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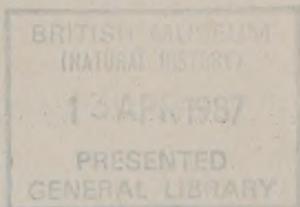


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No. 39 for the year 1986



The Journal of
The Reading and District Natural History
Society

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CONTENTS

	Page
Editorial	
Meetings and Excursions 1985-86	1
Presidential Address 1986	Dr. A. Brickstock 2
It seems like Yesterday	B.R. Baker 7
Reading Fox Watch 1986	P. Cox 17
Conifers of Victorian Reading	C. Olver 20
My First Year	B. Reed 23
Fishlock Prize	23
Honorary Recorders' Reports:	
Botany Report	B.M. Newman 24
Entomology Report	B.R. Baker 32
Fungi Report	Dr. A. Brickstock 40
Vertebrates Report	H.H. Carter 43
Weather Records	Dr. R.D. Thompson 46

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Editorial

Shirley Townend joined the Editorial Sub-committee of the Reading Naturalist in 1961. She has now resigned after so many years of loyal service. During this time she was responsible for duplicating as well as being a most valued helper in other ways. Our thanks to her and best wishes for the future. Hugh Carter has now taken over the work of duplication, for which we are most grateful.

This edition should have a complete list of members. The list is now being issued separately from the Reading Naturalist and is available only to members.

Our thanks to all the recorders and to everyone who has in any way contributed to this edition.

Meetings and Excursions

Meetings

The Annual General Meeting on October 17th 1985 was followed by the Presidential Address by Dr. Alan Brickstock on Fungi - Facts and Fantasies (attendance 47).

Other lectures during the winter were :- on October 31st - a Birdo in Queensland by Mr. Gordon Wilson (41); Noar Hill by Lady Anne Brewis (44) on November 14th; on November 28th Hedgehogs by Dr. Pat Morris (69).

In 1986 - on January 16th - A Look at Australia by Mr. Cyril Leeke (53); on January 30th Can You Farm Wildlife? by Mr. Charles Flower (50); on February 13th Plants of Patagonia & the Falklands by Prof. David Moore (52); February 27th Habitats in East Berkshire by Dr. Alan Morton (44); March 13th - Lead Poisoning in Swans by Jane Sears (39).

Two Members' Evenings were held - on December 12th 1985 (47) and March 27th 1986 (48) - both of these most ably organised by Hugh Carter.

Winter Excursions

These began as usual with two fungus forays - a half day visit to Bix Bottom on October 4th (17) and a full day spent in the morning at Sole Common (20) and the afternoon at Snelmore Common (20).

On November 19th a visit was paid to the Plant Science Laboratories at Whiteknights Park (21); a walk for general interest to Sulham/Tilehurst areas on December 7th (14): In 1986 a full day excursion to Thorney Island and Hayling Island for birds (22); to Twyford Gravel Pits also for birds on 15th February (20) and on March 15th to Dark Lane for lichens and general interest (12).

Summer Excursions

Half-day excursions were to:- Crowsley Forest on April 12th for Hairy Violet and Spring migrants (12); Padworth Gully on April 26th for general interest (26); Pincents Lane/Sulham for Early Purple Orchid on May 10th (16); Hambleton on May 24th for Spring flora (26); Benham Park for Cornflower and general interest on July 26th (21); on August 2nd to Watlington Hill for Frog Orchid and various butterflies (15); Lightwater Country Park for general interest on August 16th (15); Twyford Gravel Pits for general interest on August 30th (19); and Christmas Common on September 13th for Autumn Gentian and Chiltern Gentian (8).

Evening Excursions were to:- Burghfield Gravel Pits on May 7th for birds especially Nightingale; to Whiteknights Park for trees in full leaf as a follow-up to the November visit; Englefield Park on June 4th (9) for bats and other mammals; Knowl Hill on June 11th (18) for general interest; Thatcham Canalside for general interest on August 6th (13); a walk around Reading for trees on August 27th (16);

Full day excursions were to:- Seven Barrows and Downs for chalk flora and butterflies on June 7th (25); Thursley Common and Stopham Bridge on June 15th (15) for dragonflies and the Coach Excursion on July 12th was to Charterhouse Outdoor Centre, Somerset - a place of varying habitats and some industrial archaeology. This was followed by a most rewarding visit to Cheddar Gorge - to see a wide variety of flowers including the Cheddar Pink (50). On July 28th was held the Annual Nothing Evening and barbecue at California Country Park - as usual ably organised by Humphry Bowen (34).

Presidential Address 1986
Tadley-God-Bless-Us or Nothing is Forever.
Alan Brickstock.

As I have remarked previously, if you choose a title which is vague enough and enigmatic enough, then when it comes to the put-to, you can talk about almost anything; if you add a sub-title as well, even better!

I intend to mix some History with my Natural History, and to include not only Tadley, but also surrounding areas such as Aldermaston and Brimpton.

If we go back far enough, the whole of this area was part of Windsor Great Forest, inhabited by animals such as wolves, wild cats and wild boars, and must have seemed to be a pretty permanent environment. Moving onwards in time, the Romans arrived and brought with them not only new technology, such as how to make baskets from withies and pottery on a wheel, but also many species new to Britain, probably including hornless sheep, pheasants, pear, damson, cherry, peach, medlar, quince, mulberry, fig, walnut, poplar, chestnut, laurel, peas, and radishes.

Tadley itself probably dates from Anglo-Saxon times, the suffix "ley" being a Saxon word meaning "clearing". Various spellings have been used, including Tederlie, Titherley, Tuderley, Taddele and Tadlow. Crow's heads sold in Tadley in 1532 for 2d a dozen, while pork and veal were 1/2d a pound. Standard weights for bread were introduced by the Government in 1712; 1d loaves to weigh 6oz., 2d loaves 1lb. 3oz. and 1/6d loaves 11 to 14 lbs! The population in 1730 was 404, and by 1813 this had risen to 1327.

Notable natural events include a great frost which lasted from Christmas 1697 until the following March; a terrible hurricane in 1703 and a terrible thunderstorm a few years later, both of which did much damage in Pamber Forest; and an earthquake in 1775, followed by one of the best harvests ever.

The forests eventually became reserved for Royal hunting, poaching being punished with great severity, such as putting out of the eyes.

Aldermaston Court was once the centre of a very large and highly desirable estate. It is mentioned in Domesday Book, where it is called Aeldremanstone, and was previously part of King Harold's estate. It was later claimed by William the Conqueror, and at that time included a mill, two fisheries and a church. It remained in possession of the Crown until about 1100, when Henry I granted it to Sir William Achard, together with the manors of Finchamstead, Sparsholt, Challow and Colthorpe. It remained in this family until 1361, when these "faire landes of Barkshire" passed to Thomas Delanere, and later to the Forster family, who owned it from 1490 until 1700. The first mention of the Manor House is in 1321. Sir Humphrey Forster enlarged and rebuilt it in 1636, and in order to pay for this work, a considerable amount of property, including the old family estate at Harpenden, had to be sold.

During the Civil War, the estates were seized by Parliament, but were restored to Sir Humphrey in 1650.

In 1757 the estate passed to one William Congreve, who came into residence about 1780, a disastrous occurrence. Realising that he could make a fortune from the trees on the estate, he cut down a vast amount of timber between 1801 and 1838, to the value of £41,233-3s-7d, a huge fortune in those days.

In 1802 he purchased the Ufton Court estates, subsequently felling much of the timber and stripping some of the panelling from the Court. When this was sold in 1837, it was described as 'unfit for a gentleman's residence'.

William Congreve did, however, replace many trees, most of the fine old specimens there today dating from this replanting.

Aldermaston Court was partly destroyed by fire in 1843. William Congreve intended to restore it, but he died two months later. After his death the estates were eventually bought by W. Daniel Higford Bun (or Burr?), who built the present mansion, 200 yards south of the old one, between 1849 and 1851.

Eventually, in 1939, the estate was sold and broken up. The Court was used by the War Office as an ATS training depot, and they were followed by the USAAF.

The area which is now AWRE became an aerodrome, built as a training unit for the RAF, and transferred to the eighth USAAF in 1943. It was used as a support 'drome for the D-Day and Arnhem landings.

The two main tree-lined avenues shown on old maps of Aldermaston Court became the main runways of the aerodrome, and these are still two of the main roads on the AWRE site, although, sadly, all the old bordering trees are long since gone. Some ancient specimens do survive in another part of the site, however.

The largest of the ponds on the AWRE site, the Decoy Pond, which covers about six acres, is a glaciated hollow whose shape may have been modified. Decoy Ponds were an idea brought from Holland in the seventeenth Century, and this one may have been the fourth one to be established in Britain. A dog was used to decoy ducks into the funnel-shaped end of the pond, a net was dropped over them and they were easily caught. It is now stocked with fish of various species and used by the angling club, but more importantly it is recognised by the NCC as an excellent site for dragonflies and damselflies, and 20 of the 44 British species have been recorded here.

Ponds are no exception to my subtitle; left to their own devices, sediment from the inflowing water tends to silt them up. This process is an ever accelerating one, leading to colonisation by Reeds, Tussock Grass and the like, eventually producing dry land.

The rear part of the Decoy Pond was at some stage divided from the main pond by a narrow causeway. The main inflow to the pond is into this subsidiary pond, which has been rapidly diminishing over the last few years, and the silt was beginning to encroach into the main pond. A few years ago there was quite a nice marsh behind this small rear pond, containing Bogbean among other things, but by the spring of this year this was almost dry land. However, the small pond has recently been dredged to a depth of five or six feet. Some of the silt has been used to make a bank, so deepening the former marsh area. In the process, some things have been lost; an area of reeds and a lot of Water Lilies etc. However, all management is a matter of compromise, sacrificing some things to favour others.

A moth-trap has been run on site for the past ten years, and over 100,000 specimens have been examined. 412 species of moths, almost half the British total, have been recorded. We also have 32 species of butterflies.

90 species of birds have been seen; 23 of these breed on site, including a pair of Kestrels nesting in the door girders of one of the remaining old aircraft hangars. A further seven species are frequently seen and probably breed there. About half of the species are seen regularly, the others being rarer or occasional passage visitors.

379 plants have been recorded, pride of place going to a large number of

superb Marsh Spotted Orchids. These grow on a protected roadside bank, whose mowing is carefully controlled. They were beginning to be overgrown by advancing Birch scrub, but clearance of this over the past two years has greatly improved their number and quality. This year approximately 700 blooms were counted, many of them two feet or more in height. Blue Fleabane and Sticky Groundsel, seen in small numbers on the site a few years ago, have now become abundant wherever ground is disturbed. Weld and Vipers Bugloss are also increasing. Common Spotted Orchids grow in some numbers in various parts of the site, Green Winged Orchids come and go, and there is a nice colony of Early Purple Orchids.

A single specimen of the widespread but local fern, Adder's Tongue, also called Serpent's Tongue or Christ's Spear, was found in the Eastern extremity of the site in 1984, and the following year about 100 specimens were found at the opposite extremity, flourishing in an area recently battered by lorries and equipment.

In the Fish Pond, at the opposite side of the site to the Decoy Pond, Fringed Water Lily, rather uncommon in Britain, is abundant and flowers profusely every year, and Sweet Flag, also uncommon and usually a shy flowerer, flowers regularly.

A nearby area, vacated by some temporary buildings, now has a good flora, including good specimens of the rather uncommon Heath Cudweed.

Other records include 258 species of Fungi, some in great numbers, and including several uncommon ones, and 70 Mosses and Liverworts, some of these rather uncommon for the area.

Apart from the site itself, there is also a large AWRE housing estate close by. This has produced some surprising records over the last few years. One roadside verge, plus a strip of grass between the pavement and the adjacent house, had a fine show of Bee Orchids in 1983, when 64 blooms were counted. In the following year there were 71 blooms, and in 1985 there were only 34 blooms. Alas, there have been arguments over leaving the area unmown, and all the flower spikes were mown off this year. However, they have probably been mown off many times in the past, before their discovery, so they will probably appear again.

In the front lawns of two houses immediately next to this plot, about 200 Autumn Lady's Tresses appeared in the Autumn of 1983. This small Orchid is a species which can survive regular mowing, and appears rapidly in great numbers in lawns which have not been mowed for some weeks, as was the case here after a long hot, dry spell in the summer.

A back lawn to one of the older cottages, close to the modern estate, has a group of about 200 Green Winged Orchids. Interestingly, the owner says that they never appeared when she was a girl, as geese grazed on that area. The front lawn of this cottage also has some Autumn Lady's Tresses.

Aldermaston Court and its remaining grounds were eventually bought by AEI, who not only put up a large number of buildings, but also built a Research Nuclear Reactor, opened by the Duke of Edinburgh, on the shore of the lake. This, at that time, might have seemed to be a pretty permanent change, especially since no-one then had any experience at removing the many tons of radio-active material of an unwanted reactor. However, when AEI eventually sold the Court, they completely removed the reactor, of which no trace remains today. The Court was bought by a Correspondence College, followed by the present owners, Blue Circle Cement, to be established as their prestige headquarters. They are most concerned with preserving the wild life of the estate, and had someone from Kew to spend three months doing a complete survey of the parklands. They have restored the beauty of

the lake, and put up some very large and superb buildings, besides which the splendid old Court is quite dwarfed.

A fine old greenhouse still remains, with a lot of Ivy-leaved Toadflax on its walls, and some old below-ground steps have some good Hart's Tongue Fern growing on them. Yellow Figwort, an introduced species from central and Southern Europe, grew there in 1984, but was not found this year. There are Muntjac Deer in the grounds.

Interesting casuals in the area include several specimens of Gallant Soldier, a native of South America, in Britain growing most commonly in the London area, discovered in an overgrown flower bed at the front of the Hind's Head Hotel at Aldermaston in 1984, and a few plants of Spring Beauty which have managed to appear in a well-dug Dahlia bed at AWRE for the last few years. This is an introduced species from the Pacific coast of North America, locally abundant in Britain, and is undoubtedly seeded from a garden at nearby Raghill, where it is an abundant and persistent weed.

Considerable areas in the neighbourhood have been devastated by gravel extraction. Some of the resulting pits, notably on the Wasing estate, have been used for refuse disposal, and subsequently covered with soil and 'reinstated'. One such area developed an excellent flora within a couple of years of restoration, including large numbers of Centaury, Yellow-wort, Scarlet Pimpernel - in colours ranging from the usual scarlet to very pale pink - and a few Heath Spotted Orchids.

The area is now being covered with a further layer of soil, destroying the present vegetation, but I look forward to seeing what appears in the next couple of years, if the land is not used. In the year following the appearance here of Yellow-wort, this species was recorded at AWRE for the first time.

One shallow gravel pit at Wasing, covered in Reeds and Great Reedmace, is now an SSSI, with 21 species of dragonfly and damselfly recorded from it, a very high total for one small area.

The remaining old woodland at Wasing is excellent for fungi, including an uncommon Boletus which parasitises old Earthballs.

Brimpton gravel pits have been left as amenity lakes, and the banks have recently been landscaped. Cowslips are abundant here, Common Spotted Orchids are numerous, and there are a few Bee Orchids, as well as Celery-leaved Buttercup, Trifid Bur-Marigold and Haresfoot Clover. Many species of water birds frequent these lakes, especially in the winter. Species seen here this year, by Gordon Wilson, include White-fronted Geese, Gadwall, Shoveller, Widgeon, Redshank, Dunlin, Snipe, Ruff, Black Tern, Quail, Sparrow-hawk and many others.

Also good for birds, including nesting Heron, is Aldermaston gravel pit.

Some rich, "unimproved" meadows at Ashford Hill, warded by Peter Brough, are now a National Nature Reserve, and have many species of plants, including Dyer's Greenweed, Marsh Valerian, Tubular Water Dropwort, Meadow Thistle, Water Violet, all of these being widespread but local; as well as Yellow Rattle and large numbers of orchids.

Not far from this reserve, at Baughurst, there is a woodland stream whose margins are carpeted with thousands of Snowdrops, with both single and double flowers, as well as a few Wild Daffodils.

A woodland garden at Baughurst had a few Narrow-lipped Helleborines in 1984, and also Violet Helleborine in the following year.

There is a fine meadow to the south of Tadley, close to Pamber Forest, with many species of wild-flower, including Bog Pimpernel, Common Twayblade, Common and Heath Spotted Orchids, Dyer's Greenweed, Grass Vetchling, Ragged Robin and Yellow Rattle, as well as various uncommon grasses.

Tadley Common has Common Sundew, Bog Asphodel, large numbers of Heath Spotted Orchids and quite a lot of the widespread but uncommon Petty Whin or Needle Furze. This last species also grows on nearby Wigmore Common.

Upper Moor's Gully has a good flora, including the locally common Hare'sfoot Clover, and is frequented by many butterflies, including Holly Blue.

Benyon's Inclosure many of us know well from bat evenings round the pond with Mike Hardy; particularly interesting are the Daubenton's Bats. It is also an excellent area for fungi.

Along the river Enborne near Brimpton there is a meadow where large numbers of the uncommon Meadow Saxifrage grow, despite grazing by horses. There is also an excellent show of Marsh Marigolds along a stream flowing through this meadow. In the adjacent Inwood Copse, Moschatel is to be found, and there are numerous clumps of the parasitic Purple Toothwort, here growing on the roots of Black Poplar. This species, originating from Northern Europe, is very uncommon but occasionally naturalised in Britain. Another location for it is round the pond in Prospect Park in Reading. Common Dog Violets, Ramsons and Bluebells also abound, and there is a single clump of Monkshood. Meadow Saxifrage also grows in another meadow near to Brimpton village.

Pamber Forest still holds many delights; extensive coppicing over the last few years has let in a lot of light and encouraged the orchids, Bluebells and Wild Daffodils to bloom. Some of us went, last year, to see the den of Adders which I have been watching for the last few years, and despite the deluge which descended, we did see some of them. On many occasions I have seen as many as 10 or 11 just emerged from hibernation in February or March, sunning themselves to gather strength before mating and dispersing until winter. As with most of the old woodland in the area, fungi of many sorts are plentiful.

Tadley was known in the Gipsy world as Tadley-God-Help-Us, but in view of all the good things which grow around it, I think my title is clear, and, since this is Children's Book Week, and since, in five day's time, it will be Winnie-the-Pooh's sixtieth birthday, I shall echo Christopher Robin, and say 'I hope you do too, because that's all the explanation you're going to get'.

