.98; by Emmbrook, 13.04.98 (C & RG).

Aquilegia vulgaris L. Columbine
Warburg Reserve, 30.05.98 (AB).

URTICACEAE Nettle family

****Soleirolia soleirolii*** (Req.) Dandy
Mind-your-own-business
Base of walls of Wargrave church, 12.06.98 (C & RG); Recorded here in 1965 (BMN).

FAGACEAE Beech family

****Quercus cerris*** L. Turkey Oak
Warburg Reserve, 06.06.98 (AB).

CARYOPHYLLACEAE Pink family

Spergularia rubra (L.) J.S.Presl & C. Presl
Sand Spurrey
Footpath by R. Blackwater, Eversley, 14.07.98 (C & RG).

Lychnis flos-cuculi L. Ragged-Robin
Warburg Reserve, 30.05.98 (AB).

Silene dioica (L.) Clairv. Red Campion
Sulham, 28.05.98; Moatlands, 11.06.98; Basildon Park, 19.07.98 (AB).

CLUSIACEAE (HYPERICEAE)
St John's-wort family

Hypericum tetrapterum Fries
Square- stalked St John's-wort
Basildon Park, 19.07.98 (AB).

Hypericum montanum L. Pale St John's-wort
Beside Lake 7 on Young's Industrial Estate, Aldermaston, 27.08.98 (KHG).

MALVACEAE Mallow family

Malva moschata L. Musk mallow
Good colonies on S verges of the Pangbourne-Theale roundabout, 01.06.98 (KHG); Basildon Park 19.07.98; Warren Bank Reserve, 29.08.98 (AB).

VIOLACEAE Violet family

Viola tricolor L. Wild Pansy, Heartsease
Dunsden, 19.05.98 (AB).

BRASSICACEAE (CRUCIFEREAE)
Cabbage family

Barbarea vulgaris R. Br. Winter-cress
Dunsden, 3.05.98; Moor Copse Reserve, 14.05.98 (AB).

Rorippa sylvestris (L.) Besser
Creeping Yellow-cress
Sulham, 12.08.98 (AB).

Rorippa amphibia (L.) Besser
Great Yellow-cress
Moatlands, 11.06.98 (AB).

Cardamine amara L. Large Bitter-cress
Plants with both white and pink flowers beside River Pang at Moor Copse Reserve, 03.05.98 (KHG).

Cardamine hirsuta L. Hairy Bitter-cress
Beenham, 04.04.98; Barkham, 15.07.98 (AB).

Cochlearia danica L. Danish Scurvygrass
Abundant along Longwater Road, Eversley, 08.05.98 (C & RG).

****Lepidium draba*** L. Hoary Cress
St Michaels Churchyard, 02.06.98; Moatlands, 11.06.98 (AB).

PRIMULACEAE Primrose family

Lysimachia vulgaris L. Yellow Loosestrife
Basildon Park, 19,07.98 (AB).

CRASSULACEAE Stonecrop family

****Sedum rupestre*** L. Reflexed Stonecrop
Junction of Ford Lane with main road, Bramshill, 29.05.98 (C & RG).

SAXIFRAGACEAE Saxifrage family

****Tellima grandiflora***
(Pursh) Douglas ex Lindley Fringe-cups
Coles Lane, Bramshill, 29.05.98 (C & RG).

ROSACEAE Rose family

Agrimonia procera Wallr. Fragrant Agrimony
Bomb Dump Reserve by northern pair of huts, 13.08.98 (MWS).

Aphanes arvensis L. Parsley-piert
Beenham, 04.04.98 (AB).

Rosa tomentosa Smith Harsh Downy-rose
Ashridge Wood, W border of S arm of main block, 20.06.98 (MWS).

FABACEAE (LEGUMINOSAE) Pea family

Anthyllis vulneraria L. Kidney Vetch
Churn, 05.08.98 (AB).

Ornithopus perpusillus L. Bird's-foot
Wildmoor Reserve, near entrance off Rackstraw Lane (A3095), 16.07.98 (MWS).

Hippocrepis comosa L. Horseshoe Vetch
Warburg Reserve, 30.05.98 (AB).

Vicia parviflora Cav. Slender Tare
Sulham, 12.08.98 (AB).

****Melilotus albus*** Medicus White Melilot
Near Decoy Heath Reserve car park, 01.08.98 (KHG).

Trifolium arvense L. Hare's-foot Clover
Wildmoor Reserve. on road verge just outside the reserve, 19.07.98 (MWS).

Genista anglica L. Petty Whin
Sulham, 12.08.98 (AB).

Ulex minor Roth Dwarf Gorse
Bomb Dump Reserve, by southern pair of huts, 13.08.98 (MWS).

LYTHRACEAE Purple-loosestrife family

Lythrum salicaria L. Purple-loosestrife
Crowmarsh, 16.09.98 (AB).

VISCACEAE Mistletoe family

Viscum album L. Mistletoe
RAF College, Bracknell, 24.03 98; Winkfield 24.03.98 (C & RG).

EUPHORBIACEAE Spurge family

Euphorbia lathyris L. Caper Spurge
Colony of c. 20 plants on waste ground on edge of A417 by track leading to Aston Upthorpe Downs, 03.05.98 (KHG); Warburg Reserve, 06.06.98 (AB).

Euphorbia exigua L. Dwarf Spurge
Sulham, 12.08.98 (AB).

RHAMNACEAE Buckthorn family

Rhamnus cathartica L. Buckthorn
Ashridge Wood, W border of S arm of main block, 20.06.98 (MWS); Churn 05.08.98; Crowmarsh 10.09.98 (AB).

GERANIACEAE Crane's-bill family

Erodium cicutarium (L.) L'Hér.
Common Stork's-bill
Shinfield Grange, 11.04.98 (C & RG); Moatlands, 11.06.98 (AB).

APIACEAE (UMBELLIFERAE) Carrot family

Berula erecta (Hudson) Cov.
Lesser Water-parsnip
Moor CopseReserve, 03.05.98 (AB).

Aethusa cynapium L. Fool's Parsley
Churn, 05.08.98 (AB).

Apium nodiflorum (L.) Lagasca
Fool's Water-cress
Barkham, 15.07.98; Sulham, 12.08.98; Moatlands, 11.06.98 (AB).

Pastinaca sativa L. Wild Parsnip
Dominant over an area of c. 2 hectares in Hundred Acre Piece, Mortimer West End 25.07.98. A large colony at E end of Decoy Heath Reserve, some specimens to 1.8m, partly on ground covered by ****Fallopia japonica***, Japanese Knotweed, cut down in August 1997, 01.08.98 (KHG).

SOLANACEAE Nightshade family

Atropa belladonna L. Deadly Nightshade
Warburg Reserve, 30.05.98; The Holies, 18.06.98 (AB).

BORAGINACEAE Borage family

Lithospermum officinale L.
Common Gromwell
Warburg Reserve, 30.05.98 (AB).

****Symphytum orientale*** L. White Comfrey
By Culpepper Mill public house, Lower Earley, 14.04.98; Cutbush Lane, 20.05.98 (C & RG).

****Pentaglottis sempervirens***
(L.) Tausch ex L. Bailey Green Alkanet
Three large colonies by roadside SW of Butt Inn, Aldermaston, 15.05.98; colonies on roadside verges of A329 and A417, N of Streatley, 16.05.98 (KHG).

Cynoglossum germanicum Jacq.
Green Hound's-tongue
Warburg Reserve, 04.06.98 (AB).

LAMIACEAE (LABIATAE)
Dead-nettle family

Lamium amplexicaule L. Henbit Dead-nettle
Sulham, 12.08.98 (AB).

Nepeta cataria L. Cat-mint
Crowmarsh, 11.09.98 (AB).

****Melissa officinalis*** L. Balm
Moor Copse Reserve, 03.05.98 (AB).

Mentha suaveolens Ehrh. Round-leaved Mint
Four plants on waste ground on edge of A417 by track leading to Aston Upthorpe Downs, 05.09.98 (KHG).