References

1. Davidson, Florence.A.G. 'The History of Tadley Parish' 1813.
2. Details of Aldermaston history from AWRE News.
3. Milne,A.A. 'Winnie-The-Pooh' Methuen 1926.

"It seems like yesterday"

(some reminiscences in natural history)

B.R. Baker

Madam President, many years ago the Society's first meeting of the winter session was, and still is today, the annual general meeting. Those early meetings differed in that the recorders read out their reports as part of the business - it was tedious both for the recorders and for those who had to listen. Since the early 50's we have continued the much better practice of publishing recorders' reports in our Reading Naturalist.

Just for this evening however, I would like to go back to the old system and bring together one or two snippets of unpublished material from reports of the 30's and 40's augmented with some personal recollections. The result will be short in scientific content but long in anecdote, for, having been invited to come up with something, this is the way it has come out. Please bear with me.

It seems only like yesterday that a former editor of our Society, Donald Leatherdale, asked me if I would arrange to meet the Rev.S.E. Chavasse here in the Museum, and read through some of his notes which were due for publication in our Journal. Part 1 of his "Reminiscences in Natural History" had appeared in 1968 but had contained a fair number of errors and our good editor, who had had such problems in deciphering the hand written script, was trying desperately to avoid a second part catastrophe.

The plan seemed to work well and the Rev. Chavasse talked away for most of the morning, first of all correcting previous mistakes. "It was", said he, "Cranbourne and not Wicken Fen where he had taken the brown hairstreak butterfly" - and "it was the five foot snake that was bitten by the half grown rat, - and not vice versa"! We had altogether an interesting morning and I fully commend that you read those reminiscences of a kindly and very knowledgable naturalist.

I mention this episode because history seems to be repeating itself for I too have been asked if I would commit to paper some memories of my years with the Society. In saying that I would do my best I must assure our editor at the outset that she will not need to decipher my handwriting but that she may occasionally have difficulty in reading my typewriter.

Perhaps one great advantage of joining a society at the age of 12 is that by so doing one can knock up half a century and then, still being inexperienced, have the audacity to talk about it. For it really does seem only like yesterday that I received a letter from Walter C. Fishlock, thanking me for my enquiry as to membership but suggesting that I should first call at Reading Museum and arrange to meet a Mr. Conrad Runge. I can still see that letter - it had real printing at the top, and, other than my birth certificate, was the only other official document that I possessed.

Con. Runge, an hon. curator of Reading Museum and past president and secretary of this Society will still be remembered by some of you. He was another naturalist of old school, a real field man and a great encourager of the young and it was he more than anyone who fostered my interest in natural history. It was he who first took me behind the scenes at Reading Museum and I remember that those long back stairs creaked just the same in 1936 as they still do today.

He was present on the first summer excursion I ever attended - the annual

pilgrimage to Padworth Gulley. It had rained all that Saturday morning and I half hoped that it would continue so doing so that the excursion would perhaps be cancelled and I could avoid meeting a lot of strangers. However, the sun came out and I hesitantly turned up at Reading Station to be shepherded by Mr. Runge into a compartment where I was welcomed by a smiling Miss Butler, for so many years the Society's Botany Recorder.

Before adding a few of my own memories of this, or later excursions, it would be more appropriate to mention one or two other members of this Society - some whom I came to know well and others whom I would have given much to have known, and all of them accepted authorities in their own field.

Con. Runge would often speak of William Holland, a founder member of our Society and the doyen of local entomologists whose word was never challenged. Once, when we were sitting under a favourite oak tree in Pamber Forest eating our sandwiches Runge said "You wouldn't be doing this if you were with Holland, he'd work all day and you'd eat as you walked around, but what a difficult old man, though with an eye like a hawk".

Now let me quote you a little of Holland's obituary written by H.E. Wallis in 1929.

"On Tuesday at his home in Elm Lodge Avenue, Reading in his 85th year passed away one of the finest naturalists which Reading has ever produced. Born in humble circumstances and before the days of board or council schools, and while supporting himself as a working shoemaker, and long before there were public libraries or a museum in our town, Dr. William Holland succeeded in learning almost all that could be learned of the butterflies and moths of the south of England and more especially of Berkshire, Oxfordshire and Hampshire. Under extreme difficulties of narrow means and a house shared by others he worked at his life-long study and accumulated the really remarkable collection which, owing to the wise liberality of the late Mr. George Palmer - who bought it from the subject of this memoir and presented it to the Borough - has been one of the most constantly used and most treasured exhibits of the Town Museum and the inspiration of successive generations of young naturalists.

The difficulties which Dr. Holland surmounted were almost insuperable for, in his early days the bicycle was unknown, and visits to distant localities entailed long and exhausting road tramps before the goal was reached, and equally long counter-marches when the day's (or night's) work was over. Not every covert owner was willing to allow a working man to patrol his pheasant preserves night after night with a dark lantern, nor, if the squire gave permission, was it certain that the keepers would allow the liberty to be used. Dr. Holland had occasionally to submit to being roughly handled by jealous or suspicious officials who were hardly persuaded of his innocence. Jealous rivals have been known to drop paper bags containing the remains of a sandwich about the coverts - bags inscribed with Dr. Holland's name - with the result that, say what he would, he would be warned off the property. But, little by little he won the confidence of most owners of woodlands and of all collectors. Later in life and as a result of his well known powers of observation, a publishing house approached him with projects for a book, but he was deficient in the arts of description and failed in dress his knowledge for the market".

Maybe that was so, but it is Holland's name that is on the Lepidoptera section of the Victoria County History for Berkshire published in 1906 and, although virtually no other documentary evidence remains, judge for yourselves of his powers of observation from this letter which I came across in some of Runge's papers. It was written from Thetford, Norfolk on 14th. May 1917.

"Dear Runge, lay this weather last out for you - though it is often overhot at mid-day sometimes. Don't forget bombylifomis and fuciformis at Butter

Wood - in the fairly broad rides where the sun comes well in and where the bugle is in bloom. Walk about from clump to clump of these and you will find both species hovering and pretty easy to catch. A good place used to be on the south side of the wood. Up the road we usually go and then along the east edge of the wood towards Greywell and turn in at a gate on right a little before you come to cottages. Then keep up along best rides along south side. You can find your way out to the road again by putting your back to the south. The best places for lucina would, of course, be those rides where primroses abound. If it is sunny hamula will fly from side to side - consortaria and biundularia on the oaks and plenty of geometers in them by beating. If you come on bilberry you can stir up advenaria. At Pamber try again to find the place for artemis and you would probably get lucina by looking for primrose place. See if lily-of-the-valley is out in place I showed you - among bushes to right of ride. And keep look out for the missing wood white. Found nest of snipe yesterday, but hard set. Yours sincerely, W. Holland".

How I would like to have met the writer of those words!

The year 1929 in which Holland died also claimed F.W. Cocks another of our early members whose beautifully prepared collections of insects, shells and minerals were later presented to Reading Museum. With these, by great good fortune, came diaries, photographs and notebooks - I say by great good fortune because Holland's diaries, so Runge told me, went to a brother and were lost. Cocks was only 42 when he died and had been a life-long friend of another Reading entomologist, H.L. Dolton. They worked together in the field from 1908 to 1929, usually cycling to their favourite haunts, though Dolton has a note for 27th June, 1927 which reads "we seldom now get out together much owing to his half day being on a Saturday and mine being on a Wednesday. Also the last twelve months he has been riding a motor cycle which enables him to get about too fast for me on a push bicycle".

Dolton I came to know well. In 1949 when his health appeared to be failing, he presented his collection of macro and microlepidoptera to the Museum on the understanding that, should his health permit, he could from time to time continue adding specimens. Fortunately, he continued his interests for almost another twenty years and he became a familiar little figure to those of us who work in this building. He was a very methodical little man and kept copious notes of how his collection was progressing. He was also very helpful to us in checking over the naphthalene content of the large number of insect cabinet drawers possessed by the museum. One day the naphthalene proved too much and as I went up into the bug room, an enormous sneeze exploded at the far end where HLD was leaning over an opened drawer of caddisflies. The result was quite devastating and poor Dolton was beside himself with apologies for there, in place of an orderly row of Holocentropus stagnalis was a line of bodies, quite devoid of wings, but with each pin still carrying a neatly written locality and determination label! Our distinguished hon. curator at that time was Dr. Eric Burtt, a matter-of-fact Yorkshireman and one not given to showing emotion. On hearing the above story however, he mind saw the event happening and his eyes brimmed with tears of uncontrolled mirth.

Lewis Rudland, a fine lepidopterist in the tradition of Holland completes the small group of Reading and District Natural History Society members who, either by hearsay, or by example, guided my path and taught me all. Runge taught me setting of insects, Rudland showed me refinements of the method, Dolton showed me the full use of eyes, Holland's notes to journals and Cock's meticulous diaries made me glad that I could read. All of them taught me the value of patience.

On that first excursion of 1937 my memory is of Dr. Smallcombe grouping us together in a flowery field just beyond Badworth Mill and by his uncanny powers of imitation persuading a cuckoo to reply and them to come even closer into a nearby tree.

Our late friend Leonie Cobb wrote movingly in her presidential address of 1973 of the early days of our Society and made reference to the Discussion Group. These were 'doers' as well as 'listeners' and membership was by invitation. On 12th May, 1937, Coronation Day I was invited to join them on a cycle ride to Thatcham where the then extensive reed beds were broken only by the Moor Stream and its feeders or by the main Kennet to the south. On that day I was shown how to find scarlet tiger and drinker moth caterpillars, the latter, as Runge pointed out, being highly parasitised. This state is indicated by the undersized caterpillar - still life-like except for a stiff and somewhat swollen appearance. That evening we came home across Greenham Common, a place of boggy hollows, heather and birch and not an aerodrome in sight!

From the 9th to 12th July, 1937 the Third Annual Congress of the Society for British Entomology was held in Reading and Mr. Runge was our Society's representative at the meetings held at Reading University. The photograph on the exhibits table shows the top brass assembled for their official photograph - and top brass they were with many of them becoming household names at the British Museum (Natural History). The Excursion on Sunday, 11th July, was an all day do at Silchester Common and Pamber Forest with tea in the village hall to bring matters to a close.

Messrs Runge and Rudland were off early by bicycle to meet the official coach when it arrived at Silchester - I was detailed to accompany Mrs Runge at a more leisurely cycle pace - a frustrating experience when I was dying to be in at the deep end. I remember the heavy scent of the gorse in the warm air as the two of us finally pedalled sedately across the Common and when I managed to seek out my two friends amongst the many strangers I learnt that a purple emperor had already graced the occasion. It seems that as those two advance scouts cycled up the steep rise at Mortimer West, Rudland remarked that a white admiral was asleep near a patch of roadmenders gravel at the roadside. Runge wasn't quite satisfied and went back to look. You can guess the rest and how I hated that later ride with Mrs. Runge for not only had I never seen a purple emperor before - neither did I possess a white admiral. Justice was done however, for Rudland, a man of immense experience had nevertheless never before taken a purple emperor. For years afterwards - each time I passed that patch of gravel my heart jumped with expectation - how innocent are the young!

In October of 1937 Mr. Runge initiated me into the rites of the placing of treacle on trunks - 'sugaring' in entomologists' jargon - we went to Hardwick Woods but it was the wrong sort of night, cold and clear, though I was shown some green brindled crescents and common chestnuts.

The following spring of 1938 I thought that I might try again - though this time in Coley Park where I had a permit of entry from the head gardener. The Park at that time was a vast open area with scattered groups of trees and cattle at pasture. My father came with me and by dusk we had put up a good sugaring run and then waited impatiently for darkness. Finally, by torchlight we began to examine the first trees but then became aware of dim shapes approaching and of a sudden acceleration of hooves. This proved too much for my father who, with a call to follow him, put on a truly commendable burst of speed and then, by torchlight, finished with a clearance of the iron railings straight into Bucknell's Lane. We never knew whether any moths came to those sugar patches, neither did we return for brushes and treacle tins - a herd of harmless, inquisitive cows had snookered the entire evening.

During that year of 1938 I tailed along at a number of Society excursions but, more often than not, Runge would take me on numerous additional trips. During the school holidays of August he said that we should go to Watlington to look for clouded yellows - why they should be at Watlington I didn't query -

but he was absolutely right, although mine didn't come along until about 6 o'clock in the evening.

The next month, when Mr. Chamberlain was making his fateful trip to Munich, I had a week in east Kent where clouded yellows were very common. My diary records, 5 on Monday, 1 on Wednesday and 17 on Thursday and the truth of migration began to dawn and to explain my solitary capture at Watlington.

The 15th April, 1939 was my first proper night's mothing though mother had asked Mr. Rudland to try and have me back before midnight. Ruddy had an impressive lamp - a German Petromax - and he put it on a white sheet under a male willow bush in full catkin. We were at the edge of the pond on Burghfield Common and, as we shook the bush I remember some moths landing in the water - but many more showered down on to the sheet. Never had I seen anything like it and, being very short of boxes, it was a case of letting some of the early captures go in order to be able to keep one or two of the later, even more impressive, treasures. Before going home, we cycled down to Pullens Pond, just off the road to Grazeley, and, in the light of that Petromax lamp Ruddy showed me a mallard's nest crowded with eggs and carefully hidden low in an alder stump.

Later that year, wartime put paid to nocturnal expeditions but there was plenty to do in the daytime with net and beating tray and tree trunks to search and pupae digging as autumn approached.

The heaths of Burghfield were far more open in those days and on 22nd March, 1940 Good Friday - the Discussion Group cycled out there. On the way we paused at Burghfield Hill and I apparently went up to a rook's nest and recorded "no eggs so far". At Pullens Pond many toads had paired but it was too early for spawn, the chiffchaff was singing up above somewhere and 2 female oak beauty moths were found on tree trunks. We ended the day by having tea in the old Three Firs Inn which used to stand at the junction of the Mortimer and Padworth Common roads and from whose windows you could admire an open, unimpeded Burghfield Common.

The upper parts of Padworth Gulley were also marvellous collecting grounds - there were carpets of ground ivy and bugle and on 18th May, 1940 the place was alive with cinnabar moths, argent and sables and, best of all, two broad bordered bee hawks hovering over the bugle. Both species of small fritillary, pearl and small pearl bordered occurred there, you could find an occasional dark green fritillary in its proper season, and in 1941 and 42 the high brown fritillary swarmed over that wide, unspoilt top end of the Gulley.

It was now becoming evident that to find new species would mean longer cycle rides and it was to Rudland that I again went for information. He had discovered so many places - a trackway near Aston Tirrold for small blues, a place called Aston Rowant where wood tigers abounded and, even further afield, an Iron Age Hill Fort called Letcombe Castle west of Wantage. It was a long ride there on 9th June - the weather was sultry and I was caught in a storm on the return journey, but who cared? I had seen adonis blues, green hairstreaks and, for the first time, cistus foresters.

If Letcombe Castle wasn't far enough, why not try Silbury Hill west of Marlborough, where so Ruddy said, one could find marsh fritillaries. It was only 42 miles each way and on 16th June, 1940, after lunch, three of us set off. We finally reached the Hill at 5 o'clock and my two friends climbed to the top for a sit down. I wondered what had happened to the marsh fritillaries, but it was now dull and uninviting weather and no sunshine to raise flagging spirits. Had I known better I might have tried earlier in the month or, at least, earlier in the day, but at 15 everything is possible and one keeps looking. It didn't help matters when the other two said we

should be starting back for Reading, but then, there, deep among the grasses and plants was one at rest, and one was quite sufficient and we went home!

I would like to mention one or two happenings from 1941 and one from 1945 for in those years we owed much to the help of small, shiny chrome and black motor cycle which, when petrol coupons allowed, opened up a bright new world.

Hence, on 18th April, 1941, Easter Monday, we went back to Silbury Hill, taking Mr. Runge on the small apology of a pillion seat, and how much easier than that visit there of last June. My diary records that a dozen marsh fritillary caterpillars were found, and then this apparently key piece of information, that Mr. Runge's beret blew off as we sped back through Savernake Forest! The following month, May, was a decidedly unhealthy one for petrol coupons, they had withered away and my most ambitious trip - long planned during weather months - had to be by bicycle.

Runge and Dolton had hinted of a gem of a locality somewhere near Stanton-St-John called Waterperry but they, understandably, wouldn't or couldn't be more specific. On 18th May I decided to try and find the place and, having left Reading at 9 o'clock reached the village of Forest Hill at mid-day. As one looked across at the ground stretching away down below the village there seemed to be woods everywhere but, being wartime, not a single signpost to help a stranger. I tried a stony lane down below a pub but it didn't seem right and I pushed on to the next village, Stanton-St-John. The road wound down past a church and then just kept going on and on. I sat down for a rest amongst the riot of vergeside flowers and vividly remember the orange tips which were constantly patrolling my flowery surroundings. Suddenly, an exuberant party of cyclists came whizzing down the hill and through their dust, which floated over me at the roadside, I noticed beating trays sticking out of saddle bags, and then they had gone. If only I could catch up with that cheerful group of undergrads it could be my salvation and I hurriedly picked up my bike and set off round the bends of the dusty road. At last the bends finished and, there before me stretched a half mile of straight tarmac, and halfway along that tarmac, on the left, was the last mudguard disappearing into the sloe bushes.

I could hear voices all over the wood (and very optimistic they sounded too) so I worked away on the small sloes outside the wood. Long did I scan that beating tray for the unmistakably shaped hairstreak larvae but at a quarter past five I gave up and headed back for Reading.

Retracing those miles back homewards I knew that I would try there again - it had to be a good place - the smell was right and I had done something wrong.

By way of recompense and with the aid of some petrol coupons I took Mr. Runge the following month to see that hill top camp near Wantage. The following words are from his Recorder's Report of 1941:-

"The 15th June was a day to look back on with pleasure. On that day I went with Brian Baker to Letcombe Castle, just beyond Wantage. To be precise, I should say that he took me as I did the journey on the back of his motorcycle. Letcombe Castle is apparently an ancient British earthwork (I am no archaeologist) and all that one sees now is a deep, wide trench in the form of a huge circle. The vegetation, which is of the downland type, is very luxuriant, rockrose and lady's fingers being particularly common. The weather was dull and cloudy when we started but just before we reached our destination the clouds cleared away and the sun shone in a cloudless sky for the rest of the day. Insect life was abundant, at least sixteen species of butterfly being seen, some of them

abundantly. Together with these were some day-flying moths, foremost among which was the *cistus forester* a little golden-green jewel of a moth, very local but plentiful where it does occur. Brian was soon busying himself in the hot sunshine making up his series of green hairstreaks and dukes of Burgundy etc - the heat was not going to get him down. He was like the small boy who was doing himself well at a school treat. His teacher saw him struggling with a large sized doughnut and looking decidedly green "Aren't you feeling well Jimmie?". "Not very Miss, but I'll feel a lot worse than this afore I gives in". Brian was far from giving in and made full use of his opportunities. As for me I was content to proceed in a more leisurely fashion and act the part of the looker on. Dramas of insect life were being played out all around me and it was hard to decide on which to concentrate. I cannot say that I made any original observations but verified several that had been recorded by others".

Runge didn't mention a happening that occurred at the end of the outward journey. We were almost there and the Ariel bumped its way along the rutted Ridgeway and into the Castle entrance. I stopped and waited for my passenger to get off the tiny pillion seat. Apart from the sound of the wind through the grasses I heard nothing and turned round. He wasn't there! He had been catapulted, quite safely, down into the soft, grassy depths of Letcombe's ditch!

On 22nd June I cycled back to that wood near Oxford, leaving Reading at 6 a.m., breakfasting in a railway carriage coffee stall at Wheatley and down into the wood by 9 o'clock. There were marsh fritillaries and foresters and, best of all, plenty of brown hairstreak larvae, the first I had ever found, and which I must have missed on that first visit on 18th May when they would have been pretty small. Ruddy had always said brown hairstreaks preferred the smallest of bushes on which to lay their eggs, - as usual he was right. I knew this place would be good and, petrol now allowing, took my mother there on 5th July for a spin in the country - we arrived about 3 o'clock. There were white admirals and silver-washed fritillaries flying everywhere and, near the roadside, a small slow-flying white butterfly proved to be my first wood white. My mother said that she would enjoy the sun where we had parked the motor bike, so I went into the wood for the first time. For some reason I kept going down that damp clayey path through the trees and then came out into a large field where cows were grazing. Across the centre of the field stretched an enormous blackthorn hedge with, at intervals, an odd oak or two breaking the line. Along the top of that tall hedge were active little groups of small, dark butterflies-black hairstreaks!! I had to call at Mr Runge's on my way home and tell him the news - also to leave with him 2 live female black hairstreaks.

He now had to see this place for himself and 2 weeks later on 20th July Roy Coster, a former member of this Society, and I cycled up to Caversham and at 6 a.m. the three of us set off. Runge at that time was 67 and did the journey as well as his very much younger companions - again we were in the wood by 9 o'clock.

I left the others to see to their bikes and went straight out to that hedge beyond the wood. As I walked towards one of those solitary oaks a white admiral, or so I thought, flew past me and then, turning round, came back and flew up on to an oak spray a few feet above my head. The underside eye spots brought back vividly the memory of the patch of road menders' gravel where Runge and Rudland had seen that purple emperor in 1937 - never did hand shake more than now! When I rushed back to our bikes the others were still fitting up their nets and could hardly believe my story until shown my first iris. Another specimen was glimpsed during the day but Runge was satisfied at seeing his first black hairstreaks, though now far past their best.

Purple emperors have long been known to be attracted to the scent of all manner of decaying animal remains - I well remember seeing a male iris busily feeding off a smelly squirrel on the keeper's gibbet in Pamber - and Roy Coster thought we might try a modification of the technique. Roy was, at that time, an errand boy for the firm of Eighteens, fishmongers in West Street, and had access to an unlimited supply of fish heads. So it came to be that the three of us cycled again to Hell Coppice, on 3rd August, 1941, but accompanied this time by a disgusting odour from one of the bicycles. At least we proved that fish heads were ineffective, even the flies seemed unimpressed. We left, reluctantly, about 6 o'clock and going down that straight road outside the wood I saw a purple emperor sitting at the roadside. Calling to the others to stop I went to investigate and remember a car passing me as I went back. Strangely in spite of that car, the purple emperor was still there, and probably had been for some time as it was dead. More to the point, the car, which had no effect on the butterfly, had much more on Mr. Runge's back wheel as his cycle lay at the roadside.

As I recall subsequent events, the apologetic driver ferried Conrad to Oxford station, bike and all, and Roy and I were detailed to explain matters to Mrs. Runge should we have reached Caversham first.

Soon after this expedition the war really put paid to our activities, but Runge shall have the last words - they refer to a few days of my embarkation leave and come from his Entomological Retrospect, 1945 -

"As Brian Baker was very keen to see our largest butterfly, the swallowtail, in its native haunts, a visit was made from 5th to 7th June to Wicken Fen, a well known locality about 9 miles from Cambridge. The journey was made by motor cycle and I could say much about this ride but that, as Kipling would say, would be another story. Unfortunately the weather was cold and showery and we were doubtful if we should be successful in our quest. When we arrived on the Fen it was drizzling with rain and though we did kick up one or two typical fen moths, such as the silver hook and silver barred, no swallowtails were seen. Then after lunch, taken under a stunted blackthorn, the sun made feeble attempts to shine and during this period two or three swallowtails, rather the worse for wear, were seen. We had previously unsuccessfully searched many plants of milk parsley, the food plant of the swallowtail, but at last at one spot I was pleased to find an egg. Diligent search resulted in about a dozen each. Barnes, the bailiff whom we met shortly afterwards, told us that in May the butterfly was abundant all over the Fen, even visiting the gardens in Wicken Village. In a normal season we should have been in time to see it at its best. However, Baker had seen this fine insect on the wing and found the eggs so the journey was considered to have been well worth while"

When Runge wrote "I could say much about this ride" he was remembering the puncture we had on the return journey, somewhere near Letchworth. As we pushed the bike along the road we saw a group of Auxillary Fire Service men idling the time on the grass outside their wartime station. They offered help which we gratefully accepted, and before long the tyre was vulcanised, pressurised and the wheel put back on. On that homeward journey Runge was unusually quiet, except for periodic 'oohs' and the occasional grunt. When asked if in trouble I could get no satisfactory reply. We arrived back in Caversham gone midnight and, as Mrs Runge hovered around he thanked me and said goodnight.

Later that week, as I took my farewells of them both, Mrs. Runge confided "oh, he was in a state - blue in places".

Why ever didn't I think of letting a little of the pressure out? - the

moral here is "confuse not a motorcycle with a fire engine or an ill wind will fill your tyres"!

Whilst I was abroad Runge kept me well informed of things back home with the Society. The following words show his delight on a return in 1945 to nightwork in Pamber Forest. He wrote lyrically - "July was notable in-as-much that after six years it was possible to go sugaring once more.

Pamber Forest was chosen as the best place and three excursions we made with fair success. It was delightful to be in the Forest at night once more, wandering through verduous glooms and winding, mossy ways listening to the brown owl winding his mellow horn, and the churring of the night jar. As night came on we would visit our treacle patches where the light of the torch would be reflected from pairs of topaz-coloured eyes shining like tiny headlamps".

In conclusion, I realise that much of the foregoing refers to a carefree, few years - to a time when to be seen with a butterfly net was thought to be eccentric rather than anti-conservationist. If told today that he could no longer swish a net with impunity in Pamber Forest, old Holland would turn in his grave. He lived in, and I too have recounted, a time free of restrictions, when the kite net was as much a part of our paraphernalia as a stout pair of shoes. Therefore let me say to any aspiring entomologist, beginning perhaps as a lepidopterist, have a good look at the Code for Insect Collecting, then carry a net on all excursions and use it - but use it with care. How otherwise can members be shown specimens of interest at close quarters? But never use what a friend of mine, a household name among entomologists, chooses to call the National Reserve Net - the one which folds and goes in a pocket. Respect all reserves and the efforts of voluntary wardens, - but how much better to find a place for yourself and then tell the owner should something of interest occur there so that he may accept advice on caring for its future.

Remember the anti-collector is usually the anti-butterfly collector - they appear to have no objection to the netting of dull coloured little moths, or flies, or beetles or the many other insect orders - and it is among these less spectacular insects that the real discoveries are still being made. This over emphasis on butterflies prevents me from ever going back to those woods beyond Stanton-St-John, nowadays the fashionable Bernwood. Our part, Hell Coppice, was magic until the oaks there were ring barked in the early 50's and left to die - their place to be taken by conifers. I believe that an uneasy truce exists between the Forestry Commission and those well intentioned Trust members who work hard to maintain the remaining high quality butterfly areas. Dennis Owen, in a well reasoned article in Country Life has proposed that the conifers there should be totally removed in one area - otherwise one is fighting a losing battle as far as the butterflies are concerned.

And what of the keeping of specimens? My few from the early 40's still give me immense pleasure when I look at them at odd times, their capture hadn't the slightest effect on any ecosystem, but they bring alive again the days of which we have spoken this evening. Runge once said in a presidential address -

"We amateurs are primarily interested in insects as insects, irrespective of their economic or social importance. Ours is the search for knowledge for its own sake, coupled with the pleasure that such a pursuit entails. If our investigations are useful in a special way, so much the better. As an aid to such an objective, private collections can play an important part and are, in my opinion, fully justified as a means of getting to know our subject and being able to make observations and deductions, providing of course that it is carried out with discretion and does not jeopardise the existence of any particular species."

May I bring you up-to-date with a quote from the most recent issue of the Entomologists' Record - it is entitled "Just a Short Series" and is written by Dr.F.H.N. Smith of Perranporth, Cornwall -

"As a collector I have found it impossible to explain collecting to non-collectors. They, and perhaps even more so some of my conservationist colleagues, cannot understand it at all, and I suppose collecting is something to do with the genes. Collecting so often starts in youth with the desire to catch a red admiral at the top of a buddleia bush, and no more justification than the excitement of success and the joy of possession is required. This does not last for long, and sophistication demands better reasons, such as the quest for perfection or knowledge and the ambition to fill empty spaces. In my own case it has been a mixture of these, but they have brought a growing respect and sense of responsibility which have made killing irksome. However, deep down, I am a conservationist, because I dread the day when butterflies and moths need to be so protected that there is no longer any choice about collecting them. This is all too possible, and I think the writing is already on the wall as far as many butterfly species are concerned. Moths have not, and may never have, the same popular appeal as butterflies, and the freedom to collect all but a very few of them without arousing much hostility still exists, but it seems to me unwise to take it for granted that this will not change. The time has come for restraint, without which many a common species today may be a rarity tomorrow. Just a Short Series doubtless has wide interpretation, but whatever it may mean I believe that the traditional need for a series of more or less identical specimens, even if bred, can no longer be justified. I suggest that a pair of any species is enough to kill, and a single specimen only, preferably male, of a species known to be local or rare. What will be the reaction to this suggestion I wonder? The Royal Society for Nature Conservation's British Wildlife Appeal slogan 'Tomorrow is too late' is to my mind too apt to be ignored".

As to the dramatis personae of this evening's story, Conrad Runge died in 1962 at the age of 88 and there is an overbrief mention in our Journal of that year; Henry Dolton died in 1968 aged 82 and is given a fuller obituary. Roy Coster, of the fish-head story, true to form ran a fishing tackle shop in Reading for many years and has now retired to Wells Next-the-Sea, Norfolk where he continues to fish and watch birds. Lewis Rudland retired in 1970 down to west Wales, he ceased collecting and his material is in Laidstone Museum, but he still ran his moth trap every night and made meticulous notes. We enjoyed staying with him in 1983 when the talk of clearwings made his eyes shine. He died in February 1986.

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READING FOX WATCH 1986

The red fox, Vulpes vulpes, is the most widespread member of the genus and is the only species to live in mainland Europe. It occurs throughout the northern hemisphere and Australia in habitats ranging from desert and mountain to farmland. Although basically a nocturnal carnivore, it is amazingly adaptable, a fact which has led to its success in our towns and cities. The phenomenon of the "Urban Fox" is comparatively recent with the first invaders colonizing the London suburbs just before the second world war. In the 1950s and early 1960s the numbers increased rapidly and by 1967 they warranted their own scientific article by W.G. Teagle in the "London Naturalist". Since this date foxes have reached the more popular media, with newspaper articles, radio programmes and finally, the ultimate accolade, their own television show! The BBC Natural History Unit brought Bristol's foxes to the attention of millions when their family life below ground was seen by infra red lights and remote control cameras. On eleven late night programmes viewers and scientists were able to study aspects of vulpine behaviour never seen before.

Drs Stephen Harris and David Macdonald have been studying foxes in London, Bristol and Oxford and other large cities over the last fifteen years. The result has been an impressive amount of data on population dynamics, behaviour and habits of foxes in an urban environment. But no one had looked at Reading! It was with this background that the Reading Urban Wildlife Group decided to launch a "Fox Watch" on the unsuspecting citizens of the town. The Group had formed in 1984 and during the following year had been conducting habitat surveys of the whole borough, locating suitable sites for wildlife conservation and listing species of flora and fauna. However, something was needed that could involve everyone and make them aware of the aims and activities of the Group. So the idea of a fox survey was born.

It was, by necessity, a low cost venture. Other surveys had been financed by the RSPCA, MAFF and various universities. But with a small amount of grant aid and relying on volunteer labour we were forced to resort to a low key approach based on the co-operation of local media, schools, libraries etc. A questionnaire was devised to elicit the maximum possible relevant information. A leaflet was written giving brief details of fox biology and the background to the survey. A striking poster was drawn by Nick Richards and all three circulated to every school and library in the town. Likely nocturnal residents were visited, the Police, Ambulance crews, milk roundsmen, railway staff, security workers etc. and posters put up where ever possible. Interviews and subsequent articles were published in the "Reading Chronicle" and "Evening Post". Radio 210 broadcast several pieces for us and the launch was timed for March 1st to coincide with the birth of the cubs. Completed survey forms were returned to the Urban Wildlife Group headquarters at Dinton Pastures and hence to me for compilation and processing.

The data on the forms was entered onto disc using an Amstrad PCW and a database programme written to sort and statistically analyse the information received on twenty key fields. The response to date has been excellent with sightings reaching 300 this week! Compared to Leicester's similar survey which received only 169, this was very good. The returns from schools were rather disappointing in view of the 608 Leicester records from Dr. Harris' systematic survey. However he was able to visit personally, which we were unable to do. It has been established that relying on volunteered information leads to under estimates of population density, compared to a systematic survey (Owen 1985). But, nevertheless,

the findings have been fascinating.

It is impossible to reproduce the map of sightings as it is 1:10000 scale. But several places emerge as fox "hot spots". The University area tops the list with Berkeley Avenue/Coley Park a close second. The Tippings Lane area of Woodley holds the record for number seen at one time - 9 - by a lady who regularly feeds them. A limping fox is a frequent visitor to Calcot and such a disability is useful for identification as without radio tracking it is impossible to know how many records are different sightings of the same animal. Foxes are most frequent in the suburbs, but one family was raised in a garden at the bottom of Castle Hill and they are often seen on the I.D.R. Others have been watched by security staff near the new library and the Abbey ruins. But Reading's premier fox watching site has to be Northcourt Avenue with two earths and nine sightings.

Sorting the information on the basis of habitats:-

44.0 % were seen in gardens
31.0 % on roads
8.0 % in parks
5.0 % on waste ground
4.5 % in school grounds
2.0 % in fields
2.0 % on industrial sites
2.0 % on railways
1.5 % in woods

This is a similar pattern to previous surveys which gave detached and semi-detached housing as the most popular habitat.

Foxes are nocturnal and are emerging for their most active period when fox watchers are in bed! So records are bound to be biased by the habits of the recorders. But the peak times were:

22.00 - 23.00	10.8%
23.00 - 24.00	8.1%
07.00 - 08.00	8.1%
01.00 - 02.00	7.4%

They were seen at all hours, but only 1 sighting occurred between 13.00 and 14.00.

As regards the time of year, obviously the peak number of returns coincided with our launch (March) and subsequent follow-up publicity. So February, March, April and May have most records with May being the month when the cubs emerge and are most obvious to garden owners. Records went back to 1975 and 29 informants said their foxes were "regular visitors". Some fed them each night and one couple arranged for "fox sitters" to keep the handouts going whilst they were away on holiday. Reading's inhabitants appear to love their foxes. Only one or two disapprove of them - with justification as they had lost chickens or a pet rabbit. But people were amazingly tolerant of their irises being dug up, their heathers trampled, dustbins rifled and dogs chased.

Thirty one earths have been located and are being visited for detailed survey. By establishing the number of cubs raised it may be possible to produce a rough estimate of population density. Obviously this is very

difficult as many earths are not watched regularly, and as adult foxes are not marked it is impossible to count individuals. The average fox family consists of dog and vixen and perhaps one other adult non-breeding female. The average litter is 4 - 5, but 25% of vixens fail to produce a litter. (Harris 1986). Also not all earths are used for breeding - this will be checked during the follow up work. But if 75% of located earths produced a litter of 4 cubs with 3 adults, then there could be about 160 foxes in the borough giving a density of about 3-4 per km² or 0.5 families per km². This is almost certainly an under estimate, as I have located several previously unrecorded earths in the Tilehurst area alone. Also records from Caversham, an ideal area of mature suburban detached houses, are rather scarce. But perhaps numbers are less important than status.

The Reading fox certainly seems to be widespread and well liked. The reported eighteen deaths are almost all due to road accidents - evidence of casualties coinciding with major highways into the town. The Basingstoke Road, I.D.R. and Berkeley Avenue are particularly black spots for foxes with peak mortalities occurring at time of maximum dispersal when the cubs are leaving the home territory. Harris (1986) estimates that of every 1000 cubs born, only 390 survive until the following Spring and the average lifespan in the urban area is only 14 - 18 months.

This is only a preliminary report as detailed studies of population, earth site preference and feeding habits are to be carried out as part of my university project. I would like to thank all those people who sent in records, comments and photographs for their interest and to ask for details of any sightings not yet submitted.

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Paula R. Cox. December 1986.