SCROPHULARIACEAE Figwort family

Scrophularia auriculata L. Water Figwort
Moatlands, 11.06.98; Crowmarsh, 16.09.98 (AB).

Kickxia elatine (L.) Dumort.
Sharp-leaved Fluellen
Sulham, 12.08.98 (AB).

Kickxia spuria (L.) Dumort.
Round-leaved Fluellen
Sulham, 12.8.98 (AB).

Veronica beccabunga L. Brooklime
Moatlands, 11.06.98 (AB).

CAPRIFOLIACEAE Honeysuckle family

Viburnum opulus L. Guelder-rose
Warren Bank Reserve, 29.08.98 (AB).

ADOXACEAE Moschatel family

Adoxa moschatellina L. Moschatel
Carter's Hill, 09.04.98 (C & RG).

VALERIANACEAE Valerian family

Valeriana dioica L. Marsh Valerian
Pond by Eversley cricket ground, 14.07.98 (C & RG).

DIPSACACEAE Teasel family

Scabiosa columbaria L. Small Scabious
Warren Bank Reserve, 29.08.98 (AB).

ASTERACEAE (COMPOSITAE) Daisy family

Carduus tenuiflorus Curtis Slender Thistle
Moatlands, 11.06.98 (AB).

Cirsium eriophorum (L.) Scop. Woolly Thistle
Moatlands, 11.06.98 (AB).

Serratula tinctoria L. Saw-wort
Churn, 05.08.98 (AB).

Mycelis muralis (L.) Dumort. Wall Lettuce
Swallowfield churchyard, 30.09.98 (C & RG).

****Pilosella aurantiaca***
(L.) F.W. Schultz & Sch. Bip Fox-and-cubs
Barkham, 15.07.98 (AB).

Pulicaria dysenterica (L.) Bernh.
Common Fleabane
Crowmarsh, 16.09.98 (AB).

Erigeron acer L. Blue Fleabane
Bramshill Plantation, 21.08.98 (C & RG).

Bidens tripartita L. Trifid Bur-marigold
Sulham, 12.08.98 (AB).

JUNCACEAE Rush family

Luzula campestris (L.) DC.
Field Wood-rush, Good Friday Grass
Beenham, 04.04.98 (AB).

CYPERACEAE Sedge family

Eriophorum angustifolium Honckeny
Common Cottongrass
California Country Park, 18.07.98 (C & RG).

Carex vesicaria L. Bladder-sedge
Bournefield Farm, The Dip, just N of fence in pond, 25.05.98 (MWS).

Carex strigosa Hudson
Thin-spiked Wood-sedge
Moor Copse Reserve, Hogmoor Copse, path NS through Comp. 5B,14.05.98; Bowdown Reserve, near bottom of valley F, 22.06.98; Baynes Reserve, Comp 13, 24.06.98 (MWS).

POACEAE (GRAMINEAE) Grass family

Melica uniflora Retz. Wood Melick
Beenham, 04.04.98 (AB).

SPARGANIACEAE Bur-reed family

Sparganium erectum L. Branched Bur-reed
Sulham, 12.08.98 (AB).

TYPHACEAE Bulrush family

Typha angustifolia L. Lesser Bulrush
Holly Wood, ornamental pond, 15.02.98 (MWS).

LILIACEAE Lily family

Convallaria majalis L. Lily-of-the-valley
Warren Wood, Finchamptead, 04.04.98 (C & RG).

Ruscus aculeatus L. Butcher's-broom
The Holt, Carter's Hill, 09.04.98 (C & RG); Sulham 12.08.98 (AB). First reported from Sulham in the Society's records in1954. It has been recorded there several times since. An accurate record of position and spread would be interesting (BMN).

ORCHIDACEAE Orchid family

Orchis mascula (L.) L. Early-purple Orchid
Farley Hill, 07.04.98 (C & RG); Moor Copse 14.05.98 (AB). In 1984 a great increase in numbers was reported at Moor Copse Reserve after coppicing.

Orchis morio L. Green-winged Orchid
Beenham Hatch, East field, NE quadrant. A nice colony of about 30 plants, 13.05.98 (MWS).

Ophrys apifera Hudson Bee Orchid
At least 40 specimens in small area to W of pond at E end of Decoy Heath Reserve. Some specimens to 0.3m. 29.06.98 (KHG); Basildon Park, 19.07.98 (AB).

CONTRIBUTORS

Thanks are due to the following contributors :

Alan Brickstock (AB), Colin & Renée Grayer (C & RG), Kenneth Grinstead (KHG), Sean O'Leary (SVO'L) and Malcolm Storey (MWS).

REFERENCES

Smith, A.J.E. — The Liverworts of Britain and Ireland, 1990 Cambridge University Press

Smith, A.J.E. — The Moss Flora of Britain and Ireland, 1978 Cambridge University Press

Kent, D.H. — List of Vascular Plants of the British Isles, 1992 Botanical Society of the British Isles, London.

Stace, Clive A. — New Flora of the British Isles, 1991 Cambridge University Press

Dony, J.G., Jury, S.L. & Perring, FH — English Names of Wild Flowers, 2nd. edition, 1986 Botanical Society of the British Isles, London

THE RECORDER'S REPORT FOR FUNGI 1998

Alan Brickstock

On the whole, this was a disappointing foraying year, numbers of species on all but one of our forays being low. Many of the species recorded for the year were found in very small numbers, and only after diligent searching. September was very dry and mild, and early forays were particularly poor.

The one really good foray of the season was at Harpsden on October 3rd. The usual specialities of this site all duly obliged. *Amanita phalloides* were there in large numbers, not only in their usual place, but widely scattered through the woodland on the afternoon foray. Some huge specimens of *Geastrum triplex*, *G. sessile* and the beautiful *Tricholoma (Calocybe) ionides* were all present, as ever, on the roadside verge at the bottom of the hill. We also found *Melanophyllum echinatum, (M. haematospermum), Inocybe griseolilacina, I. hirtella, I. pyriodora,* smelling of pears, the uncommon *Collybia succinea* (identified by Richard Fortey) and some large *Cortinarius*, possibly *elegans*. 124 species were found on this occasion, very nearly double the number on any of our other forays (counting morning and afternoon forays as different when in different areas).

There were two new records for Prospect Park, a cluster of *Pholiota aurivella* growing about eight feet up in one of the old pollarded Willows round the pond, and half a dozen specimens of the uncommon Morel, *Mitrophora semilibera*, growing under a large Ash tree in the Orchard.

The foray at Clayfield Copse / Blackhouse Wood was made more enjoyable by the numerous items of wood carving around these woods, with marvellous animals, insects, etc. portrayed. These in themselves provide an excellent natural history walk. The outstanding find here was the beautiful apricot-coloured *Rhodotus palmatus*. This species was also found at Maiden Erlegh, on an old Elm log. There was also a very good *Fistulina hepatica* (Beefsteak fungus) growing in a large hollow oak at this latter site.

We had an excellent half day at Boze Down vineyard on October 21st. After wine tasting during lunch, Sandra Conn took us on a tour of their grasslands. This was outstanding for the number of *Hygrocybe* specimens, including the species *coccinea, strangulata, intermedia, pratensis, psittacina, conica* and *nivea*. There were also some old specimens of the very uncommon *Amanita echinocephala*. Many thanks to Sandra for a most enjoyable afternoon.

A large ring of *Hydnum rufescens* was an outstanding find at Holly Wood, Bucklebury on November 15th. A sample of these taken for tea were quite delicious! Also found here was the yellow, blackening *Hygrocybe conica* var. *chlorides*.

The foray at Ufton Nervet on November 21st. was notable for the great numbers of *Cortinarius semisanguineus, Hygrophorus hypothejus* and *Mycena cinerella*, as well as a few specimens of the beautiful greenish coloured *Panellus serotinus*.

Despite the lack in quantity and in counts on individual forays, the total number of species was, surprisingly, not bad at 375 - with no doubt quite a few more when late records are all in.

Forays of the Reading Fungus Group are all identified by (RFG). However, numerous people have identified specimens on these forays, especially Paul Cook and John Wheeley. Malcolm Storey has also supplied numerous species lists. Without them the number of identified species would have been much lower!

My thanks to all those who have helped in finding and identifying species.

GILL FUNGI

Agaricus bitorquis (Quél.)Sacc.
Howberry Park, Crowmarsh Gifford, 8.10.98 (GC)

Agaricus bresadolianus Bohus
Highdown Wood, 6.10.98 (GC)

Agaricus placomyces Peck
Prospect Park, 23.9.98 (AB); Sulham, 4.11.98 (RFG)
Numerous very large specimens at both sites. This species has the same yellow-staining and produces the same allergy symptoms as the 'Yellow Stainer', ***Agaricus xanthoderma***.

Amanita echinocephala (Vitt.)Quél.
Bozedown Vineyard, 21.10.98 (RFG)
A very uncommon species, but apparently occurs annually here.

Calocybe ionides (Bull.)Donk.
(***Tricholoma ionides***)
Harpsden, 3.10.98 (RFG)

Clitocybe phyllophila (Fr.)Quél.
Pamber Forest,11.10.98 (RFG)

Collybia luteifolia Gill.
Chawridge, 2.5.98 (MWS)

Collybia succinea (Fr.)Quél.
Harpsden, 3.10.98 (RF)
A rare species, identified by Richard Fortey.

Cortinarius alboviolaceus (Pers.:Fr.)Fr.
Harpsden, 3.10.98 (RFG)
A number of large, handsome specimens on a roadside edge.

Cortinarius paleaceus (Weinm.)Fr.
Ufton Nervet, 21.11.98 (RFG)
Smells strongly of Pelargonium.

Cortinarius pholideus (Fr.:Fr.)Fr.
Five Oaken, 30.10.98 (RFG)

Cortinarius puniceus Orton
Holly Wood, 15.11.98 (RFG)
A small blood-red species.

Cortinarius semisanguineus (Fr.)Gill.
Ufton Nervet, 21.11.98 (RFG)
Occured here in extraordinary numbers.

Entoloma incanum (Fr.)Hesler.
(***Leptonia incana***)
Bozedown Vineyard, 21.10.98 (RFG)

Entoloma hirtipes (Schumm.:Fr.)Moser
Bozedown Vineyard, 21.10.98 (RFG);
Sulham, 4.11.98(RFG)

Gymnopilus hybridus (Fr.:Fr.)Sing.
Ufton Nervet, 21.11.98 (RFG)

Hygrocybe conica var. ***chloroides***
(Malençon)Bon
Holly Wood, 15.11.98 (RFG)
A yellow form of the red, blackening type.

Hygrocybe intermedia (Pass.)Fay.
Bozedown Vineyard, 21.10.98 (RFG)

Hygrocybe psittacina (Sch.:Fr.)Kummer
Sulham, 4.11.98 (RFG)
'Parrot fungus', so called from its colouration.
Numerous specimens in a grassy glade.
Not found here before

Inocybe asterospora Quél.
Harpsden, 3.10.98 (RFG)

Inocybe hirtella Bres.
Harpsden, 3.10.98 (RFG)

Inocybe longicystis Atk.
Ufton Nervet, 9.8.98 (RFG)

Lepiota aspera (Pers. in Hofm.:Fr.)Quel.
Harpsden, 3.10.98 (RFG)

Marasmius torquescens Quél.
Harpsden, 12.9.98 (NL)

Melanoleuca polioleuca (Fr.)Kühn.& Maire
Harpsden, 3.10.98 (RFG)

Melanophyllum haematospermum
(Bull:Fr.)Kreisel
=***Melanophyllum echinatum*** (Roth:Fr.)Sing.
Harpsden, 3.10.98 (RFG)

Mycena stylobates (Pers:Fr.)Kummer
Pamber Forest, 11.10.98 (RFG)

Pholiota aurivella (Batsch.:Fr.)Kummer
Prospect Park, 25.11.98 (AB)
Growing about eight feet up in a pollarded Willow round the pond. A new record for the Park.

Pluteus.chrysophaeus (Schff.:Fr.)Quél.
Harpsden, 12.9.98 (NL)

Pluteus boudieri Orton
Harpsden, 12.9.98 (NL)

Pluteus phlebophorus (Ditm.)Kummer
Harpsden, 12.9.98 (NL)

Rhodotus palmatus (Bul.:Fr.)Maire
Clayfield Copse, 7.10.98 (RFG); Maiden Erlegh, 18.10.98 (RFG). Becoming rare once more, now that the host dead elms are disappearing.

Simocybe centunculus (Fr.:Fr.)Watling
Bozedown Vineyard, 21.10.98 (RFG)

BOLETI

Xerocomus spadiceus (Fr.)Quél.
Ufton Nervet, 21.11.98 (RFG)

APHYLLOPHORALES

Ceriporia viridans (Berk.&Br.)Donk
Harpsden, 12.9.98 (NL)

Clavariadelphus fistulosus var. ***contorta*** Corner
Emmer Green, 2.11.98 (PS)
A stunted and distorted subspecies, quite unlike the type, growing on Hazel.

Coniophora olivacea (Fr.)Karst.
Ufton Nervet, 21.11.98 (RFG)

Fistulina hepatica Schaeff.:Fr.
Maiden Erlegh, 18.10.98 (AB)
A large specimen which appears every year inside a hollow Oak tree.

Ganoderma lucidum (Curt:Fr.)Karsten
Padworth Common, 30.10.98 (RFG)

Hydnum rufescens Sch.:Fr.
Holly Wood, 15.11.98 (RFG)
A large ring of this normally uncommon species.

Hypochnicium polonense (Bres.)Strid
Warburg Reserve, 18.4.98 (RFG)

Ischnoderma benzoinum (Wahl.:Fr.)Karst.
Bozedown Vineyard, 21.10.98 (RFG)

Mucronella calva (Alb. & Schwein.:Fr.)Fr.
California Country Park, 22.3.98 (RFG);
Warburg Reserve, 18.4.98 (RFG)

Resinicium bicolor (A&S:Fr.)Parm.
Warburg Reserve, 18.4.98 (RFG)

Trametes pubescens (Schumach.:Fr.)Pilát
California Country Park, 22.3.98 (RFG)

GASTEROMYCETES

Geastrum pectinatum Pers.
Whiteknights, 2.10.98 (MKL)
A very uncommon Earth-star. Ten specimens growing under a Yew tree in the Harris Garden.

Geastrum sessile (Sow.)Pouz.
Harpsden, 3.10.98 (RFG)
Always here in the same spot. A small, pale Earth-star, with no 'saucer'.

RUSTS

Taphrina betulina Rostr.
Holly Wood, 15.11.98 (RFG)
'Witches Broom' of birch

ASCOMYCETES

Calotia neglecta (Lib.)Hein
Warburg Reserve, 18.4.98 (RFG)

Cheilymenia stercorea (Pers.)Boud.
California Country Park, 22.3.98 (RFG)

Cyathicula cyathoidia (Bull.)Thuem
Warburg Reserve, 18.4.98 (RFG)

Dasyscyphus cerinus (Pers.)Fuckel
Warburg Reserve, 18.4.98 (RFG)

Dasyscyphus fuscescens var. ***fagicola*** (Phill.)Dennis
Warburg Reserve, 18.4.98 (RFG)

Eriopezia caesia (Pers.)Rehm
Warburg Reserve, 18.4.98 (RFG)

Humaria hemisphaerica (Wigg.:Fr.)Fuckel
Harpsden, 12.9.98 (NL)

Hyaloscypha stevensonii (Ber. & Br.)Nannf.
Warburg Reserve, 18.4.98 (RFG)

Lachnellula occidentalis (Hahn&Ayers)Dharne
Warburg Reserve, 18.4.98 (RFG)

Mitrophora semilibera (DC:Fr.)Leveille
Prospect Park, 13.4.98 (AB)
Six specimens growing under a large Ash tree, in the Orchard. A new record for the Park.