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Conifers of Victorian Reading

by Catherine Olver

The surviving conifers of Victorian Reading are determined by forces social, botanical and historical. The owners of the new polychrome Reading brick villas and semis joined those of the existing scatter of houses in grounds to form a new gardening class. For this group there became available new temperate trees. Selective survival has preserved certain species and tended to kill others.

Garden historians have said that the planters of the new conifers were aping the pinetums of the aristocracy. Famous collections, Chatsworth, Bickton or Bayfordbury, mattered; but less locally than Whiteknights, Bulmershe or Caversham Park. We seldom see young Victorian conifers. Victorians did - the Deodar at 114 Kendrick Road and the Himalayan White Pine at 86 Shinfield Road are in their prime. So are the Grand Firs in Harrogate Road, Caversham or those in Courtenay Drive, Emmer Green, or the Low's Firs near the Sonning Roundabout. All these demonstrate the then newly introduced conifers - they were fashionable, but they were planted because they were vigorous and beautiful, and they offered evergreenness.

In the early nineteenth century, Cedar of Lebanon was already here. Scots Pine became popular through Scott's novels - Weymouth Pine and larch were the forestry trees of estate improvers. The new conifer introductions began with those of Douglas in 1827-30: Douglas Fir, Grand Fir, Ponderosa Pine, Sitka Spruce, Deodar from the Himalayas 1831 joined Picea smithiana 1818 and Pinus wallichiana 1823. Pinus radiata from the Monterey peninsula California came in 1833; and from California via St. Petersburg Sequoia sempervirens 1843. But it was in the 1850's that the great American West coast rush came. Murray for Lawsons of Edinburgh sent Lawson Cypress 1854; Lobb for Veitch Thuja plicata 1853, and in effect Sequoiadendron giganteum Wellingtonia 1853; Jeffrey for the Oregon Association Calocedrus decurrens 1853; Chamaecyparis nootkatensis also arrived in the early 1850's. Thuja orientalis had been introduced from China in 1752 and was known in a variety of forms.

The next stage of the story is told by Mr. W. Coleman, gardener at Eastnor Castle, in his address 'On Conifers' given to the Royal Horticultural Society on October 8 1889 (Journal of the RHS, v.11, 1889 p.320-339). He was 62. He had lived through a gardening revolution.

"All went well until the memorable winter of 1860-61, which followed the wettest and most sunless summer on record. Thousands of fine specimens on that fatal Christmas morning were doomed; their owners in almost every instance blaming the elements, which had left the young growth in an immature state at the end of the season...."

Coleman also blames pot-bound young trees, grafting, and frost pocket siting. A few gentlemen were deterred from planting, but the fever, simply allayed, broke out again, and thanks to the late J.G. Veitch, Fortune, and others, who ransacked Japan, the country was soon filled with magnificent Abies, Piceas, Cryptomerias, Umbrella Pines, and Retinosporas, which no spirited planter could withstand. A fresh race of planters sprang up ... and commenced increasing the already rich arborescent beauty of this country.

With all the new garden forms of Chamaecyparis obtusa and C.pisifera, by the 1870's and 1880's there existed all the conditions for widespread

conifer planting, with species and varieties recommended for every situation. Reading expanded, confidently planting the new conifers. Of those suited to the intensively cultivated areas, few old specimens survive - garden management changes, or the Victorian house has been replaced by new courts or flats. There is a large specimen of one of the dwarf forms of Picea abies deep in the shrubbery in front of the present Music Department in Upper Redlands Road. At the Wilderness Road/Hartsbourne Road corner survives a row of Thuja plicata ZEBRINA. Elderly examples of the first golden Lawson Cypress, LUTEA (far and away the finest golden conifer yet introduced. Anthony Waterers' catalogue 1875) persist at 119 Castle Hill, and at Whiteknights near the present Law department. In the grounds of Coley Park are two Young's Golden Chinese Junipers (without doubt the finest golden conifer of the day. Young's catalogue 1875). A number of Monkey Puzzles survive. The specimens behind Benyon Court, Bath Road, appear to have been lawn trees. In small front gardens, 5 Glebe Road and 13 Eastern Avenue, Burnet Cottage 1871, specimens seem to survive in stasis.

Crowded among other trees, Monkey Puzzles survive in Christchurch Road in the garden of the Milk Marketing Board, and at Yeomanry House, Castle Hill. A few small true firs persist. One is in St. Peters Avenue, Caversham; another is in the grounds of Foxhill, Whiteknights. A good Low's Fir that used to be visible from Kentwood Hill, Tilehurst went with redevelopment, but an excellent specimen survives at 79 Wilderness Road, together with a large Douglas Fir. Thuja orientalis can be seen just beyond the Wistaria gate in the Forbury Gardens, and in Erleigh Road near the corner of Craven Road, and again near the gate of Reading School. Conifer cultivars are the routine furnishing of gardens in recently built parts of Reading. In areas built during the Victorian conifer craze, the gardeners' forms and rarer species have been picked off by time.

When we turn to the tough trees, the pattern is different. The species selected for rapid growth for quick screening along drives or at the edge of sites have survived neglect. Long widowhood or even longer spinster daughter ownership can time-encapsulate gardens with their shelter trees intact to be preserved by the planners now often abetted by the eventual developer. The species that survive in large numbers are Black Pine, Deodar, Wellingtonia, Douglas Fir, Incense Cedar, Coast Redwood. Monterey Cypress and Nootka Cypress can be included here. They often occur with the survivors. Coast Redwoods form the skyline of High Wood, Earley. Isolated specimens occur in Wokingham Road, opposite the end of Mill Lane, in New Road at the corner of Redlands Road, and in the grounds of Bridges Hall. Monterey Cypresses persist from the nineteenth century, but were in fact very much more frequently planted in the 1920's. The species is everywhere dying of Corynium canker, notably at the Redlands Road/Upper Redlands Road corner, and at 157 Wokingham Road. Nootka cypress are even-aged, ageing and often diseased.

Trees survive at 48 Redlands Road, in the garden of 37 Upper Redlands Road, at 10 Coley Avenue, in Downshire Square and 157 Wokingham Road. Lawson Cypress and Western Red Cedar are also frequent constituents of the pinetum, but as both species have continued to be popular, neither is a good indicator species. The elderly Lawson syndrome, multi stemmed and sparsely branched, with dangling sprays of foliage can make younger trees look late nineteenth century when they are starved of light or food. Western Red Cedar normally continues fitter, as at 41 Eastern Avenue. Magnificent Atlas Cedar and Monterey Pine grow above St. Peters Hill Caversham. Atlas Cedars were to become very much more popular later, and I suspect have tended to be felled in all but the largest gardens.

The best indicator trees seem to be combinations of Deodar, Black Pine, Incense Cedar and Wellingtonia. Along the Bath Road, we find: at Janson Court, Deodar, Black Pine, Wellingtonia, Incense Cedar; at Benyon Court, Deodar, Wellingtonia, Incense Cedar; at Presentation College, Incense Cedar, Wellingtonia and Douglas Fir. In the Bath Road hinterland: Parkside Road has concentrations of Douglas Fir, Wellingtonia and old Lawson Cypress; in Southcote Road, there is Black Pine, Deodar, Western Red cedar, Chamaecyparis pisifera v. plumosa, Douglas Fir and Lawson Cypress. A row of Deodars persists along the far boundary of Bexley Court. At West Fryerne in Tilehurst Road, there is a Himalayan White Pine, and some good Corsican Pines. Incense Cedars shuttlecock up in Addington Road, Morgan Road, and Erleigh Road. The Corsican Pine at the crest of Redlands Road is a landmark. Notable Wellingtonias survive at 4 Vicarage Road, Christchurch, at Beacon Court in Tilehurst Road, along the Bath Road at Harrow Court and at The Firs, at 25 Whiteknights Road, and 112 Crescent Road, and deep behind 157 Wokingham Road. The conifers there include Monkey Puzzle, Deodar, Monterey Cypress, Nootka Cypress, old Lawson Cypresses and Black Pines. Veitch launched Wellingtonia in 1853, the year following the burial of the Great Duke. He hoped it would prove the Deodar of the 1850's. Of Deodar in 1850 Knight and Perry in their Synopsis had written:

"It is, therefore, to be hoped that our large landed proprietors may be induced to recognise the beauty and value of this, perhaps, best of trees; and that the day is not far distant when our hill sides will be covered with it and other exotic conifers, the great beauty of which will produce a most pleasing and an important change in the landscape scenery of Great Britain."

The Deodar more than any other single species transformed the landscape of Reading. Deodars frame the view of the gasworks from St. Peters Hill Caversham; they adorn Coley Avenue, at Epsom Court and at no.39; they shade 5 Bath Road and 29 Eastern Avenue. At 112 Crescent Road the Deodar was retained when the garden wall was moved back to make the corner safe. The Deodar at 67 Erleigh Road on the corner of De Beauvoir Road is round topped and displays its foliage with an exceptionally continuous canopy.

Looking at Deodars in their spring growth throughout the older areas of Reading we can understand the enthusiasm and excitement of the generation for whom they were new, and by learning to recognize the species new then but now lumped in our minds as Victorian conifers, we can share with the inhabitants of Reading 100 years ago their pleasure in their new conifers.

MY FIRST YEAR

by Brian Reed, Hon Field Excursion Secretary

Will there be enough outings? Will there be too many? Will the members turn up? Will the leader stand alone? In the end the number of possible outings increases until there are just too many and the membership remains unpredictable in attendance.

Pride of place must go to the coach trip to Charterhouse. We arrived to the pitter-patter of Mendip sunshine which was soon replaced by the real thing. There was much to see at the centre, but for the Cheddar Pink we had to visit the Gorge itself. It was a little worrying to see nearly fifty members and friends striding out from the top of the Gorge with no pavements and lots of cars. But we did find the Cheddar Pink and a few extras such as Shining Cranesbill, Purple Toadflax, Basil Thyme and Ivy Broomrape.

This year also saw my first attendance at the Barbecue and Nothing evening. The event was held at California Country Park and was a great success (even though we didn't have a guide for our walk-about.) Dr. and Mrs. Bowen laid on a splendid feast of trout and vegetables followed by strawberries and yoghurt. There were three nothing lamps set up which gave us a marvellous total of 122 species for the night.

Rightly or wrongly I felt obliged to attend most of the outings and it has always been a pleasure to meet whoever turned up on the day except for the trip to Christmas Common! It was the wettest outing I've known! Despite the weather some stalwarts went on the trip - and they saw the Chiltern Gentians. (Brenda and I went looking for bathrooms, it seemed more appropriate!)

For those contemplating taking office with the "Nats", it gets easier after the first year, & the second year's programme is presenting fewer problems, mainly due to the surplus of suggestions from the first!

THE FISHLOCK PRIZE

This prize is awarded annually to a young naturalist who has shown much promise. Last year, however, it was not awarded so it has been decided that this year two awards should be made.

Robert Briers and Jonathan Fletcher will each be awarded a book prize to the value of £10.00 at the Members' Evening on March 19th 1987.

Robert Briers began his interest in natural history at a very early age of four years when he kept a small tortoiseshell caterpillar until it hatched! He has since been very keen on keeping caterpillars of both butterflies and moths. A keen member of WATCH since its inception, he has worked well also in the Reading Urban Wildlife group and is now becoming interested in fresh water life and hopes to become a fresh water biologist.

Jonathan Fletcher also started from the early age of ten showing an interest in birds - mallards on the River Thames. He belongs to the Youth Section of R.S.P.B. and in 1985 he was chosen as the Young Ornithologist of the Year in his age group. He has kept a detailed diary of birds he has seen during the year.

They both highly deserve their prizes and we wish them well for the future. Well done!

The Recorder's Report for Botany 1986

B. M. Newman

The nomenclature and order used in this report are those of the "Flora of the British Isles" by Clapham, Tutin & Warburg, 1962. An alien taxon is indicated by an asterisk (*). The English names are from "English Names of Wild Flowers" second edition 1986, the recommended list of the Botanical Society of the British Isles.

The Recorder thanks members for the many interesting records received which include some not previously recorded by the Society. A selection of these records, nearly all from within a twenty mile radius of Reading, is listed below. In addition, several species of orchid have been seen in bloom this year, mainly in nature reserves. They include Epipactis phyllanthes G. E. Sm. (Green-flowered Helleborine), Epipogium aphyllum Sw. (Ghost Orchid), Neottia nidus-avis (L.) Rich. (Bird's-nest Orchid) and Orchis purpurea Huds. (Lady Orchid).

List of Members' Records for 1986

SELAGINELLACEAE

*Selaginella kraussiana (Kunze) A. Br. Krauss's Clubmoss
Still a persistent weed in glasshouses, Hampstead Norris, Berks., (HJMB).

EQUISETACEAE

Equisetum sylvaticum L. Wood Horsetail
More than 600 plants in a water meadow and surrounding woodland, Silchester Soke, 28.6.86, (WGH).

POLYPODIACEAE

Asplenium trichomanes L. Maidenhair Spleenwort
Two plants on the Roman wall, Silchester, 20.6.86, (WGH).

Asplenium ruta-muraria L. Wall-rue
Many plants on the wall of Ufton churchyard; ten plants on the Roman wall, Silchester, 20.6.86, (WGH).

Thelypteris palustris Schott Marsh Fern
Locally frequent in fen, Greywell, N. Hants, (HJMB)

CUPRESSACEAE

Juniperus communis L. Juniper
Hartslock Reserve, 8.6.86, (AB).

RANUNCULACEAE

Helleborus foetidus L. Stinking Hellebore
More than 30 plants near Streatley Hill, 28.4.86, (WGH).

Helleborus viridis L. Green Hellebore
More than 60 plants in a wood near Hurdle Shaw, 28.4.86, (WGH).

*Consolida ambigua (L.) P. W. Ball & Heywood Larkspur
On a tip at Pingewood, Berks., (HJMB).

Ranunculus sardous Crantz Hairy Buttercup
More than 40 plants in turfed area of gardens for residential complex for the elderly, on Berkshire side of Silchester Road, Pamber Heath, 11.7.86, (WGH).

abundantly. Together with these were some day-flying moths, foremost among which was the cistus forester a little golden-green jewel of a moth, very local but plentiful where it does occur. Brian was soon busying himself in the hot sunshine making up his series of green hairstreaks and dukes of Burgundy etc - the heat was not going to get him down. He was like the small boy who was doing himself well at a school treat. His teacher saw him struggling with a large sized doughnut and looking decidedly green "Aren't you feeling well Jimmie?". "Not very Miss, but I'll feel a lot worse than this afore I gives in". Brian was far from giving in and made full use of his opportunities. As for me I was content to proceed in a more leisurely fashion and act the part of the looker on. Dramas of insect life were being played out all around me and it was hard to decide on which to concentrate. I cannot say that I made any original observations but verified several that had been recorded by others".

Runge didn't mention a happening that occurred at the end of the outward journey. We were almost there and the Ariel bumped its way along the rutted Ridgeway and into the Castle entrance. I stopped and waited for my passenger to get off the tiny pillion seat. Apart from the sound of the wind through the grasses I heard nothing and turned round. He wasn't there! He had been catapulted, quite safely, down into the soft, grassy depths of Letcombe's ditch!

On 22nd June I cycled back to that wood near Oxford, leaving Reading at 6 a.m., breakfasting in a railway carriage coffee stall at Wheatley and down into the wood by 9 o'clock. There were marsh fritillaries and foresters and, best of all, plenty of brown hairstreak larvae, the first I had ever found, and which I must have missed on that first visit on 18th May when they would have been pretty small. Ruddy had always said brown hairstreaks preferred the smallest of bushes on which to lay their eggs, - as usual he was right. I knew this place would be good and, petrol now allowing, took my mother there on 5th July for a spin in the country - we arrived about 3 o'clock. There were white admirals and silver-washed fritillaries flying everywhere and, near the roadside, a small slow-flying white butterfly proved to be my first wood white. My mother said that she would enjoy the sun where we had parked the motor bike, so I went into the wood for the first time. For some reason I kept going down that damp clayey path through the trees and then came out into a large field where cows were grazing. Across the centre of the field stretched an enormous blackthorn hedge with, at intervals, an odd oak or two breaking the line. Along the top of that tall hedge were active little groups of small, dark butterflies-black hairstreaks!! I had to call at Mr Runge's on my way home and tell him the news - also to leave with him 2 live female black hairstreaks.

He now had to see this place for himself and 2 weeks later on 20th July Roy Coster, a former member of this Society, and I cycled up to Caversham and at 6 a.m. the three of us set off. Runge at that time was 67 and did the journey as well as his very much younger companions - again we were in the wood by 9 o'clock.

I left the others to see to their bikes and went straight out to that hedge beyond the wood. As I walked towards one of those solitary oaks a white admiral, or so I thought, flew past me and then, turning round, came back and flew up on to an oak spray a few feet above my head. The underside eye spots brought back vividly the memory of the patch of road menders' gravel where Runge and Rudland had seen that purple emperor in 1937 - never did hand shake more than now! When I rushed back to our bikes the others were still fitting up their nets and could hardly believe my story until shown my first iris. Another specimen was glimpsed during the day but Runge was satisfied at seeing his first black hairstreaks, though now far past their best.

Purple emperors have long been known to be attracted to the scent of all manner of decaying animal remains - I well remember seeing a male iris busily feeding off a smelly squirrel on the keeper's gibbet in Pamber - and Roy Coster thought we might try a modification of the technique. Roy was, at that time, an errand boy for the firm of Eighteens, fishmongers in West Street, and had access to an unlimited supply of fish heads. So it came to be that the three of us cycled again to Hell Coppice, on 3rd August, 1941, but accompanied this time by a disgusting odour from one of the bicycles. At least we proved that fish heads were ineffective, even the flies seemed unimpressed. We left, reluctantly, about 6 o'clock and going down that straight road outside the wood I saw a purple emperor sitting at the roadside. Calling to the others to stop I went to investigate and remember a car passing me as I went back. Strangely in spite of that car, the purple emperor was still there, and probably had been for some time as it was dead. More to the point, the car, which had no effect on the butterfly, had much more on Mr. Runge's back wheel as his cycle lay at the roadside.

As I recall subsequent events, the apologetic driver ferried Conrad to Oxford station, bike and all, and Roy and I were detailed to explain matters to Mrs. Runge should we have reached Caversham first.