Morchella conica Pers.
Dunstan Park, 25.4.98 (MWS)

Otidea onotica (Pers.)Fuckel
Pamber Forest, 11.10.98 (RFG)
'Hare's Ear'. A large and very handsome specimen.

Paxina acetabulum (L.:St. Amans)Kuntze
Bomb Dump Car Park, 2.5.98 (MWS)

Peziza micropus Pers.
Harpsden, 12.9.98 (NL)

MYXOMYCETES

Brefeldia maxima
Harpsden, 12.9.98 (NL)

CONTRIBUTORS

Alan Brickstock (AB), Paul Cook (PC), Gordon Crutchfield (GC), Richard Fortey (RF), Reading Fungus Group (RFG), Michael Keith-Lucas (MKL), Nick Legon (NL), Peter Silver (PS), Malcolm Storey (MWS), John Wheeley (JW)

THE RECORDER'S REPORT FOR ENTOMOLOGY 1998

David G. Notton

Curator of Natural History, Reading Museum Service

The order and nomenclature used is that given in the standard checklists of Kloet and Hincks (1964 -1978) supplemented by Bradley and Fletcher (1979). Records presented are selected and edited for brevity: full details of all records and some voucher specimens are available for examination on application to the Recorder at the address above. Future recorders are encouraged to retain vouchers for critical species.

ODONATA

Platycnemis pennipes (Pallas)
White-legged Damsel
Cholsey Marsh Reserve, 9.7.98 (MWS); Fobney Meadow, 26.7.98 (DGN).

Calopteryx splendens (Harris) Banded Damsel
R. Kennet near Tyle Mill Lock, 5.8.98 (KHG).

ORTHOPTERA

Omocestus rufipes (Zetterstedt)
Woodland Grasshopper
Bowdown Reserve, 13.8.98, voucher retained (MWS).

DICTYOPTERA

Ectobius lapponicus (L.) Dusky Cockroach
Bowdown Reserve, 3.7.98; Wildmoor Reserve, 16.7.98, voucher retained (MWS).

LEPIDOPTERA

Nemophora metallica (Poda)
Hartslock Reserve, 30.7.98 (CMR).

Sitochroa palealis (Denis & Schiffermüller)
Hundred Acre Piece, Burghfield, 25.7.98, a very fresh specimen flushed from grass; Greenham Common, 15.8.98 (BRB). Upper Bucklebury, 29.7.98 (MWS).

Mecyna flavalis flaviculalis Caradja
Hartslock Reserve, many during 4-29.7.98 (CMR).

Apatura iris (L.) Purple Emperor
Pamber Forest, 17.7.98, a male settled on a gravel patch along Straight Ride; near Bowmonts Bridge, 6.8.98, a male high around oaks (BRB).

Ochropacha duplaris (L.) Common Lutestring
Hartslock Reserve, 10.7.98. First Reserve record (CMR).

Idaea muricata (Hufnagel) Purple-bordered Gold
Wildmoor Reserve, 19.7.98, voucher retained (MWS). Not seen in Watsonian Berkshire since 1951 (BRB).

Catarhoe cuculata (Hufnagel) Royal Mantle
Hartslock Reserve, 4 & 24.7.98 (CMR).

Eulithis prunata (L.) The Phoenix
Emmer Green, 3.7.98 (JHFN); Hartslock Reserve, 15.7.98 (CMR).

Rheumaptera cervinalis (Scopoli) Scarce Tissue
Emmer Green, 29.3.98 (JHFN).

Perizoma bifaciata (Haworth) Barred Rivulet
Hartslock Reserve, 15.7.98 (CMR).

Pseudopanthera macularia (L.) Speckled Yellow
Decoy Heath Reserve, 15.5.98 (KHG).

Angerona prunaria (L.) The Orange Moth
Pamber Forest, 16.6.98, a female flying in bright sunshine at the end of Impstone Road (BRB).

Aspitates ochrearia (Rossi) Yellow Belle
Greenham Common, 15.8.98, several specimens flushed from grass. An unusual record as the species is predominantly coastal (BRB).

Agrotis trux lunigera Stephens Crescent Dart
Emmer Green, 7.7.97, at light (JHFN/DGN). Recent inland occurrences of this previously coastal moth are summarised by Notton & Honey (1998).

Lithophane ornitopus lactipennis (Dadd)
Grey Shoulder-knot
Emmer Green, 17.10.98 (JHFN).

Parascotia fuliginaria (L.) Waved Black
Heath Lake, Bracknell, 31.5.98 larvae feeding on fungus below log (KHG).

COLEOPTERA

Graptodytes pictus (F.) A water beetle
Otmoor, 2.10.97, waterfilled ditch, farmland (TDH). No previous local record (HHC).

Agabus melanocornis Zimmermann
A water beetle
Nettlebed Common, 7.9.97 (TDH). No previous record (HHC).

Ptinella errabunda Johnson A ptiliid beetle
Warren Heath, coll. 20.4.96, em. 10.3.97, reared from birch log (TDH). No previous record (HHC).

Acrotrichis cognata (Matthews) A ptiliid beetle
Leighton Park, 27.3.97, compost heap (TDH). No previous record (HHC).

Acrotrichis intermedia (Gillmeister) A ptiliid beetle
Wokefield Common, 16.4.97, *Sphagnum* moss (TDH). No previous record (HHC).

Proteinus atomarius Erichson A rove beetle
Wokefield Common, 27.9.97, in *Boletus* sp. fruit body (TDH). No previous record (HHC).

Stenus ochropus Kiesenwetter A rove beetle
Hartslock Reserve, 22.4.97, rabbit burrow, chalk grassland (TDH). No previous record (HHC).

Staphylinus fortunatarum (Wollaston)
A rove beetle
Hitchcopse Pit, 2.4.97, disused sand pit (TDH).
No previous record (HHC).

Heterothops praevius Erichson A rove beetle
Near Westridge Green, 3.5.97, in hay (TDH). No previous record (HHC).

Schistoglossa gemina (Erichson) A rove beetle
Near Shinfield Grange, 25.3.97, *Juncus* sp. tussock (TDH). No previous local record (HHC).

Pycnota paradoxa (Mulsant & Rey) A rove beetle
Hartslock Reserve. 20.4.97, rabbit burrow, chalk grassland (TDH). No previous record (HHC).

Dadobia immersa (Erichson) A rove beetle
Wokefield Common, 13.5.97, under bark (TDH). No previous record (HHC).

Atheta debilis (Erichson) A rove beetle
Shinfield Grange, 4.4.97, *Juncus* sp. tussock (TDH).
No previous record (HHC).

A. cauta (Erichson) A rove beetle
Near Carter's Hill Farm, 11.1.97, manure heap (TDH). No previous record (HHC).

Crataraea suturalis (Mannerheim) A rove beetle
Near Heckfield Heath, 12.4.97, mouldy hay bales (TDH). No previous record (HHC).

Lucanus cervus (L.) Stag Beetle
Northcourt Ave, 3.6.97, flying at 20:00 hrs (TDH); Gurney Drive area, Caversham, 20-26.7.1998, both sexes (AVM). Britain's largest insect, this species received legal protection under the Wildlife and Countryside act in 1998. It is threatened by the destruction of its breeding sites in dead wood and was the subject of a local survey by Reading Borough Council's Environment Centre (DGN).

Aphodius zenkeri Germar A dung beetle
Nettlebed Common, 11.9.97, in flight (TDH).
No previous record (HHC).

Amphimallon solstitialis (L.) Summer Chafer
Reading area, 6-7.98, many records including some reportedly entering houses down chimneys; this species naturally swarms at treetops and other tall objects such as houses and can fall down chimneys (DGN).

Calyptomerus dubius (Marsham) A clambid beetle
Near Heckfield Heath, 12.4.97, mouldy hay bales (TDH). No previous record (HHC).