Soon after this expedition the war really put paid to our activities, but Runge shall have the last words - they refer to a few days of my embarkation leave and come from his Entomological Retrospect, 1945 -

"As Brian Baker was very keen to see our largest butterfly, the swallowtail, in its native haunts, a visit was made from 5th to 7th June to Wicken Fen, a well known locality about 9 miles from Cambridge. The journey was made by motor cycle and I could say much about this ride but that, as Kipling would say, would be another story. Unfortunately the weather was cold and showery and we were doubtful if we should be successful in our quest. When we arrived on the Fen it was drizzling with rain and though we did kick up one or two typical fen moths, such as the silver hook and silver barred, no swallowtails were seen. Then after lunch, taken under a stunted blackthorn, the sun made feeble attempts to shine and during this period two or three swallowtails, rather the worse for wear, were seen. We had previously unsuccessfully searched many plants of milk parsley, the food plant of the swallowtail, but at last at one spot I was pleased to find an egg. Diligent search resulted in about a dozen each. Barnes, the bailiff whom we met shortly afterwards, told us that in May the butterfly was abundant all over the Fen, even visiting the gardens in Wicken Village. In a normal season we should have been in time to see it at its best. However, Baker had seen this fine insect on the wing and found the eggs so the journey was considered to have been well worth while"

When Runge wrote "I could say much about this ride" he was remembering the puncture we had on the return journey, somewhere near Letchworth. As we pushed the bike along the road we saw a group of Auxillary Fire Service men idling the time on the grass outside their wartime station. They offered help which we gratefully accepted, and before long the tyre was vulcanised, pressurised and the wheel put back on. On that homeward journey Runge was unusually quiet, except for periodic 'oohs' and the occasional grunt. When asked if in trouble I could get no satisfactory reply. We arrived back in Caversham gone midnight and, as Mrs Runge hovered around he thanked me and said goodnight.

Later that week, as I took my farewells of them both, Mrs. Runge confided "oh, he was in a state - blue in places".

Why ever didn't I think of letting a little of the pressure out? - the

moral here is "confuse not a motorcycle with a fire engine or an ill wind will fill your tyres"

Whilst I was abroad Runge kept me well informed of things back home with the Society. The following words show his delight on a return in 1945 to nightwork in Pamber Forest. He wrote lyrically - "July was notable in-as-much that after six years it was possible to go sugaring once more. Pamber Forest was chosen as the best place and three excursions we made with fair success. It was delightful to be in the Forest at night once more, wandering through verduous glooms and winding, mossy ways listening to the brown owl winding his mellow horn, and the churring of the night jar. As night came on we would visit our treacle patches where the light of the torch would be reflected from pairs of topaz-coloured eyes shining like tiny headlamps".

In conclusion, I realise that much of the foregoing refers to a carefree, few years - to a time when to be seen with a butterfly net was thought to be eccentric rather than anti-conservationist. If told today that he could no longer swish a net with impunity in Pamber Forest, old Holland would turn in his grave. He lived in, and I too have recounted, a time free of restrictions, when the kite net was as much a part of our paraphernalia as a stout pair of shoes. Therefore let me say to any aspiring entomologist, beginning perhaps as a lepidopterist, have a good look at the Code for Insect Collecting, then carry a net on all excursions and use it - but use it with care. How otherwise can members be shown specimens of interest at close quarters? But never use what a friend of mine, a household name among entomologists, chooses to call the National Reserve Net - the one which folds and goes in a pocket. Respect all reserves and the efforts of voluntary wardens, - but how much better to find a place for yourself and then tell the owner should something of interest occur there so that he may accept advice on caring for its future.

Remember the anti-collector is usually the anti-butterfly collector - they appear to have no objection to the netting of dull coloured little moths, or flies, or beetles or the many other insect orders - and it is among these less spectacular insects that the real discoveries are still being made. This over emphasis on butterflies prevents me from ever going back to those woods beyond Stanton-St-John, nowadays the fashionable Bernwood. Our part, Hell Coppice, was magic until the oaks there were ring barked in the early 50's and left to die - their place to be taken by conifers. I believe that an uneasy truce exists between the Forestry Commission and those well intentioned Trust members who work hard to maintain the remaining high quality butterfly areas. Dennis Owen, in a well reasoned article in Country Life has proposed that the conifers there should be totally removed in one area - otherwise one is fighting a losing battle as far as the butterflies are concerned.

And what of the keeping of specimens? My few from the early 40's still give me immense pleasure when I look at them at odd times, their capture hadn't the slightest effect on any ecosystem, but they bring alive again the days of which we have spoken this evening. Runge once said in a presidential address -

"We amateurs are primarily interested in insects as insects, irrespective of their economic or social importance. Ours is the search for knowledge for its own sake, coupled with the pleasure that such a pursuit entails. If our investigations are useful in a special way, so much the better. As an aid to such an objective, private collections can play an important part and are, in my opinion, fully justified as a means of getting to know our subject and being able to make observations and deductions, providing of course that it is carried out with discretion and does not jeopardise the existence of any particular species."

May I bring you up-to-date with a quote from the most recent issue of the Entomologists' Record - it is entitled "Just a Short Series" and is written by Dr.F.H.N. Smith of Perranporth, Cornwall -

"As a collector I have found it impossible to explain collecting to non-collectors. They, and perhaps even more so some of my conservationist colleagues, cannot understand it at all, and I suppose collecting is something to do with the genes. Collecting so often starts in youth with the desire to catch a red admiral at the top of a buddleia bush, and no more justification than the excitement of success and the joy of possession is required. This does not last for long, and sophistication demands better reasons, such as the quest for perfection or knowledge and the ambition to fill empty spaces. In my own case it has been a mixture of these, but they have brought a growing respect and sense of responsibility which have made killing irksome. However, deep down, I am a conservationist, because I dread the day when butterflies and moths need to be so protected that there is no longer any choice about collecting them. This is all too possible, and I think the writing is already on the wall as far as many butterfly species are concerned. Moths have not, and may never have, the same popular appeal as butterflies, and the freedom to collect all but a very few of them without arousing much hostility still exists, but it seems to me unwise to take it for granted that this will not change. The time has come for restraint, without which many a common species today may be a rarity tomorrow. Just a Short Series doubtless has wide interpretation, but whatever it may mean I believe that the traditional need for a series of more or less identical specimens, even if bred, can no longer be justified. I suggest that a pair of any species is enough to kill, and a single specimen only, preferably male, of a species known to be local or rare. What will be the reaction to this suggestion I wonder? The Royal Society for Nature Conservation's British Wildlife Appeal slogan 'Tomorrow is too late' is to my mind too apt to be ignored".

As to the dramatis personae of this evening's story, Conrad Runge died in 1962 at the age of 88 and there is an overbrief mention in our Journal of that year; Henry Dolton died in 1968 aged 82 and is given a fuller obituary. Roy Coster, of the fish-head story, true to form ran a fishing tackle shop in Reading for many years and has now retired to Wells Next-the-Sea, Norfolk where he continues to fish and watch birds. Lewis Rudland retired in 1970 down to west Wales, he ceased collecting and his material is in Laidstone Museum, but he still ran his moth trap every night and made meticulous notes. We enjoyed staying with him in 1983 when the talk of clearwings made his eyes shine. He died in February 1986.

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READING FOX WATCH 1986

The red fox, Vulpes vulpes, is the most widespread member of the genus and is the only species to live in mainland Europe. It occurs throughout the northern hemisphere and Australia in habitats ranging from desert and mountain to farmland. Although basically a nocturnal carnivore, it is amazingly adaptable, a fact which has led to its success in our towns and cities. The phenomenon of the "Urban Fox" is comparatively recent with the first invaders colonizing the London suburbs just before the second world war. In the 1950s and early 1960s the numbers increased rapidly and by 1967 they warranted their own scientific article by W.G. Teagle in the "London Naturalist". Since this date foxes have reached the more popular media, with newspaper articles, radio programmes and finally, the ultimate accolade, their own television show! The BBC Natural History Unit brought Bristol's foxes to the attention of millions when their family life below ground was seen by infra red lights and remote control cameras. On eleven late night programmes viewers and scientists were able to study aspects of vulpine behaviour never seen before.

Drs Stephen Harris and David Macdonald have been studying foxes in London, Bristol and Oxford and other large cities over the last fifteen years. The result has been an impressive amount of data on population dynamics, behaviour and habits of foxes in an urban environment. But no one had looked at Reading! It was with this background that the Reading Urban Wildlife Group decided to launch a "Fox Watch" on the unsuspecting citizens of the town. The Group had formed in 1984 and during the following year had been conducting habitat surveys of the whole borough, locating suitable sites for wildlife conservation and listing species of flora and fauna. However, something was needed that could involve everyone and make them aware of the aims and activities of the Group. So the idea of a fox survey was born.

It was, by necessity, a low cost venture. Other surveys had been financed by the RSPCA, RAFF and various universities. But with a small amount of grant aid and relying on volunteer labour we were forced to resort to a low key approach based on the co-operation of local media, schools, libraries etc. A questionnaire was devised to elicit the maximum possible relevant information. A leaflet was written giving brief details of fox biology and the background to the survey. A striking poster was drawn by Nick Richards and all three circulated to every school and library in the town. Likely nocturnal residents were visited, the Police, Ambulance crews, milk roundsmen, railway staff, security workers etc. and posters put up where ever possible. Interviews and subsequent articles were published in the "Reading Chronicle" and "Evening Post". Radio 210 broadcast several pieces for us and the launch was timed for March 1st to coincide with the birth of the cubs. Completed survey forms were returned to the Urban Wildlife Group headquarters at Dinton Pastures and hence to me for compilation and processing.

The data on the forms was entered onto disc using an Amstrad PCW and a database programme written to sort and statistically analyse the information received on twenty key fields. The response to date has been excellent with sightings reaching 300 this week! Compared to Leicester's similar survey which received only 169, this was very good. The returns from schools were rather disappointing in view of the 608 Leicester records from Dr. Harris' systematic survey. However he was able to visit personally, which we were unable to do. It has been established that relying on volunteered information leads to under estimates of population density, compared to a systematic survey (Owen 1985). But, nevertheless,

the findings have been fascinating.

It is impossible to reproduce the map of sightings as it is 1:10000 scale. But several places emerge as fox "hot spots". The University area tops the list with Berkeley Avenue/Coley Park a close second. The Tippings Lane area of Woodley holds the record for number seen at one time - 9 - by a lady who regularly feeds them. A limping fox is a frequent visitor to Calcot and such a disability is useful for identification as without radio tracking it is impossible to know how many records are different sightings of the same animal. Foxes are most frequent in the suburbs, but one family was raised in a garden at the bottom of Castle Hill and they are often seen on the I.D.R. Others have been watched by security staff near the new library and the Abbey ruins. But Reading's premier fox watching site has to be Northcourt Avenue with two earths and nine sightings.

Sorting the information on the basis of habitats:-

44.0	% were seen in gardens
31.0	% on roads
8.0	% in parks
5.0	% on waste ground
4.5	% in school grounds
2.0	% in fields
2.0	% on industrial sites
2.0	% on railways
1.5	% in woods

This is a similar pattern to previous surveys which gave detached and semi-detached housing as the most popular habitat.

Foxes are nocturnal and are emerging for their most active period when fox watchers are in bed! So records are bound to be biased by the habits of the recorders. But the peak times were:

22.00 - 23.00	10.8%
23.00 - 24.00	8.1%
07.00 - 08.00	8.1%
01.00 - 02.00	7.4%

They were seen at all hours, but only 1 sighting occurred between 13.00 and 14.00.

As regards the time of year, obviously the peak number of returns coincided with our launch (March) and subsequent follow-up publicity. So February, March, April and May have most records with May being the month when the cubs emerge and are most obvious to garden owners. Records went back to 1975 and 29 informants said their foxes were "regular visitors". Some fed them each night and one couple arranged for "fox sitters" to keep the handouts going whilst they were away on holiday. Reading's inhabitants appear to love their foxes. Only one or two disapprove of them - with justification as they had lost chickens or a pet rabbit. But people were amazingly tolerant of their irises being dug up, their heathers trampled, dustbins rifled and dogs chased.

Thirty one earths have been located and are being visited for detailed survey. By establishing the number of cubs raised it may be possible to produce a rough estimate of population density. Obviously this is very

difficult as many earths are not watched regularly, and as adult foxes are not marked it is impossible to count individuals. The average fox family consists of dog and vixen and perhaps one other adult non-breeding female. The average litter is 4 - 5, but 25% of vixens fail to produce a litter. (Harris 1986). Also not all earths are used for breeding - this will be checked during the follow up work. But if 75% of located earths produced a litter of 4 cubs with 3 adults, then there could be about 160 foxes in the borough giving a density of about 3-4 per km² or 0.5 families per km². This is almost certainly an under estimate, as I have located several previously unrecorded earths in the Tilehurst area alone. Also records from Caversham, an ideal area of mature suburban detached houses, are rather scarce. But perhaps numbers are less important than status.

The Reading fox certainly seems to be widespread and well liked. The reported eighteen deaths are almost all due to road accidents - evidence of casualties coinciding with major highways into the town. The Basingstoke Road, I.D.R. and Berkeley Avenue are particularly black spots for foxes with peak mortalities occurring at time of maximum dispersal when the cubs are leaving the home territory. Harris (1986) estimates that of every 1000 cubs born, only 390 survive until the following Spring and the average lifespan in the urban area is only 14 - 18 months.

This is only a preliminary report as detailed studies of population, earth site preference and feeding habits are to be carried out as part of my university project. I would like to thank all those people who sent in records, comments and photographs for their interest and to ask for details of any sightings not yet submitted.

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Paula R. Cox. December 1986.

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Conifers of Victorian Reading

by Catherine Olver

The surviving conifers of Victorian Reading are determined by forces social, botanical and historical. The owners of the new polychrome Reading brick villas and semis joined those of the existing scatter of houses in grounds to form a new gardening class. For this group there became available new temperate trees. Selective survival has preserved certain species and tended to kill others.

Garden historians have said that the planters of the new conifers were aping the pinetums of the aristocracy. Famous collections, Chatsworth, Bickton or Bayfordbury, mattered; but less locally than Whiteknights, Bulmershe or Caversham Park. We seldom see young Victorian conifers. Victorians did - the Deodar at 114 Kendrick Road and the Himalayan White Pine at 86 Shinfield Road are in their prime. So are the Grand Firs in Harrogate Road, Caversham or those in Courtenay Drive, Emmer Green, or the Low's Firs near the Sonning Roundabout. All these demonstrate the then newly introduced conifers - they were fashionable, but they were planted because they were vigorous and beautiful, and they offered evergreenness.

In the early nineteenth century, Cedar of Lebanon was already here. Scots Pine became popular through Scott's novels - Weymouth Pine and larch were the forestry trees of estate improvers. The new conifer introductions began with those of Douglas in 1827-30: Douglas Fir, Grand Fir, Ponderosa Pine, Sitka Spruce, Deodar from the Himalayas 1831 joined Picea smithiana 1818 and Pinus wallichiana 1823. Pinus radiata from the Monterey peninsula California came in 1833; and from California via St. Petersburg Sequoia sempervirens 1843. But it was in the 1850's that the great American West coast rush came. Murray for Lawsons of Edinburgh sent Lawson Cypress 1854; Lobb for Veitch Thuja plicata 1853, and in effect Sequoiadendron giganteum Wellingtonia 1853; Jeffrey for the Oregon Association Calocedrus decurrens 1853; Chamaecyparis nootkatensis also arrived in the early 1850's. Thuja orientalis had been introduced from China in 1752 and was known in a variety of forms.

The next stage of the story is told by Mr. W. Coleman, gardener at Eastnor Castle, in his address 'On Conifers' given to the Royal Horticultural Society on October 8 1889 (Journal of the RHS, v.11, 1889 p.320-339). He was 62. He had lived through a gardening revolution.

"All went well until the memorable winter of 1860-61, which followed the wettest and most sunless summer on record. Thousands of fine specimens on that fatal Christmas morning were doomed; their owners in almost every instance blaming the elements, which had left the young growth in an immature state at the end of the season...."

Coleman also blames pot-bound young trees, grafting, and frost pocket siting. A few gentlemen were deterred from planting, but the fever, simply allayed, broke out again, and thanks to the late J.G. Veitch, Fortune, and others, who ransacked Japan, the country was soon filled with magnificent Abies, Piceas, Cryptomerias, Umbrella Pines, and Retinosporas, which no spirited planter could withstand. A fresh race of planters sprang up ... and commenced increasing the already rich arborescent beauty of this country.

With all the new garden forms of Chamaecyparis obtusa and C.pisifera, by the 1870's and 1880's there existed all the conditions for widespread

conifer planting, with species and varieties recommended for every situation. Reading expanded, confidently planting the new conifers. Of those suited to the intensively cultivated areas, few old specimens survive - garden management changes, or the Victorian house has been replaced by new courts or flats. There is a large specimen of one of the dwarf forms of Picea abies deep in the shrubbery in front of the present Music Department in Upper Redlands Road. At the Wilderness Road/Hartsbourne Road corner survives a row of Thuja plicata ZEBRINA. Elderly examples of the first golden Lawson Cypress, LUTEA (far and away the finest golden conifer yet introduced. Anthony Waterers' catalogue 1875) persist at 119 Castle Hill, and at Whiteknights near the present Law department. In the grounds of Coley Park are two Young's Golden Chinese Junipers (without doubt the finest golden conifer of the day. Young's catalogue 1875). A number of Monkey Puzzles survive. The specimens behind Benyon Court, Bath Road, appear to have been lawn trees. In small front gardens, 5 Glebe Road and 13 Eastern Avenue, Burnet Cottage 1871, specimens seem to survive in stasis.

Crowded among other trees, Monkey Puzzles survive in Christchurch Road in the garden of the Milk Marketing Board, and at Yeomanry House, Castle Hill. A few small true firs persist. One is in St. Peters Avenue, Caversham; another is in the grounds of Foxhill, Whiteknights. A good Low's Fir that used to be visible from Kentwood Hill, Tilehurst went with redevelopment, but an excellent specimen survives at 79 Wilderness Road, together with a large Douglas Fir. Thuja orientalis can be seen just beyond the Wistaria gate in the Forbury Gardens, and in Erleigh Road near the corner of Craven Road, and again near the gate of Reading School. Conifer cultivars are the routine furnishing of gardens in recently built parts of Reading. In areas built during the Victorian conifer craze, the gardeners' forms and rarer species have been picked off by time.