Cyphon padi L. A scirtid beetle
Cothill Fen, 2.4.97, reed litter (TDH). No previous record (HHC).

Brachypterolus vestitus (Kiesenwetter)
A nitidulid beetle
Northcourt Ave, 5.6.97, on garden ***Antirrhinum*** (TDH). No previous record (HHC).

Atomaria fimetarii F. A cryptophagid beetle
Near Bramshill Park, 20.9.97, base of ***Coprinus comatus*** fruit body (TDH). No previous record (HHC).

Corylophus cassidoides (Marsham)
A corylophid beetle
Near Appleton Lower Common, 10.4.97, ***Glyceria maxima*** litter (TDH). No previous record (HHC).

Abdera flexuosa (Paykull) A melandryid beetle
Wokefield Common, 13.5.97, decaying ***Inonotus radiatus*** fruit body on ***Alnus glutinosa*** (TDH).
No previous record (HHC).

Anaspis regimbarti Schilsky A scraptiid beetle
Pamber Forest, 4.6.97, beaten from ***Ilex aquifolium*** flowers (TDH). No previous record (HHC).

Mordella pseudopumila Ermisch
A mordellid beetle
Near Potters Farm. Near Ewelme, 10.6.97, ***Heracleum spondylium*** umbels (TDH).
No previous record (HHC).

Mordellistena variegata (F.) A mordellid beetle
Leighton Park, 5.7.97, ***Heracleum spondylium*** umbels (TDH). No previous record (HHC).

Agapanthia villosoviridescens (Degeer)
A long-horn beetle
Nettlebed Common, 21.6.98; Bowdown Reserve, 3.7.98 (MWS); Cholsey Marsh Reserve. 6.8.98 (MCH).

Timarcha tenebricosa (F.) Bloody-nosed Beetle
Warren Bank Reserve, 29.8.98, mating pair (KHG).

Mantura matthewsi (Curtis) A leaf beetle
Hartslock Reserve, 23.6.97, swept, chalk grassland (TDH). No previous record (HHC).

Otiorhynchus crataegi Germar A weevil
Earley, 19.9.97-12.11.97, numerous, at light (TDH). No previous record (HHC).

HYMENOPTERA

Buathra laborator (Thunberg) An ichneumon wasp
Emmer Green, several specimens reared 1997-98 from cocoons of ***Cuculia verbasci*** dug from under ***Verbascum nigrum*** (DGN).

Neorhacodes enslini (Ruschka)
An ichneumon wasp
Emmer Green (DGN). Berkshire records are summarised by Notton & Shaw (1998).

Hedychrum niemelai Linsenmaier A cuckoo wasp
Wildmoor Reserve, 19.7.98, voucher retained (MWS).

Anoplius nigerrimus (Scopoli) A spider wasp
Kingwood Common, 21.6.98, voucher retained (MWS).

Arachnospila minutula (Dahlbom) A spider wasp
Bomb Dump Reserve, 17.8.98, voucher retained (MWS).

Ancistrocerus trifasciatus (Müller) A mason wasp
Cholsey Marsh Reserve, 9.7.98, voucher retained (MWS).

Vespa crabro L. Hornet
Peppard Common, 20.10.98, male (DN via Mr Ron F. Crocker).

Dolichovespula media (Retzius) Median Wasp
Clayfield Copse Reserve, 14.7.1993 & 25.9.1994 (DGN).

D. saxonica (F.) Saxon Wasp
Clayfield Copse Reserve, 1 & 2.8.1997 (DGN).

Philanthus triangulum (F.) Bee Wolf
Wildmoor Reserve, 19.7.98, voucher retained (MWS). Southcote Triangle, 26.7.98 (DGN). Currently expanding its range and only recently recorded in Berkshire (Notton, in press).

Panurgus calcaratus (Scopoli) A bee
Wildmoor Reserve, 19.7.98, voucher retained (MWS).

DIPTERA

Oxycera nigricornis Olivier A soldier fly
Cholsey Marsh Reserve, 9.7.98, voucher retained; Moor Copse, 13.7.98, voucher retained (MWS). Notable (HHC).

Thereva plebeia (L.) A stilletto fly
Moor Copse Reserve, 13.7.98, voucher retained (MWS).

Volucella inanis (L.) A hover-fly
Emmer Green, 15.7.89; Clayfield Copse Reserve, 14.7.93, frequent at this site (DGN); Moor Copse, 27.7.98 (MWS). Notable (HHC).

Acanthiophilus helianthi (Rossi) A greater fruit fly
Bray Pit Reserve, 27.6.98, voucher retained (MWS). Rare (HHC).

Meliera crassipennis (F.) A picture-winged fly
Cholsey Marsh Reserve, 9.7.98, swept off ***Glyceria maxima*** at river edge, voucher retained (MWS).

Coremacera marginata (F.) A marsh fly
Moor Copse Reserve, 27.7.98 (MWS).

CONTRIBUTORS:

Thanks are due to Brian Baker for selecting the Lepidoptera records, to Hugh Carter for comparing lists of submitted Diptera and Coleoptera against the Museum database and to the following members for their submissions:

Brian Baker (BRB), Peter Brough (PRB), Hugh Carter (HHC), Kenneth Grinstead (KHG), Thomas Harrison (TDH), Martin Harvey (MCH), Vivienne Murphy (AVM), John Notton (JHFN), Christopher Raper (CMR), Malcolm Storey (MWS).

REFERENCES:

Notton, D.G. & Honey, M.R. 1998. Some Inland records of Agrotis trux lunigera. *Entomologist's Record* 110: 175.

Notton, D.G. & Shaw, M. R. 1998. Review of the Palaearctic Neorhacodinae (Hymenoptera, Ichneumonidae) with *Eremura* Kasparyan, 1995 new to the West Palaearctic. *Bulletin of the Natural History Museum, Entomology Series* 67(2): 209-218.

Notton, D.G. In press (accepted 1998). Bee wolf reaches Reading. *Reading and District Beekeepers Association Newsletter.*

Notton, D.G. in press (accepted 1998). Bee wolf invades Britain. *Bee Farmer's Association Bulletin.*

THE RECORDER'S REPORT FOR INVERTEBRATES OTHER THAN INSECTS 1998

Hugh H. Carter

ARACHNIDA

Salticus scenicus (Clerck)
Juveniles from 2mm to 7mm in length in garden of 10 Northbrook Road, Caversham Park, 13.2.98

Nuctinea umbratica (Clerck)
One on garden fence at Pond Cottage, Binfield Heath, 20.3.93 and one at Littlestead Close, Caversham Park, 7.8.96 (HHC)

THE RECORDER'S REPORT FOR VERTEBRATES 1998

Hugh H. Carter

FISH

Cyprinus carpio (Linnaeus) Carp
One caught at Ben Drake's Lake, Newbury (reported 1.2.98) (RC).

Leuciscus cephalus (Linnaeus) Chub
None at Central Library this year. Road works have interfered with the Holy Brook, with water levels down to a centimetre or two at times.

Tinca tinca (Linnaeus) Tench
Five caught in Padworth Canal (reported 1.2.98) (RC).
Three caught at East Towney (reported 1.2.98) (RC).

Abramis brama (Linnnaeus) Bream
One caught in Padworth Canal (reported 1.2.98) (RC); one caught by angler in Dreadnought Reach, Reading, 17.6.98.

Rutilus rutilus (Linnaeus) Roach
10,000 roach 4" to 6" (10 - 15 cm) and 2,000 roach 3" to 6" (7.5 - 15 cm) released at Ufton (reported 12.2.98) (RC); several caught by anglers in Dreadnought Reach, Reading, 17.6.98.

AMPHIBIANS

Bufo bufo (Linnaeus) Toad
One dead on road at Queensway, Caversham Park, early February 1998 (MJC); one dead on road at Queensway, Caversham Park, 6.3.98 (EMC); one dead on Caversham Park Road 6.3.98; one dead in Lowfield Green, Caversham Park, 7.9.98; several singles of different ages in among potatoes, rock rose and low vegetation at Netherleigh, Pangbourne, (CF).