When we turn to the tough trees, the pattern is different. The species selected for rapid growth for quick screening along drives or at the edge of sites have survived neglect. Long widowhood or even longer spinster daughter ownership can time-encapsulate gardens with their shelter trees intact to be preserved by the planners now often abetted by the eventual developer. The species that survive in large numbers are Black Pine, Deodar, Wellingtonia, Douglas Fir, Incense Cedar, Coast Redwood. Monterey Cypress and Nootka Cypress can be included here. They often occur with the survivors. Coast Redwoods form the skyline of High Wood, Earley. Isolated specimens occur in Wokingham Road, opposite the end of Mill Lane, in New Road at the corner of Redlands Road, and in the grounds of Bridges Hall. Monterey Cypresses persist from the nineteenth century, but were in fact very much more frequently planted in the 1920's. The species is everywhere dying of Corynium canker, notably at the Redlands Road/Upper Redlands Road corner, and at 157 Wokingham Road. Nootka cypress are even-aged, ageing and often diseased.

Trees survive at 48 Redlands Road, in the garden of 37 Upper Redlands Road, at 10 Coley Avenue, in Downshire Square and 157 Wokingham Road. Lawson Cypress and Western Red Cedar are also frequent constituents of the pinetum, but as both species have continued to be popular, neither is a good indicator species. The elderly Lawson syndrome, multi stemmed and sparsely branched, with dangling sprays of foliage can make younger trees look late nineteenth century when they are starved of light or food. Western Red Cedar normally continues fitter, as at 41 Eastern Avenue. Magnificent Atlas Cedar and Monterey Pine grow above St. Peters Hill Caversham. Atlas Cedars were to become very much more popular later, and I suspect have tended to be felled in all but the largest gardens.

The best indicator trees seem to be combinations of Deodar, Black Pine, Incense Cedar and Wellingtonia. Along the Bath Road, we find: at Janson Court, Deodar, Black Pine, Wellingtonia, Incense Cedar; at Benyon Court, Deodar, Wellingtonia, Incense Cedar; at Presentation College, Incense Cedar, Wellingtonia and Douglas Fir. In the Bath Road hinterland: Parkside Road has concentrations of Douglas Fir, Wellingtonia and old Lawson Cypress; in Southcote Road, there is Black Pine, Deodar, Western Red cedar, *Chamaecyparis pisifera* v. *plumosa*, Douglas Fir and Lawson Cypress. A row of Deodars persists along the far boundary of Bexley Court. At West Fryerne in Tilehurst Road, there is a Himalayan White Pine, and some good Corsican Pines. Incense Cedars shuttlecock up in Addington Road, Morgan Road, and Erleigh Road. The Corsican Pine at the crest of Redlands Road is a landmark. Notable Wellingtonias survive at 4 Vicarage Road, Christchurch, at Beacon Court in Tilehurst Road, along the Bath Road at Harrow Court and at The Firs, at 25 Whiteknights Road, and 112 Crescent Road, and deep behind 157 Wokingham Road. The conifers there include Monkey Puzzle, Deodar, Monterey Cypress, Nootka Cypress, old Lawson Cypresses and Black Pines. Veitch launched Wellingtonia in 1853, the year following the burial of the Great Duke. He hoped it would prove the Deodar of the 1850's. Of Deodar in 1850 Knight and Perry in their Synopsis had written:

"It is, therefore, to be hoped that our large landed proprietors may be induced to recognise the beauty and value of this, perhaps, best of trees; and that the day is not far distant when our hill sides will be covered with it and other exotic conifers, the great beauty of which will produce a most pleasing and an important change in the landscape scenery of Great Britain."

The Deodar more than any other single species transformed the landscape of Reading. Deodars frame the view of the gasworks from St. Peters Hill Caversham; they adorn Coley Avenue, at Epsom Court and at no.39; they shade 5 Bath Road and 29 Eastern Avenue. At 112 Crescent Road the Deodar was retained when the garden wall was moved back to make the corner safe. The Deodar at 67 Erleigh Road on the corner of De Beauvoir Road is round topped and displays its foliage with an exceptionally continuous canopy.

Looking at Deodars in their spring growth throughout the older areas of Reading we can understand the enthusiasm and excitement of the generation for whom they were new, and by learning to recognize the species new then but now lumped in our minds as Victorian conifers, we can share with the inhabitants of Reading 100 years ago their pleasure in their new conifers.

MY FIRST YEAR

by Brian Reed, Hon Field Excursion Secretary

Will there be enough outings? Will there be too many? Will the members turn up? Will the leader stand alone? In the end the number of possible outings increases until there are just too many and the membership remains unpredictable in attendance.

Pride of place must go to the coach trip to Charterhouse. We arrived to the pitter-patter of Mendip sunshine which was soon replaced by the real thing. There was much to see at the centre, but for the Cheddar Pink we had to visit the Gorge itself. It was a little worrying to see nearly fifty members and friends striding out from the top of the Gorge with no pavements and lots of cars. But we did find the Cheddar Pink and a few extras such as Shining Cranesbill, Purple Toadflax, Basil Thyme and Ivy Broomrape.

This year also saw my first attendance at the Barbecue and Nothing evening. The event was held at California Country Park and was a great success (even though we didn't have a guide for our walk-about.) Dr. and Mrs. Bowen laid on a splendid feast of trout and vegetables followed by strawberries and yoghurt. There were three nothing lamps set up which gave us a marvellous total of 122 species for the night.

Rightly or wrongly I felt obliged to attend most of the outings and it has always been a pleasure to meet whoever turned up on the day except for the trip to Christmas Common! It was the wettest outing I've known! Despite the weather some stalwarts went on the trip - and they saw the Chiltern Gentians. (Brenda and I went looking for bathrooms, it seemed more appropriate!)

For those contemplating taking office with the "Nats", it gets easier after the first year, & the second year's programme is presenting fewer problems, mainly due to the surplus of suggestions from the first!

THE FISHLOCK PRIZE

This prize is awarded annually to a young naturalist who has shown much promise. Last year, however, it was not awarded so it has been decided that this year two awards should be made.

Robert Briers and Jonathan Fletcher will each be awarded a book prize to the value of £10.00 at the Members' Evening on March 19th 1987.

Robert Briers began his interest in natural history at a very early age of four years when he kept a small tortoiseshell caterpillar until it hatched! He has since been very keen on keeping caterpillars of both butterflies and moths. A keen member of WATCH since its inception, he has worked well also in the Reading Urban Wildlife group and is now becoming interested in fresh water life and hopes to become a fresh water biologist.

Jonathan Fletcher also started from the early age of ten showing an interest in birds - mallards on the River Thames. He belongs to the Youth Section of R.S.P.B. and in 1985 he was chosen as the Young Ornithologist of the Year in his age group. He has kept a detailed diary of birds he has seen during the year.

They both highly deserve their prizes and we wish them well for the future. Well done!

The Recorder's Report for Botany 1986

B. M. Newman

The nomenclature and order used in this report are those of the "Flora of the British Isles" by Clapham, Tutin & Warburg, 1962. An alien taxon is indicated by an asterisk (*). The English names are from "English Names of Wild Flowers" second edition 1986, the recommended list of the Botanical Society of the British Isles.

The Recorder thanks members for the many interesting records received which include some not previously recorded by the Society. A selection of these records, nearly all from within a twenty mile radius of Reading, is listed below. In addition, several species of orchid have been seen in bloom this year, mainly in nature reserves. They include Epipactis phyllanthes G. E. Sm. (Green-flowered Helleborine), Epipogium aphyllum Sw. (Ghost Orchid), Neottia nidus-avis (L.) Rich. (Bird's-nest Orchid) and Orchis purpurea Huds. (Lady Orchid).

List of Members' Records for 1986

SELAGINELLACEAE

*Selaginella kraussiana (Kunze) A. Br. Krauss's Clubmoss
Still a persistent weed in glasshouses, Hampstead Norris, Berks., (HJMB).

EQUISETACEAE

Equisetum sylvaticum L. Wood Horsetail
More than 600 plants in a water meadow and surrounding woodland, Silchester Soke, 28.6.86, (WGH).

POLYPODIACEAE

Asplenium trichomanes L. Maidenhair Spleenwort
Two plants on the Roman wall, Silchester, 20.6.86, (WGH).

Asplenium ruta-muraria L. Wall-rue
Many plants on the wall of Ufton churchyard; ten plants on the Roman wall, Silchester, 20.6.186, (WGH).

Thelypteris palustris Schott Marsh Fern
Locally frequent in fen, Greywell, N. Hants, (HJMB)

CUPRESSACEAE

Juniperus communis L. Juniper
Hartslock Reserve, 8.6.86, (AB).

RANUNCULACEAE

Helleborus foetidus L. Stinking Hellebore
More than 30 plants near Streatley Hill, 28.4.86, (WGH).

Helleborus viridis L. Green Hellebore
More than 60 plants in a wood near Hurdle Shaw, 28.4.86, (WGH).

*Consolida ambigua (L.) P. W. Ball & Heywood Larkspur
On a tip at Pingewood, Berks., (HJMB).

Ranunculus sardous Crantz Hairy Buttercup
More than 40 plants in turfed area of gardens for residential complex for the elderly, on Berkshire side of Silchester Road, Pamber Heath, 11.7.86, (WGH).

- Ranunculus lingua L. Greater Spearwort
Hambleton, NHS walk, 24.5.86, (AB).
- Ranunculus hederaceus L. Ivy-leaved Crowfoot
Ashford Hill, 25.6.86, (AB).
- Ranunculus circinatus Sibth. Fern-leaved Water-crowfoot
Brimpton pit, Berks., (HJMB).
- *Adonis annua L. Pheasant's-eye
Stratfieldsaye, 25.5.86; Sonning chalk pit, 16.7.86, (AB).

PAPAVERACEAE

- Papaver dubium L. Long-headed Poppy
Grove Road, Sonning Common, 25.8.86, (HHC).
- Meconopsis cambrica (L.) Vig. Welsh Poppy
Frequent at Boxford chalk pit, Berks., (HJMB).
- Chelidonium majus L. Greater Celandine
Lane N. of Shipnell's Farm, Caversham, (MB); Hambleton, 24.5.86, (AB).

FUMARIACEAE

- Fumaria vaillantii Lois. Few-flowered Fumitory
In arable land, Membury, Berks., (HJMB).

CRUCIFERAE

- *Lepidium ruderales L. Narrow-leaved Pepperwort
On a tip at Pingewood, Berks., (HJMB).
- Iberis amara L. Wild Candytuft
More than 30 plants at Elmore Park near Goring, 14.6.86, (WGH); Shirburn Hill, 20.9.86, (AB).
- *Sisymbrium orientale L. Eastern Rocket
A pavement weed, Wallingford, Berks., (HJMB); by entrance to railway car park, Vastern Road, Reading, 5.8.86, (HHC).
- *Camelina sativa (L.) Crantz Gold-of-Pleasure
On a tip at Pingewood, Berks., (HJMB).

POLYGALACEAE

- Polygala calcarea F. W. Schultz Chalk Milkwort
Hartslock Reserve, 8.6.86, (AB).

HYPERICACEAE

- Hypericum androsaemum L. Tutsan
In a wood near Rotherfield Greys, Oxon., (HJMB).
- Hypericum montanum L. Pale St. John's-wort
Ashford Hill, 25.6.86, (AB).

CARYOPHYLLACEAE

- *Lychnis coronaria (L.) Desv. Rose Campion
On a tip at Pingewood, Berks., (HJMB).
- Dianthus armeria L. Deptford Pink
On disturbed soil at Peppard Common, N. S. Isaacs, (HJMB). This is the first record in our area for many years.

Saponaria officinalis L. Soapwort
By the Enborne at Brimpton, 5.86, (AB).

Myosoton aquaticum (L.) Moench Water Chickweed
Ten plants by Silchester brook, Pamber Forest, 28.6.86, (WGH).

Stellaria palustris Retz. Marsh Stitchwort
Ashford Hill, 25.6.86, (AB).

PORTULACACEAE

Montia fontana L. Blinks
Many plants on Mortimer Common, 10.5.86, (WGH).

AMARANTHACEAE

*Amaranthus retroflexus L. Common Amaranth
On disturbed soil at Whiteknights Park, Reading, (HJMB). A rare casual.

CHENOPODIACEAE

*Chenopodium bonus-henricus L. Good-King-Henry
Wittenham, 11.8.86, (AB).

MALVACEAE

Malva neglecta Wallr. Dwarf Mallow
In Peppard Road by junction of Upper Henley Road, 8.86, (HHC).

OXALIDACEAE

*Oxalis europaea Jord. Upright Yellow-sorrel
A weed at St. Patrick's Hall, Reading University, (HJMB).

BALSAMINACEAE

*Impatiens capensis Meerburgh Orange Balsam
Sulham, (AB).

*Impatiens parviflora DC. Small Balsam
By the Fairmile, 19.7.86, (HHC); near Whitchurch Hill, 17.8.86, (AB).

*Impatiens glandulifera Royle Indian Balsam
By the Enborne at Brimpton, 5.86, (AB).

PAPILIONACEAE

Ononis spinosa L. Spiny Restharrow
Warren Farm, Berkshire Downs, 24.8.86, (AB).

Trifolium medium L. Zigzag Clover
Ashford Hill, 25.6.86; in a meadow at Moor's Gully, Tadley, 7.8.86;
Shirburn Hill, 20.9.86, (AB).

Trifolium arvense L. Hare's-foot Clover
In a meadow at Moor's Gully, Tadley, 7.8.86; Brimpton gravel pits,
8.10.86, (AB).

Lathyrus montana Bernh. Bitter-vetch
Ashford Hill, 25.6.86, (AB).

ROSACEAE

*Fragaria x ananassa Duchesne Garden Strawberry
Well established in a sandy field near the Coppid Beech roundabout,
Wokingham, (HJMB).

Prunus padus L. Bird Cherry
Pincents Lane and Sulham NHS walk, 10.5.86; by the Enborne at Brimpton,
5.86, (AB).

*Amelanchier grandiflora Rehder Juneberry
By the Coppid Beech roundabout, Wokingham, (HJMB).

Sorbus torminalis (L.) Crantz Wild Service-tree
Harefield Copse, Pincents Lane, Reading, NHS walk, 10.5.86, (HJMB).

PLATANACEAE

*Platanus x hybrida Brot. London Plane
Ballast holes, Dreadnought Reach, Reading, (AB).

CRASSULACEAE

Sedum telephium L. Orpine
Burnt Hill, Yattendon, Berks.; Greyhorse Wood, Oxon., (HJMB); Crowsley
Forest, 12.4.86, (AB).

SAXIFRAGACEAE

Saxifraga granulata L. Meadow Saxifrage
In Winterbourne churchyard, Berks., (HJMB); by the Enborne at Brimpton,
3.5.86, (AB).

DROSERACEAE

Drosera rotundifolia L. Round-leaved Sundew
Tadley Common, 4.6.86, 16.7.86, (AB).

ONAGRACEAE

*Oenothera erythrosepala Borbas Large-flowered Evening-primrose
In an old lay-by on Peppard Road, a first appearance at this site, 25.7.86
(HHC).

UMBELLIFERAE

Torilis arvensis (Huds.) Link Spreading Hedge-parsley
In arable land, Membury, Berks., (HJMB).

Apium graveolens L. Wild Celery
By the Enborne at Brimpton, 3.5.86; the ballast holes, Dreadnought Reach,
Reading, (AB).

Berula erecta (Huds.) Coville Lesser Water-parsnip
Canal by the Old Mill, Aldermaston, 18.6.86, (AB).

EUPHORBIACEAE

*Euphorbia cyparissias L. Cypress Spurge
In grassland, Basildon Park, Berks., (HJMB).

POLYGONACEAE

Polygonum bistorta L. Common Bistort
Water meadow, Ashford Hill, 21.6.86, (WGH).

Polygonum lapathifolium L. Pale Persicaria
In lane north of Shipnell's Farm, Caversham, (MB).

Rumex palustris Sm. Marsh Dock
One plant near Reading old tip, J. Akeroyd, (HJMB). Previously recorded at this site in 1964.

ULMACEAE

Ulmus carpinifolia Gleditsch Small-leaved Elm
One tree with many suckers in a valley near Rotherfield Greys, Oxon., (HJMB).

MYRICACEAE

Myrica gale L. Bog-myrtle
Tadley Common, 4.6.86, (AB).

SALICACEAE

Salix repens L. Creeping Willow
Tadley Common, 16.7.86, (AB).

ERICACEAE

*Kalmia polifolia Wangerh.
Duke's Hill Golf Course, E. Berks., (HJMB).

MONOTROPACEAE

Monotropa hypopitys L. Yellow Bird's-nest
Davenport Wood, 10.8.86, (AB).

PRIMULACEAE

Hottonia palustris L. Water-violet
Ashford Hill, 25.6.86, (AB).

OLEACEAE

Fraxinus excelsior var. diversifolia Ait. Ash
A large tree near the church, Wasing Park, Berks., (HJMB).

GENTIANACEAE

Blackstonia perfoliata (L.) Huds. Yellow-wort
Shirburn Hill, 20.9.86, (AB).

Gentianella germanica (Willd.) Börner Chiltern Gentian
Shirburn Hill, 20.9.86, (AB).

Gentianella amarella (L.) Börner Autumn Gentian
Davenport Wood, 10.8.86; Wayfarer's Way, 2.9.86; Shirburn Hill, 20.9.86, (AB).

BORAGINACEAE

Cynoglossum officinale L. Hound's-tongue
Rotherfield Greys, Oxon., (HJMB).

Lithospermum officinale L. Common Groundwell
In woodland border, Greys Park, Oxon., (HJMB).

SOLANACEAE

Atropa belladonna L. Deadly Nightshade
Above Streatley, Berks; Great Wood, Hambleden, Bucks., (HJMB).

*Solanum cornutum Lam.

One plant appeared in a garden in Tilehurst in late summer, C. J. Leeke, (HJMB).

SCROPHULARIACEAE

Verbascum nigrum L.

Dark Mullein

Davenport Wood, 10.8.86, (AB).

Kickxia spuria (L.) Dum.