Total sightings about 10 (5 in 1997, about 50 in 1996).

Rana temporaria Linnaeus Frog
One dead on Milestone Way, 23.8.98.

REPTILES

Anguis fragilis Linnaeus Slow Worm
Unearthed in compost heap at Netherleigh - a family (CF).

Natrix natrix Linnaeus Grass Snake
One on gravel near the office at Caversham Court, two feet (60 cm) long, was removed to the more congenial habitat of the nearby pond, 22.9.98 (BRB).

MAMMALS

Erinaceus europaeus Linnaeus Hedgehog
One by Milestone Way, Caversham Park, 14.5.98; one dead on road, end of May 1998; one dead on Caversham Park Road, 4.7.98; one at 10 Northbrook Road, Caversham Park, 3.8.98; one dead juvenile on Sports Field, Caversham Park, 7.8.98; one in Gifford Close, Caversham Park, 10.8.98; one dead juvenile at 16 Northbrook Road, 22.8.98; one dead on road opposite Galsworthy Drive, Caversham Park, 11.12.98.

Total sightings 8 (27 in 1997, 15 in 1996, 8 in 1995).

Vulpes vulpes (Linnaeus) Fox
One observed for five minutes in open area of Warren Bank Reserve, 5.8.98 (KHG).

Total sightings 1 (10 in 1997, 1 in 1996).

Mustela erminea Linnaeus Stoat
One at Dinton Pastures, 4.4.98 (MJC).
Mustela nivalis Linnaeus Weasel
One seen carrying prey (CB).

Muntiacus reevesi Ogilby Muntjac
Slots at Binfield Heath east pond, 7.3.98; .one on railway bank just south of Reading West station, seen from train 16.4.98 (KHG); pregnant female on Balmore Park; 5.5.98 (MJC); one pursued by

dog or fox at Prospect Park, 12.6.98 (EMC); one juvenile at Joyce Grove (Sue Ryder Home), Nettlebed, 29.8.98.

Total sightings 5 (7 in 1996, 7 in 1997)

Lepus capensis Pallas Hare
One in Comp Wood, Binfield Heath, 7.3.98; three seen from road from Hampstead Norris to Aldworth (CB).

Total sightings 4 (7 in 1997, 6 in 1996)

Oryctolagus cuniculus (Linnaeus) Rabbit
15 by Kiln Road reservoir, 4.2.98, one there 7.3.98, four adults, one juvenile there, 12.12.98; three in Bird Wood, Sonning Common; two at Sonning Common sewage works, 4.2.98; 10 beside Peppard Road, 4.2.98, 30 there, 8.2.98, about 100 there, 11.4.98 (MJC), about 100 there 14.4.98, about 15 there, 30.4.98, 8 there, 2.5.98, 70 there, 5.5.98, 139 there, of which about ¾ were juveniles, 12.5.98, 155 there, 12.6.98, 174 there 26.8.98, 15 adults, 4 juveniles there, 30.11.98; one dead on New Road, Sonning, 28.6.98; five on Caversham Park Primary School playing field, 14.7.98, five there, 28.8.98, one there 14.10.98; three beside Caversham Park Road, 25.8.98 (EMC).

Total sightings 861 (324 in 1997, 193 in 1996, itself an increase on 1995). The high figure this year reflects increased observer activity in great part.

Rattus norvegicus Berkenhout Brown Rat
Three dead on Peppard Road, 26.8.98; one at the Fox inn, Cane End, 28.11.98; one dead on Kennylands Road near no. 98, Sonning Common; 30.11.98.

Sciurus carolinensis Gmelin Grey Squirrel
Two in Blackhouse Wood, 9.2.98; five juveniles at Merrimoles, Nettlebed, 26.4.98 and one there 26.9.98 (MJC and Recorder); one on Peppard Road, 11.5.98; one at Wordsworth Court, Emmer Green, 13.5.98; one in Clayfield Copse, 7.7.98; one on Caversham Park Primary School playing field, 28.8.98 and one there 28.9.98; one in Blackwater Close, Caversham Park; one in Littlestead Lane, Caversham Park, 8.11.98 and one there 20.11.98 and 21.12.98 (EMC); one in Tower Close, Emmer Green, 30.11.98; one crossing Kiln Road, Emmer Green with fruit in mouth, 8.12.98. Attacking beech this year rather than hazel, chestnuts etc. at Netherleigh (CF). Melanic individual seen by CB.

Total sightings 21(28 in 1997, 54 in 1996, 14 in 1995)

My thanks are due to the following contributors:

Brian Baker (BRB); Charles Bucke (CB); Elizabeth Carter (EMC); Mary Carter (MJC); Reading Chronical (RC); Claire Frank (CF); Kenneth Grinstead (KHG).

I am most grateful to Hugh Carter for sending this note. Editor

On the 15th.June 1998 I found a brood of Vanessid larvae at the far corner of the Caversham Park sports field. They were inhabiting a communal web on nettle, and I collected the whole assemblage which I took home to 10 Northbrook Road and installed on a clump of nettles in my garden.

The larvae had the head and first two thoracic segments black and the remainder pale.

They continued to feed within their web until the 17th, when they moved to a new leaf during the night. Next day I saw one larva being carried off by an ant, probably *Lasius niger.* On the 19th some of the larvae returned to the web, while others wandered further afield. On the 21st they reassembled on a new leaf without attempting to spin a new web. By this time most of them had moulted and were all black. By the 29th the most advanced larvae had moulted again and were now black with numerous white dots and yellow prolegs. They bore an armature of black spines 1.8 mm long, and were now clearly recognisable as the Peacock butterfly (*Inachis io*),. On this day I saw a larva of the all black (2nd?) instar being seized and carried off by a wasp, *Vespula* sp. (I have only ever taken *Vespula vulgaris* in my garden. Do wasps have a means of communicating news of available prey? The way they gather round a jam pot suggests they do.)

I did not observe any other instances of predation but in a few days the whole brood had vanished. The move to my garden had apparently disrupted their normal defensive behaviour patterns, living in the web to begin with and later feeding in serried ranks.

THE WEATHER AT READING DURING 1998

Ken Spiers

Department of Meteorology

University of Reading

This year's weather will not live in people's memory for very long. Although temperatures were above average for most of the year, for most people it did not really get hot when it mattered, the holiday season. June and the first part of July were very wet and dull and this was a trend that set in from September and remained that way through to the end of the year.

However as a result of ten of the months mean temperatures being above their long term average, this year was the sixth warmest since 1958. The night time temperatures were extremely high resulting in the lowest number of ground frosts since 1967.

The year was extremely wet and stormy, interspersed by the dry months of February, May and August, resulting in the wettest year since 1974 and the windiest since 1992. There was a side effect due to the warmer conditions and that was the lack of snowfall. The number of days with snow was the lowest since 1989 and it was also the first year since 1973 that snow was not reported as lying at the time of observation, 0900 hours.

As already mentioned, it was very dull during the first part of the summer, with only four months recording above average sunshine. As a result the amount of sunshine was over two hundred hours below last year's total, making it the dullest year since 1993.

January had a very wet and stormy start, until anticyclones began to dominate our weather by the middle of the month. Cooler, but drier weather then prevailed. During the earlier part of the month, there were some high daily temperatures, culminating with a temperature of 14.7°C on the 8th. , the highest since before 1960. All the frosts were in the latter half of the month, however this did not stop the mean temperature from being the highest since 1994. Most of the month's rain fell during the stormy period, when winds were very strong at times. The maximum wind gust for the month was 70 mph, recorded on the 4th. the highest for any January day since 1993. The amount of sunshine was about average throughout the month, with the number of sunless days the lowest for four years, this January was the sunniest since 1994.

February was very Spring-like and will be remembered for its warmth, sunshine and dryness. Anticyclones positioned over the British Isles brought warm air up from the Azores and Southern Europe. They also acted as a block, preventing weather systems from passing over the southern part of the country. Hence there was a lack of rain, with only 10% of the month's average being recorded. As the month progressed temperatures rose, with a maximum recorded on the 13th. of 16.8°C, the highest for any day in February since 1959. Overall the month was the warmest since 1990 and the fifth warmest since 1960. As would be expected there were many fine days, especially during the middle of the month. There were very few days without sun, the lowest since 1988. As a result this was the sunniest February since that year.

March weather, in the first week or so, was very unsettled. Windy at times, with gusts over 50 mph accompanied by rain, heavy at times. However high pressure to the west of the British Isles began to establish itself, bringing with it calmer, drier conditions. As a result, daily pressure readings were very high, reaching a peak on the 19th. with a reading of 1043.4 mb, the highest reading for any March day since 1990. It was warm throughout the month, with night time temperatures well above average, producing very few frosts. The mean minimum temperature for the month was the highest since 1981. Most of the month's rainfall fell during the stormy period and some at the end of the month when high

pressure collapsed and allowed weather systems to move in from the Atlantic. Although the total rainfall for the month was below average, it was still the wettest March since 1989. This was mainly due to the southern part of Britain experiencing a string of dry March months. During the latter half of the month it became very dull, with the monthly sunshine total 26% below the expected monthly average. This made it the third dullest March in the last ten days.

April was definitely a month best forgotten. Without any high pressure systems in the vicinity of the British Isles, bands of cloud and rain associated with low pressures passed over the country at regular intervals. Even the daily barometric pressure readings were low throughout the month, only reaching the average for the month on a couple of occasions. As a result the mean pressure for the month was the lowest for over forty years. Daytime and night time temperatures remained around normal throughout the month and with predominantly cloudy nights, the number of ground frosts was the lowest since 1967. However a cold spell during the middle of the month, lasting about nine days, did help to make the mean temperature for the month the lowest since 1989. During this cold spell a maximum temperature of 5.9°C was recorded on the 15th. This was the lowest daily maximum since 1989 However the main feature of the month was the rain. It rained every day of the month except the 30th. and the total of 106.8 mm was the highest for any April since 1921 and 10 mm higher than the previous record in 1983. As would be expected with such weather, there was a distinct lack of sunshine, with this April being the dullest since 1966 and the third dullest since 1956.

May was a pleasant change from the previous month's weather. Warm, dry and sunny conditions prevailed, especially during the second and third weeks when high pressures dominated. The month was pleasantly warm throughout, with night time temperatures well above normal, hence the low number of frosts. The result was that the mean monthly temperature was the highest since 1992. After April's deluge, the lack of rainfall came as a welcome relief. With the number of rainy days the lowest since 1991, the monthly total was also the lowest since 1991. The hours of bright sunshine were in abundance throughout the month, with the third week producing some long sunny days. The total number of hours of sunshine for the month was 14% above the expected average, making May the sixth sunniest in the last twenty years.

June was very wet and cloudy. Low pressure systems and bands of cloud constantly moved across the country, producing rain nearly every day. The total for the month was the highest since 1971 and the second highest since 1921. One reason for such a high total was the rainfall on the 13th., the bulk of which fell during a thunderstorm in the early evening. There had been heavy rain during the early part of the afternoon, followed by a dry period. Then around 17.00 hours, for a period of fifteen minutes, torrential rain fell at the rate of 95 mm per hour. There was local flooding for a time, as drains could not cope with the amount of rain falling. During this period, approximately a mile and a half to the south-east of the University campus, a tornado caused damage to some property. The total rainfall for this day was 42.6 mm, the thirteenth wettest day on record since 1921. Daytime temperatures were below average throughout , with the mean maximum for the month the lowest since 1991. There was a lack of sunshine, helping to make this a really miserable start to the summer. The total number of hours for the month was the fourth lowest since sunshine records were first kept in 1956.

July improved as the month proceeded. Although temperatures did not reach the expected average and sunshine was sadly lacking, at least it was dry. There was a stormy period toward the middle of the month when most of the month's rain fell. During this period it became quite windy and as a result the run of wind for the month was the highest since 1991. Daytime temperatures remained below average for most of the time, consequently the mean maximum temperature for the month was the lowest since 1988. This in turn helped produce the lowest monthly mean temperature for the month, also since 1988. Although there was sunshine nearly every day, it was low in amounts, resulting in the dullest July since 1993.

August was undoubtedly the best month of the summer and of the year. Every day, apart from two, recorded sunshine and with long sunny days being recorded during the first two weeks, it made August the fourth sunniest since 1956. It was during this period, on the 5th., which had a daily total of 13.6

hours. This was the highest amount for any day in August since 1981. Temperatures were at their highest for the year during the first half of the month, recording the highest maximum for the year so far, 29.5°C, on the 10th. However temperatures dropped during the second half of the month, resulting in the lowest mean temperature for August since 1993. The month was very dry throughout, with only 46% of the expected average being recorded. This helped to give a real holiday feel to the month for those people who took their holidays in the southern part of Britain.

September began very stormy but warm. As the month progressed temperatures began to drop. It was not until just after the middle of the month, when high pressure established itself to the north-east of the British Isles, that the weather improved. However, this short period of anticyclonic weather was not enough to prevent the month's mean pressure being the lowest since 1974. Night time temperatures remained high, due mainly to very few clear nights. Consequently there were no ground frosts recorded, the first time this has happened since 1984. The monthly mean minimum temperature was the highest since 1952 and the mean temperature the highest since 1973 as a result of the prevailing weather conditions. The month's sunshine total was only just below the monthly average. However it was very wet and windy, especially early and late in the month. The total rainfall for the month was over 50% higher than the expected average and it was also the windiest September since 1992. A very disappointing month following a fine August.

October continued the very wet conditions that had prevailed during September. Towards the end of the month there was a stormy period with wind gusts exceeding 50 mph, helping to produce the windiest October since 1968. During this period daily pressure readings dropped well below average, with the result that the mean monthly pressure was the lowest since 1990. Rainfall was the main feature though, with some very wet days culminating with a daily total of 30.5 mm on the 31st. This reading was the highest for any day in October since 1987. Also the number of wet and rain days were the highest since 1987 and 1989 respectively. The month was fairly dull, with very few very sunny days. It was no surprise that this month was the dullest October since 1991, especially with the number of sunless days the highest since 1991.

November weather conditions were a continuation from the previous months, very wet, warm and sunny at times. However there was a marked downturn in temperatures when an anticyclonic situation established itself over the northern part of the British Isles, which brought cold winds from the Continent. As with this type of change in conditions, there are extremes in temperature readings and this month was no different. The lowest minimum temperature, 4.6°C on the 17th. , was the lowest since 1993 and the highest minimum temperature, 11.0 °C on the 9th., was the highest also since 1993. The mean maximum temperature was also at its lowest value since 1993. A screen minimum of -2.0°C, recorded on the 17th. saw the first air frost of the season. It was reasonably sunny throughout with rain early and late in the month, heavy at times to make this the wettest November since 1994. A stationary high pressure, fed with cloud from periferal systems, produced anticyclonic gloom during the period from 24th. to the 27th. inclusive. This brought the total amount of sunshine for the month to below the expected average by some 9%.

December saw high pressure systems dominate our weather, only breaking down now and again to allow low pressures and fronts to cross over the country. As a result the mean monthly pressure for December was the highest since 1991. The month of December came as a brief respite from all the rain we have been experiencing over the previous three months. The total for the month was 18% below the expected monthly average. The month saw extremes in temperatures. A very cool start, with temperatures quickly rising, with the warmest period of the month between the 11th. to the 15th. inclusive. During this period, mean temperatures were double the expected values at this time of year. Overall, it was a very dull month, with the total number of hours for the month the lowest since 1969. There was a period of nine days, from the 7th. to the 19th. inclusive, with no sunshine. This was the longest period without any sunshine since February 1993 and contributed greatly to a very dull winter month.