Round-leaved Fluellen

Woolhampton and Burnt Hill, Yattenden, Berks., (HJMB); Sonning chalk pit, 16.7.86, (AB).

Kickxia elatine (L.) Dum.

Sharp-leaved Fluellen

Hazeley Heath, N. Hants, (HJMB).

*Cymbalaria pallida (Ten.) Wettst.

On stonework, Benham Park, Berks., NHS walk, new to v.c. 22, (HJMB).

*Mimulus moschatus Dougl. ex Lindl.

Musk

On stonework, Benham Park, Berks., NHS walk, (HJMB).

Veronica scutellata L.

Marsh Speedwell

Owlsmoor bog, Berks., (HJMB).

Pedicularis sylvatica L.

Lousewort

Tadley Common, 4.6.86, (AB).

Euphrasia pseudokernerii Pugsl.

Chalk Eyebright

In chalk grass at Watlington Hill, Oxon., NHS walk, (HJMB).

Euphrasia anglica Pugsl.

English Eyebright

In grassy rides, Maidenhead Thicket, Berks., (HJMB).

OROBANCHACEAE

Orobanche elatior Sutton

Knapweed Broomrape

On Knapweed, on a roadside bank below Walbury Camp, Berks., (HJMB).

VERBENACEAE

Verbena officinalis L.

Vervain

Davenport Wood, 10.8.86; Whitchurch Hill, 17.8.86, (AB).

LABIATAE

Mentha x verticillata L.

Whorled Mint

Davenport Wood, 10.8.86, (AB).

Calamintha ascendens Jord.

Common Calamint

Ten plants on the wall of Ufton churchyard, 20.6.86, (WGH).

*Salvia reflexa Hornem.

A bird seed alien in a garden at Eastbury, Berks., Mrs. M. Thomas, (HJMB).

Stachys arvensis (L.) L.

Field Woundwort

Five plants on waste land, Tadley, 7.10.86, (WGH).

Nepeta cataria L.

Cat-mint

Sonning chalk pit, 16.7.86, (AB).

CAMPANULACEAE

Campanula trachelium L.

Nettle-leaved Bellflower

In a lane N. of Shipnell's Farm, Caversham, (MB); Davenport Wood, 10.8.86; Wayfarer's Way, 2.9.86, (AB).

Campanula glomerata L. Clustered Bellflower
Davenport Wood, 10.8.86; Warren Farm, Berkshire Downs, 24.8.86; Shirburn Hill, 20.9.86, (AB).

COMPOSITAE

Bidens cernua L. Nodding Bur-marigold
By the lake, Wellington College, Berks.; Brimpton pit, Berks., (HJMB).

Carlina vulgaris L. Carline Thistle
Hartslock Reserve 8.6.86; Shirburn Hill 20.9.86, (AB).

Cirsium dissectum (L.) Hill Meadow Thistle
Ashford Hill, 25.6.86, (AB).

Onopordum acanthium L. Cotton Thistle
By the roadside, Goring, Oxon., (HJMB).

Centaurea cyanus L. Cornflower
In a sown field, Benham Park, Berks., NHS walk; Pingewood tip, Berks., (HJMB).

Lactuca serriola L. Prickly Lettuce
Sonning chalk pit, 16.7.86, (AB).

ALISMATACEAE

Alisma plantago-aquatica L. Water-plantain
Engleford, NHS walk, 4.6.86, (AB).

HYDROCHARITACEAE

*Elodea canadensis Michx. Canadian Waterweed
Flowering freely at Brimpton pit, Berks., 1.7.86, (HJMB).

POTAMOGETONACEAE

Potamogeton pusillus L. Lesser Pondweed
In old gravel pit, Pingewood, Berks., (HJMB).

Potamogeton obtusifolius Mert. & Koch Blunt-leaved Pondweed
In Wellington College lake, Berks., (HJMB).

Potamogeton trichoides Cham. & Schlecht. Hair-like Pondweed
Brimpton pit, Berks., (HJMB), the first record for the Society of this scarce plant.

LILIACEAE

Narthecium ossifragum (L.) Huds. Bog Asphodel
Tadley Common, 16.7.86, (AB).

Ruscus aculeatus L. Butcher's-broom
In a lane N. of Shipnell's Farm, Caversham, (MB); Whitchurch Hill, 17.8.86, (AB).

Allium ursinum L. Ramsons
By the Enborne at Brimpton, 5.86, (AB).

JUNCACEAE

Luzula sylvatica (Huds.) Gaud. Great Wood-rush
A small patch in Bixmoor Wood, Oxon., (HJMB).

ARACEAE

*Acorus calamus L. Sweet-flag
Wittenham, 11.8.86; ballast holes at Dreadnought Reach, Reading, (AB).

CYPERACEAE

Eriophorum angustifolium Honck. Common Cottongrass
Tadley Common, 16.7.86

Eleocharis acicularis (L.) Roem. & Schult. Needle Spike-rush
At edge of gravel pit near Twyford, Berks., forming a lawn, (HJMB).

Carex muricata L. Prickly Sedge
Frequent in fallow field, Dark Lane, Pangbourne, NHS walk, (HJMB).

GRAMINEAE

*Festuca heterophylla Lam. Various-leaved Fescue
At margin of Rapley lake and in shaded lane near Bere Court, Berks., (HJMB).

Festuca nigrescens Lam. Chewings Fescue
On gravel, Brimpton pit, Berks. Probably native, an overlooked species,
(HJMB).

Catapodium rigidum (L.) C. E. Hubbard Fern-grass
Sonning chalk pit, 16.7.86, (AB).

*Secale cereale L. Rye
Ashford Hill, 25.6.86, (AB).

*Hordeum jubatum L. Foxtail Barley
In a sown field, Benham Park, Berks., NHS walk, (HJMB).

Hordelymus europaeus (L.) Harz Wood Barley
Bixmoor Wood, Oxon.; Pe ley Wood, Bucks., (HJMB).

Apera spica-venti (L.) Beauv. Loose Silky-bent
On a tip, Pingewood, Berks., (HJMB).

Polygogon monspeliensis (L.) Desf. Annual Beard-grass
On a tip, Pingewood, Berks., (HJMB).

Alopecurus x hybridus Wimm. (= A. geniculatus x pratensis)
On muddy edge of gravel pit, Pingewood, Berks., (HJMB).

Alopecurus aequalis Sobol. Orange Foxtail
On muddy edge of gravel pit, Pingewood, Berks., (HJMB).

Contributors:-

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The Recorder's Report for Entomology 1986

B.R. Baker

The order and nomenclature used in this Report are those given in Kloet and Hincks, A Check List of British Insects, Part 1: Small Orders and Hemiptera, 1964; Part 2: Lepidoptera, 1972; Part 3: Coleoptera, 1977; Part 4: Hymenoptera, 1978; and Part 5: Diptera, 1975.

ODONATA

Dragonflies

Agrion splendens (Harris)
Brimpton Pit, 19.9.86 (HJMB)

Aeshna cyanea (Lull.)
Glebe Road, Reading, 19.7.86 (HJMB)

PSOCOPTERA

Psocids, Booklice

Euclismia quadrimaculata (Latr.)
82, Kennylands Road, Sonning Common, 25.7.86 to 19.8.86. Swarming on external bedroom window sill, disappearing after heavy rain. A few reappeared the following day and lingered on to the beginning of September. Similar observations were made in 1984. This species is supposed to be uncommon and to frequent damp coastal rocks (HHC).

HEMIPTERA

Plant-bugs, Water-bugs, Leaf-hoppers, Aphids, Scale-insects

Podops inuncta (Fabr.)
Baynes Nature Reserve, 27.5.86 (HHC).

Blepharidopterus angulatus (Fallen)
Baynes Nature Reserve, 24.9.86. Supposedly common, but last Berkshire records were at Tubney Wood and Cothill about 1920 (HHC).

Trigonotylus ruficornis (Geoffroy in Fourcroy)
Kennylands Paddock, Sonning Common, 12.8.86. Supposedly common, but last Berkshire record was from Tubney Wood about 1920 (HHC).

Ledra aurita (L.)
Burghclere, 3.10.86. Single specimen in mercury vapour light-trap (GGM-F).

Lacropsis scotti Edwards
Baynes Nature Reserve, 24.9.86 (HHC).

Psammotettix albomarginata Wagner
Kennylands Paddock, Sonning Common, 8.10.86 (HHC).

Javesella discolor (Bohemann)
Baynes Nature Reserve, 27.5.86 (HHC).

LEPIDOPTERA

Butterflies and Moths

Nepialus fusconebulosa (DeG.) Map-winged Swift
The Slade, 13.6.86 (DAY)

Thymelicus lineola (Ochs.) Essex Skipper
Close to Moor Copse Nature Reserve (PS)

Colias croceus (Geoffr.) Clouded Yellow
1986 appears not to have been regarded as a good year for this attractive immigrant butterfly even in the more usually favoured coastal localities.

Therefore a series of observations made by Mr.C.E. Wilson on a large lucerne field at Brimpton are of particular interest. Butterflies were seen over the field on the following dates:- 31.8 (2), 7.9 (4), 20.9 (4), 21.9 (5), 26.9 (3), 27.9 (1). Dates by other observers were: 19.9 (HJMB), 7.10 (2) (AB), 8.10 (2) (PS).

Gonepteryx rhamni (L.)

Brimstone

The very late spring delayed the appearance of this attractive butterfly. Some first dates are: College Wood, 20.3.86 (HJMB); 25, Matlock Road, Caversham, 15.4.86 (HGB); Burghfield Common, 10.5.86 (DAY).

Anthocharis cardamines (L.)

Orange Tip

This species was similarly delayed in its appearance:- Boxford, 7.6.86, Wokingham, 14.6.86, Penley Wood, 29.6.86 (HJMB); Mortimer West End, 8.6.86 (BRB, NMH).

Quercusia quercus (L.)

Purple Hairstreak

The Slade, 7.9.86 (BRB, PS).

Plebejus argus (L.)

Silver-studded Blue

Silchester Common, fair numbers seen in July (DAY); Silchester Common, 15.8.86 (HJMB).

Celastrina argiolus (L.)

Holly Blue

25, Matlock Road, Caversham, 15.6.86, 2.9.86 (HGB); Glebe Road, Reading, 26.4.86 (HJMB).

Apatura iris (L.)

Purple Emperor

Burghclere, 9.8.86, a male flying high amongst oaks and a very large female observed at close quarters later the same day (GGE-F).

Vanessa atalanta (L.)

Red Admiral

Penley Wood, 29.6.86, Yattendon, 5.7.86, Bradfield, 14.9.86 (HJMB); Fence Wood, 14.6.86, Unhill Wood, 21.6.86, Moor Copse Nature Reserve, 23.8.86, Vastern Road, Reading, 27.8.86, 25, Matlock Road, Caversham, 3, 7.9.86, 6.10.86 (BRB).

Cynthia cardui (L.)

Painted Lady

Moor Copse Nature Reserve, 23.8.86 (BRB).

Melanargia galathea (L.)

Marbled White

Locally abundant: Streatley, 11.7.86, Rotherfield Greys, 27.7.86, Watlington Hill, 2.8.86 (HJMB); 25, Matlock Road, Caversham, 23.7.86 (HGB).

Pararge aegeria (L.)

Speckled Wood

Great Park Wood, 7.6.86, Twyford, 26.9.86, Reading, 3.10.86 (HJMB).

Lasiommata megera (L.)

The Wall

This butterfly could well occur in every 10 km. square of the B.B.O.N.T. region but is rarely seen in any numbers and in some seasons is quite scarce (Steel, 1985). HJMB and DAY have both commented on the complete absence of this species during their recordings for our Reading Naturalist, It would therefore be worthwhile for all members with an interest in butterflies to keep an eye open for wall browns in 1987.

Trichiura crataegi (L.)

Pale Eggar

Devil's Highway, 8.6.86, larvae on Prunus spinosa (BRB, NMH); The Slade, 20.9.86 (DAY).

Tethea or (D. & S.)

Poplar Lutestring

California Country Park, 28.6.86 (NMH); Woolhampton, 2.7.86 (DAY, PS).

- Cyclophora annulata (Schulze) The Mocha
Gussetts Wood, 25.7.86 (DAY, PS).
- Catarhoe cuculata (Hufn.) Royal Mantle
Unhill Wood, 26.6.86 (BRB); Burghfield Common, 20.7.86 (DAY).
- Lampropteryx otregiata (Metc.) Devon Carpet
Burghclere, 19,24.5.86, 8,17.8.86 (GGE-F).
- Mesoleuca albicillata (L.) Beautiful Carpet
The Slade, 12.7.86 (NMH); Burghfield Common, 20,25.7.86; Woolhampton,
2,14.7.86; The Slade, 12.7.86; Gussetts Wood, 25.7.86 (DAY).
- Eulithis prunata (L.) The Phoenix
California Country Park, 28.6.86 (NMH).
- Chloroclysta siterata (Hufn.) Red-Green Carpet
Burghclere, 8, 14, 15, 17, 31.10.86, 5.11.86 (GGE-F)
- Perizoma didymata (L.) Twin-spot Carpet
Burghclere, 15.7.86 (GGE-F).
- Eupithecia plumbeolata (Haw.) Lead-coloured Pug
The Slade, 13.6.86 (PS); The Slade, 12.7.86 (NMH, DAY, PS).
- Chloroclystis debiliata (Hb.) Bilberry Pug
The Slade, 12.7.86 (NMH, DAY, PS).
- Discoloxia blomeri (Curt.) Blomer's Rivulet
Gussetts Wood, 25.7.86 (DAY, PS).
- Hydrelia flammeolaria (Hufn.) Small Yellow Wave
Burghclere, 27.10.86 (GGE-F). A very odd occurrence of a moth, normally
single brooded, and appearing in June and July.
- Cepphis advenaria (Hb.) Little Thorn
The Slade, 13.6.86 (BRB, DAY, PS).
- Angerona prunaria (L.) Orange Moth
Burghclere, 12.7.86 (GGE-F).
- Cleora cinctaria (D. & S.) Ringed Carpet
Burghfield Common, 19.5.86 (DAY).
- Gnophos obscuratus (D. & S.) The Annulet
Burghfield Common, 17.8.86 (DAY).
- Macroglossum stellatarum (L.) Humming Bird Hawk Moth
Compton, 9.6.86, (reported anon. to Reading Museum); Burghfield Common,
26, 28.6.86, 6.7.86 (DAY).
- Ptilodontella cucullina (D. & S.) Maple Prominent
Kingstanding Hill, 16.6.86; Gussetts Wood, 25.7.86 (DAY).
- Euproctis chrysorrhoea (L.) Brown Tail
Mortimer West End, 8.6.86, 3 larvae on Crataegus (NMH, BRB). This is
the second County record, the first being that reported by Basil Parsons
in last year's Reading Naturalist of a larval nest at Cutbush Lane, Earley.
- Eilema sorocula (Hufn.) Orange Footman
Burghclere, 26.6.86 (GGE-F); Nuney Green, 26.6.86 (DAY, PS).

- Meganola strigula (D. & S.) Small Black Arches
The Slade, 12.7.86 (NMH, DAY, PS).
- Xestia ditrapezium (D. & S.) Triple Spotted Clay
The Slade, 12.7.86 (NMH, DAY, PS); Gussetts Wood, 25.7.86, 1.8.86 (DAY, PS)
- Lithophane semibrunnea (Haw.) Tawny Pinion
Burghclere, 2.12.86 (GGE-F).
- L. socia (Hufn.) Pale Pinion
Burghclere, 22.4.86, 2.5.86, 31.10.86, 6, 20.11.86 (GGE-F)
- L. ornithopus (Hufn.) Grey Shoulder-knot
Burghclere, 17, 26.10.86, 5, 6, 12, 24.11.86 (GGE-F).
- Craniophora ligustri (D. & S.) Coronet Moth
Gussetts Wood, 25.7.86, 1.8.86 (DAY, PS); Burghclere, 29.6.86,
2, 11, 19, 31.7.86 (GGE-F).
- Chilodes maritimus (H+S.) Silky Wainscot
California Country Park, 28.6.86 (NMH); Woolhampton, 4, 15, 18.7.86 (DAY).
- Elaphria venustula (Hb.) Rosy Marbled
The Slade, 12.7.86 (NMH); The Slade, 2.8.86 (DAY).
- Parascotia fuliginaria (L.) Waved Black
Moor Copse Nature Reserve, 16.8.86 (BRB); Woolhampton, 15.18.7.86;
Burghfield Common, 15, 25.7.86, 3.8.86 (DAY).
- Hypena crassalis (Fabr.) Beautiful Snout
The Slade, 13.6.86 (DAY); The Slade, 12.7.86 (NMH, DAY, PS).

COLEOPTERA

Beetles

As in 1985, another very detailed list of beetles recorded in the Reading area has been submitted by Mr. T.D. Harrison. The Biological Records Centre at Reading Museum has the complete list but HHC has kindly selected the following as being of interest for the Reading Naturalist:

Dyschirius aeneus (Dejean)
Near Amner's Farm, 20.8.85, in clay soil at margin of water-filled gravel pit (TDH).

Harpalus puncticeps (Stephens)
Near Amner's Farm, 17.9.85, in soil on a sandy mound at edge of water-filled gravel pit (TDH).

Noterus clavicornis (Degeer)
Near Pingewood, 17.12.85, in water-filled gravel pit (TDH).

Cercyon tristis (Illiger)
Near Streatley, 13.10.85, resting on vegetation on bank of ditch in water meadow (TDH).

Laccobius minutus (L.)
Near Pingewood, 17.12.85, in water-filled gravel pit (TDH).

Lucanus cervus (L.)
The Butts, Reading, 14.6.86 (HJMB).

Dorcus parallelipedus (L.)
Glebe Road, Reading, 27.7.86 (HJMB).

Antherophagus pallens (L.)

Leighton Park, 24.6.86, inside corolla of Aquilegia sp. in garden (TDH).

Diplocoelus fagi Guerin-Meneville

Kingstone Down, 29.9.86, under bark of beech, on chalk downs (TDH).

Phalacrus fimetarius (Fabr.)

Blewbury Down, 29.12.85, hibernating under bark of fence post, in arable farmland (TDH).

Cerylon ferrugineum Stephens

Whiteknights, 11.1.86, under bark of a tree stump in deciduous wood (TDH).