WEATHER RECORDS 1998

UNIVERSITY OF READING (WHITEKNIGHTS)

Mean Daily Temperatures °C	Jan	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Maximum	8.6	11.2	11.8	12.0	18.9	18.8	20.2	22.3	19.7	14.4	9.4	9.5	14.7
Minimum	2.4	3.4	5.3	5.3	9.2	11.3	12.2	11.4	12.0	8.2	3.2	3.5	7.3
Mean	5.4	7.3	8.6	8.6	14.0	15.1	16.2	16.9	15.9	11.3	6.3	6.5	11.0
Range	6.2	7.8	6.5	6.7	9.7	7.5	8.0	10.9	7.7	6.2	6.2	6.0	7.5
Extreme Maximum	14.7	16.8	16.6	21.0	24.4	27.5	24.4	29.5	24.1	18.8	16.1	14.5	29.5
Date	9th.	13th.	29th.	22nd.	13th. and 15th.	20th.	20th.	10th.	1st.	21st.	8th.	14th.	10th. Aug
Extreme Minimum	- 2.5	- 3.4	- 1.0	- 0.7	1.2	5.6	8.5	6.5	6.4	0.5	- 2.0	- 2.8	- 3.4
Date	29th.	2nd.	9th. and 10th.	12th.	4th.	12th.	3rd.	27th.	13th.	18th.	17th.	21st.	2nd. Feb
Extreme Grass Minimum	- 9.1	- 10.0	- 7.9	- 5.7	- 5.0	- 0.5	2.1	- 1.0	1.7	- 5.4	- 7.1	- 8.5	- 10.0
Date	29th.	2nd.	9th.	13th.	4th.	12th.	3rd.	27th.	12th.	18th.	17th.	7th.	2nd. Feb
Days with air frost	8	5	3	2	0	0	0	0	0	0	2	7	27
Days with ground frost	19	18	10	8	4	1	0	2	0	5	21	16	104
Hours at or below 0°C	30.0	33.5	7.0	2.5	0	0	0	0	0	0	-	-	-
Sunshine Hours													
Total	55.7	107.4	79.9	100.0	217.8	139.8	152.2	246.4	132.9	88.5	61.8	21.8	1404.2
% of possible	21.2	38.0	21.7	24.1	45.3	28.2	30.7	54.8	34.9	26.6	22.8	8.8	31.2
Daily Mean	1.8	3.8	2.6	3.3	7.0	4.7	4.9	8.0	4.4	2.9	2.1	0.7	3.8

WEATHER RECORDS 1998 (cont.)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Precipitation													
Amount in mm	75.8	4.2	46.0	106.8	15.3	120.2	29.5	22.9	87.5	115.3	62.2	52.8	738.5
Rain days	13	5	13	23	6	21	11	7	17	18	15	18	167
Max. rain in one day mm	16.0	1.7	8.3	9.9	6.5	42.4	7.4	7.4	22.5	30.5	9.4	9.4	42.4
Date	1st.	6th.	2nd.	3rd.	26th.	13th.	11th.	14th.	26th.	31st.	2nd.	25th.	13th.
Mean wind speed mph	5.2	3.8	4.6	4.2	3.5	4.0	3.5	2.8	3.3	5.1	2.7	4.4	3.9
Snow or sleet days	0	0	0	4	0	0	0	0	0	0	0	1	5
Days with snow lying	0	0	0	0	0	0	0	0	0	0	0	0	0
Days with fog at 09.00 GMT	2	3	1	0	1	0	0	0	4	0	3	3	17
Days of thunder	2	0	0	4	0	1	1	0	0	0	0	0	8
Days of hail	1	0	0	3	0	0	1	0	0	0	0	0	5
Mean Pressure mb	1014.2	1025.0	1022.2	1002.6	1018.2	1013.8	1013.7	1019.4	1009.7	1012.4	1018.2	1018.9	1015.7
Highest	1036.6	1040.4	1043.4	1015.2	1029.7	1025.2	1025.7	1030.4	1034.7	1027.2	1034.8	1037.9	1043.4
Date	21st.	25th.	19th.	21st.	19th.	17th.	4th.	5th.	20th.	8th.	21st.	1st.	19th. Mar
Lowest	975.5	1013.1	996.2	983.2	1005.2	1000.2	1001.4	1004.1	994.8	999.6	989.4	999.4	975.5
Date	2nd.	28th.	4th.	4th.	26th.	10th.	12th.	21st.	30th.	17th.	2nd.	27th.	2nd. Jan

Thatcham Nature Discovery Centre

Paul Hendry

There was a building known as 'the boatshed' which had fallen into disrepair following the collapse of a business which had begun with the hiring of boats on a flooded gravel pit in Thatcham. Newbury District Council already owned the site but decided to convert from sporting to educational use at a cost of £150,000. There was initially a considerable amount of structural work to be done in 'the boatshed' for conversion to its intended use as a Nature Discovery Centre. A large display room, classroom, reception area and toilets were planned and construction began in 1994. The Centre opened in 1995 with wooden cutouts of animals and birds, models, 'interpretation boxes' and various other 'hands-on' displays. All were designed to give children an interest in natural history subjects though they could be appreciated by visitors of all ages. Over the years this work has proceeded, becoming progressively more entertaining and comprehensive. School visits take place during the summer term with a programme organised in conjunction with the RSPB, when teachers and children work in the classroom studying the impact of man on the environment.

The birds which come to the lake, both resident and migrant can be observed through binoculars which are mounted within the room housing the main display. Binocular days are arranged to give practical advice to anyone who is considering the purchase of such instruments.

As well as the building, the site includes the lake and an area of reed beds towards the River Kennet. Several aspects of nature observation, conservation and regeneration have been and continue to be practiced. Casual visitors are welcome and dog walkers use the path around the lake which is about one kilometre in length. Fishing is not allowed but to insure that the fish population does not reach levels where the oxygen content becomes too low to maintain a healthy stock, professional netting and/or electrofishing is practised. Overall there are very good relations with the general public.

Birds on the lake include ducks and geese, however there are few predators and the number of Canada geese, an introduced species, has risen to an unacceptable level. It may become necessary to cull some of these birds. Among the winter migrants there have been some unusual species. A 'tern nesting raft' supported by polystyrene floats has been placed on the lake but unfortunately tern chicks were taken by mink. At present the raft is much used by seagulls.

Various recent activities have included a display based on Grimms Fairy Tales with tree cutouts and woodland sounds, this was appreciated as much by adults as by the younger generation. Bill Oddie has opened a summer migrants weekend, a local lady has told tales of the Berkshire countryside, and trees have been 'dressed'.

There have been demonstrations by charcoal burners, seeking to revive the practice of coppicing on Bucklebury Common, and by a 'bodger', a maker of chair legs, using a traditional wood-turning lathe.

In the early days of the Centre the lake was a sterile habitat. By enclosing a small part and filling it with earth, work undertaken by a party of Gurkhas, a shallow watery area has been created. This is used by school parties for pond dipping, items being collected, placed in jam jars and then identified. It is an activity which is always popular with the participants!

The Thatcham reedbeds, covering an area of 40 hectares, are an SSSI and a site of European importance. They are managed and part owned by Newbury District Council. Over the years the reedbed ground level has risen and dried out following the cessation of commercial cutting for the purpose of thatching. To redress the balance of 60 to 70 years of neglect, water from Cold Ash is fed to the reedbeds by clearing existing ditches, digging new ones and controlling the water by sluices. Indian Balsam (*Impatiens glandulifera*), an introduced species, has spread and must be controlled to keep the ditch banks clear. Fen vegetation, such as Meadowsweet (*Filipendula ulmaria*), as well as old reed, is cut to allow the new reed to flourish. On one occasion in the past, disposal of the cut material by burning led to some embarrassment when the local Fire Brigade turned out!

It is hoped that in the future some variation in the depth of the lake can be achieved. It would be an advantage to have an area of 'mud flats', as has been done on other sites, to encourage wading birds to the shore of the lake. As time goes by there should be an increase in the number of plant species to be found in the waters which in turn will lead to a greater diversity of all species throughout the habitat.