Aridius bifasciatus (Reitter)

Leighton Park, 7.7.86, by sweeping a grass lawn (TDH).

Cicones variegata (Hellwig)

Ridgeway Path near Nuffield, 21.2.86, under bark of dead beech tree in woodland (TDH).

Lissodema quadripustulata (Marsham)

Leighton Park, 14.7.86, resting on washing hung out to dry in garden (TDH).

Tomoxia biguttata (Gyllenhal)

Whiteknights, 6.7.86, resting on umbel of hogweed, in woodland clearing (TDH).

Donacia marginata Hoppe

Valley Gardens, near Virginia Water, 28.6.86, resting on Iris pseudacorus on bank of lake (TDH).

Longitarsus kutscherae (Rye)

Leighton Park, 30.8.85, by sweeping grass lawn in garden (TDH).

L. rubiginosus (Foudras)

Leighton Park, 27.8.84, on Convolvulus arvensis (TDH).

L. rutilus Illiger

Child Beale, near Lower Basildon, 30.6.85, on Scrophularia sp. Identified by Dr. M.L. Cox, B.Mus.Nat.Hist. (TDH).

Polydrusus undatus (Fabr.)

Baynes Nature Reserve, 4.6.86, by beating Quercus sp. in woodland (TDH).

Anoplus roboris Suffrian

Baynes Nature Reserve, 11.5.86, on Alnus sp. in woodland (TDH).

Acalles roboris Curt.

Baynes Nature Reserve, 4.6.86, on Corylus in woodland (TDH).

Dorytomus rufatus (Bedel)

Baynes Nature Reserve, 4.6.86, by beating Salix sp. in woodland (TDH).

HYMENOPTERA

Sawflies, Ichneumons, Bees and Wasps

Synergus nervosus Hartig

Kingwood Common, bred from gall of Cynips quercusfolii L. collected 24.12.85, emerged 4.2.86

Synergus pallicornis Hartig

As the preceding species, emerged 9.2.86 and 20.2.86

Aphanistes ruficornis (Gravenhorst)

Pamber Forest, 15.7.86 (BRB)

Andrena nigriceps Kirby
Kennylands Paddock, Sonning Common, 15.8.86 (HHC).

DIPTERA True Flies

Threticus lucifugus Walker
Baynes Nature Reserve, 24.9.86 (HHC).

Psychoda albipennis Zett.
25, Matlock Road, 7.4.86 (BRB).

Endochironomus albipennis (Meigen)
Abbey Rugby Football Club, Chalkhouse Green, 11.8.86 (HHC).

Microtendipes diffinis Edwards
Baynes Nature Reserve, 22.7.86 (HHC).

Neoempheria pictipennis Haliday
Badger's Bridge, Windsor Forest, 27.6.71 (HHC).

Neoempheria striata (Meigen)
Cothill, 13.7.85 (HHC).

Leptomorphus walkeri Curtis
Windsor Great Park, pupa collected 19.6.79, emerged 20 to 26.6.79 (HHC).

Trichosia caudata(Walker)
Baynes Nature Reserve, 16.6.84 (HHC).

Corynoptera forcipata (Winnertz)
Burghfield Bridge, 24.10.86 (HHC).

Bradysia fimbricauda Tuomikoski
Bird Wood, Sonning Common, 7.5.86 (HHC).

B.subtilis (Lengersdorf)
Bred from moss in Reading Museum livestock display, 14.2.69 (HHC).

Acrocera globulus Panzer in Meigen
Windsor Great Park, 9.8.86 (HHC).

Rhaphium riparium (Meigen)
Baynes Nature Reserve, 27.5.86 (HHC).

Triphleba intermedia Malloch
Clayfield Copse, Emmer Green, 26.5.81 (HHC).

Orellia ruficauda (Fabr.)
Baynes Nature Reserve, 22.7.86 (HHC).

Copromyza sordida Zett.
Kennylands Paddock, Sonning Common, 8.10.86 (HHC).

Ophiomyia pinguis (Fallen)
Kennylands, Sonning Common, 20.6.86 (HHC).

Agromyza hendeli Griffiths
Baynes Nature Reserve, 27.5.86 (HHC).

Thaumatomyia notata (Meigen)
Reading, 30.9.86. By no means new to us, this tiny black and yellow species,

which is well known for entering houses for hibernation, is mentioned here because of the extraordinary numbers involved in this instance, estimated to be of the order of 3 million. Normally the species overwinters as a pupa, but unusual weather conditions may bring on an autumn emergence and the resulting adults attempt to hibernate, usually failing to survive the winter (HHC).

Bellardia biseta Kramer

Kennylands Paddock, Sonning Common, 8.8.86 (HHC).

Chirosia betuleti Ringdahl

Baynes Nature Reserve, 28.5.85 (HHC).

C.histricina Rondani

Baynes Nature Reserve, 28.5.85, 29.7.85 (HHC).

Acrostilpna latipennis (Zett.)

Baynes Nature Reserve, 27.5.86 (HHC).

Chelisia monilis (Meigen)

Baynes Nature Reserve, 27.8.86 (HHC).

Nupedia debilis (Stein)

82, Kennylands Road, Sonning Common, 1.5.86 (HHC).

Pegoplata palposa (Stein)

Baynes Nature Reserve, 23.6.86 (HHC).

Pegomya ulmaria Rondani

Rose Hill Pond, Emmer Green, 13.6.86 (HHC).

Fannia metallipennis (Zett.)

Baynes Nature Reserve, 23.6.86 (HHC).

Phaonia perdita (Meigen)

Bishopsland Farm Lane, 5.6.86 (HHC).

Mydaea nebulosa (Stein)

Baynes Nature Reserve, 22.7.86 (HHC).

Lipoptena cervi (L.)

Baynes Nature Reserve, 24.9.86 (HHC); Aldermaston Park, 8.10.86 (GGE-F). All were winged forms. Following dispersal, these flies settle on a host (deer) and lose their wings. The flight period corresponds with the rutting season of deer, when the hosts congregate (often at traditionally favoured localities) and are easily located by the ectoparasite (HHC).

SIPHONAPTERA

Fleas

Nosopsyllus fasciatus (Bosc)

Brought in to the Museum with bones from a rat-infested cellar, rats being host to this species (HHC).

The Society's Entomological Evening, 28th June, 1986

After an absence of 3 years we returned to California Country Park and, as so often in recent years when the Society's Barbecue and mothing night have been combined, we were given marvellous weather for both events. The total of 122 species of macro. moths is the highest we have recorded at these annual events, the previous highest being at Wellington Country Park (116) in 1984. Species of particular interest are mentioned in the foregoing Report and details of the microlepidoptera noted can be made

available from the Museum's County Index. Our thanks are again due to David Young and Norman Hall for supplying various items of field equipment and subsequent lists of species, in which latter activity they were ably helped by Sheila Ward. The Society acknowledges the valued permission of Wokingham District Council to visit and work at this interesting locality.

Contributors

The Recorder would like to thank the following members for submitting records:-

Mrs. H.G. Baker (HGB), Dr. H.J.M. Bowen (HJMB), Dr.A. Brickstock (AB), H.H. Carter (HHC), Lt.Col. G.G. Eastwick-Field (GGE-F), N.M. Hall (NMH), T.D. Harrison (TDH), P.Silver (PS), Mrs.S. Ward (SY), D.A. Young (DAY). Additionally our thanks are due to the Director of Reading Museum and Art Gallery, Mr.C.A. Sizer, for allowing us to incorporate any relevant records from the Museum's collections.

Ref: The Butterflies of Berkshire, Buckinghamshire and Oxfordshire, Caroline and David Steel, Pisces Publications, Oxford 1985.

DIPLOPODA Millipedes

Polymicrodon polydesmoides (Leach)
Hibernating in crevice at Playhatch chalkpit, 23.11.85 with Eristalis tenax (L.) (HHC).

ARACHNIDA Spiders

Clubiona brevipes Blackwall
Rose Hill Lane, Emmer Green, 29.7.86 (HHC).

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The Recorder's Report for Funqi 1986.
Alan Brickstock.

The season got off to a splendid start at the end of August, when torrential rain brought an amazing early flush of fungi, 68 species being recorded at Sulham, including the rare Amanita echinocephala, with a strikingly warted creamy-white cap. However, this promise was short lived, and the long ensuing dry spell resulted in a very poor Autumn. Very few species occurred in any great numbers, and the woods in the prime foraging period of September and October were more devoid of fungi than I can remember. Despite this, we had some enjoyable forays, with everyone keen to find anything that was around.

The Society foray at Bix on 4/10 (Judith Hack) produced 41 species, including two uncommon Hygrocybe, and, once again, the rare Amanita solitaria. On the 'double header' of 19/10, we found 49 species at Sole Common, where we could have done with more time, and 41 species at Snelsmore Common, a combined total for the day of 72 species. Considering the sparsity of specimens, this was a very successful day.

The Mycological Society foray at Virginia Water, with a large number of searchers, produced 128 species (my count; there were probably more), including the interesting little Calocera pallido-spathulata. This fungus was quite rare in Britain only a few years ago, but is now spreading rapidly: I had found it at AWRE the previous week. Another interesting find, new to me, was Pistillaria quisquiliaris, a tiny white club-shaped fungus growing gregariously on dead bracken stems.

At the BBONT foray at Bucklebury Slade on 2/11, attended by a number of our members, 56 species were recorded.

The members of all these forays are to be congratulated on the diligence of their searching, which invariably produced far more species than seemed possible.

The total number of species for the year was 280. Without the Mycological Society outing, the total was only 256, 38 less than the comparable figure for last year's poor total.

The following are a selection of the more interesting records; names of Agarics are as given by Moser, others mainly from Phillips:

Agaricus placomyces

Sulham, 29.11.86 (B).

Similar to the edible A. silvaticus, but can cause coma.

Bruises bright yellow in stipe base.

Amanita echinocephala

Sulham, 23.8.86 (B&D).

A rare Amanita with a strikingly warted white cap.

Asterophora parasitica

Wellington Country Park, 25.10.86 (J&PA).

Growing on Lactarius turpis.

Aureoboletus cramesinus

Sulham, 11.10.86 (B).

A small Boletus with peach-coloured cap and bright yellow pores.

Boletus pruinatus

Woodcote-Exlade Street, 31.8.86 (B); Whiteknights, 21.9.86 (B);

Sole Common, 19.10.86 (NH); Snelsmore Common, 19.10.86 (NH).

Collybia confluens

Sulham, 23.8.86 (B&D).

Cortinarius auroturbinatus

Sulham, 17.9.86 (B); Sulham, 29.9.86 (B).

Cortinarius betuletorum

AWRE, 9/10.86 (B).

Cortinarius paleiferus

Virginia Water, 18.10.86 (MS).

Galerina paludosa

Ufton Nervet, 12.10.86 (B).

Hebeloma radicosum

Nettlebed, 14.10.86 (J&PA).

Hygrocybe konradii

Warburg Reserve Bix, 4.10.86 (NH).

Hygrocybe reali

Warburg Reserve Bix, 4.10.86 (NH).

Hygrocybe russocoriacea

AWRE, 9/10.86 (B).

Very strong smell of pencil sharpenings or sandalwood.

Lactarius vietus

Ufton Nervet, 28.9.86 (B); Ufton Nervet, 12.10.86 (B);
Virginia Water, 18.10.86 (MS); Sole Common, 19.10.86 (NH);
Snelsmore Common, 19.10.86 (NH); AWRE, 9/10.86 (B).

Found more commonly than usual this season.

Leccinum duriusculum

Virginia Water, 18.10.86 (MS); Whiteknights, 8/9.86 (PA).
Similar to L. scabrum, but growing under aspens.

Nolanea staurospora

Virginia Water, 18.10.86 (MS).

Paxillus atrotomentosus

Ufton Nervet, 28.9.86 (B); Ufton Nervet, 12.10.86 (B).
Base of stem covered with brown down. Grows tufted on Conifer stumps.

Pholiota aurivella

Whiteknights, 21.9.86 (B).

Rhodotus palmatus

Whiteknights, 21.9.86 (B).
Superb masses of this beautiful apricot coloured fungus. Once rare, but increased rapidly with the supply of dead elms after Dutch Elm disease.

Russula claroflava

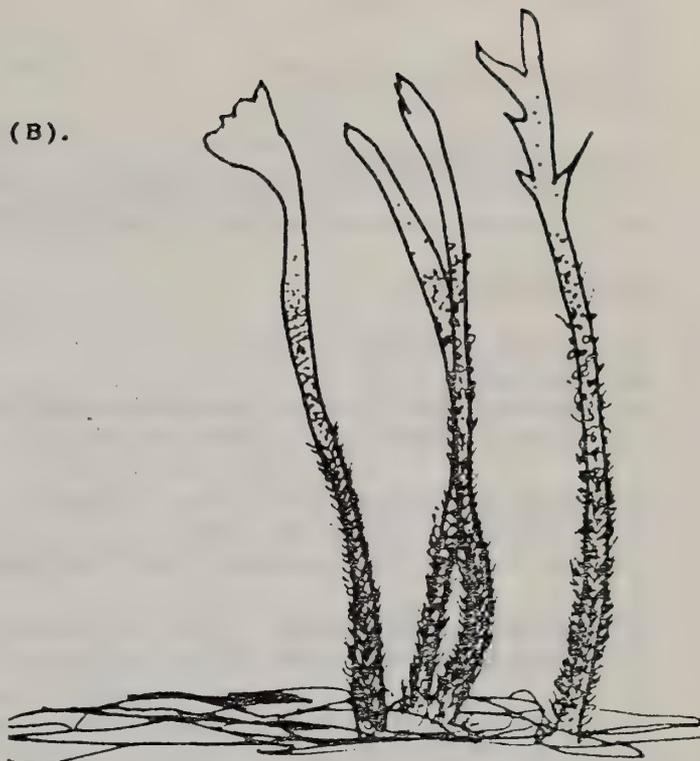
'Yellow swamp Russula'

Virginia Water, 18.10.86 (MS); Snelsmore Common, 19.10.86 (NH);
AWRE, 9/10.86 (B).

Found more often than usual this year.

Russula cyanoxantha var. peltereaui

Ufton Nervet, 12.10.86 (B).
Several beautiful deep green specimens were found. Olive-green iron alum reaction distinguishes it from other green Russula species.



2 cm

AMR J

Russula lutea
Sulham, 23.8.86 (B&D).

Strobilomyces floccopus 'The Old Man of the Woods'.
Satwell, 14.10.86 (J&PA).

Volvariella speciosa
Nuffield, 9.86 (RH); Virginia Water, 18.10.86 (MS).
An uncommon species, having a large volva but no ring.

APHYLLOPHORALES

Ganoderma lucidum
Whiteknights, (JA).
A large bracket fungus, becoming purplish-brown to black, with a glossy 'varnished' look.

Hericium erinaceus
Virginia Water, 18.10.86 (MS).
One of the most unusually formed and beautiful of fungi.

Hydnellum scrobiculatum
Virginia Water, 18.10.86 (MS).

Leucogyrophana mollusca
Virginia Water, 18.10.86 (MS).
White, becoming yellow. Enveloping conifer twigs and debris.

Pistillaria quisquiliaris
Virginia Water, 18.10.86 (MS).
A tiny white fungus gregarious on dead bracken stems.

GASTEROMYCETALES

Geastrum sessile
Sulham, 23.8.86 (B&D).
G. triplex has long been known here, but this species is a fresh record.

HETEROBASIDIOMYCETES

Calocera pallido-spathulata
AWRE, 15.10.86 (B); Virginia Water, 18.10.86 (MS).
Rare a few years ago, but spreading rapidly.

ASCOMYCETES

Aleuria aurantia 'Orange peel Peziza'.
Whiteknights, 21.9.86 (B); Sole Common, 19.10.86 (NH).
Not uncommon, but unusually numerous here.

Nectria coccinea
Sulham, 1.1.86 (B); Bucklebury Slade, 2.11.86 (BBONT).
Similar to the well known N. cinnabarina, but bright red.

Scutellinia scutellata 'Eyelash fungus'.
Virginia Water, 18.10.86 (MS).

Contributors.

Ivy and Alan Brickstock (B), Mary and Neville Diserens (D), Joyce Andrews (JA), Pat Andrews (PA) and Rosie Harlow (RH).
Society forays are denoted by (NH) or (BBONT).
(MS) denotes the Mycological Society foray at Virginia Water.

The Recorder's Report for Vertebrates, 1986

H.H. Carter

FISH

During the early part of the year, small fish (Dace and Chub) were seen in the Holy Brook where it passes under the new Central Library building but these soon disappeared, not to be seen again.

AMPHIBIANS

Rana temporaria L. Common Frog

Present in the breeding pond at Kidmore End School 9.3.86.
Very small frogs at Crowsley Park, 2.6.86 and Owlsmoor Bog, 8.8.86 (HJMB).
Frog spawn in garden pond, Kennylands, 2.4.86 (Mrs. Wheatley).
Spawn in garden pond, 27.3.86 (BTP). Spencers Wood, 10.4.86.

Bufo bufo (L.) Common Toad

One dead in Woodlands Road, Sonning Common, 22.3.86. One dead in Binfield Heath Lane, 22.4.86. About 200 pairs in the lower pond and 4 pairs in the upper pond opposite the Coach and Horses, Binfield Heath, but no spawn seen, 22.4.86. One dead in Kiln Road, Emmer Green, 24.4.86. One dead in Kennylands Road, Sonning Common, 6.10.86. Two dead in Sonning Common, 12.11.86.

REPTILES

Vipera berus L. Adder

One in Owlsmoor Bog, 8.8.86, trodden on by HJMB without ill effects to either.

MAMMALS

Talpa europaea L. Mole

Molehills on the east bank of the Thames near Abingdon, 5.4.86. Present in Folly Wood, Moor Copse and Great Park Wood (HJMB).

Erinaceus europaeus L. Hedgehog

Present in Benham Park (HJMB). One dead on road near Benson, 9.8.86, and 4 dead on road between Sonning Common and Reading on various dates.

Myotis daubentonii Daubenton's Bat

Aldermaston Mill, 2.2.86, a medium sized bat seen flying in full sunlight about 2 pm. - a sunny day but still very cold in the shadows. Bat was observed continuously flying to and fro over river and often dipping close to the water surface.

Chestnut brown body above and below becoming a paler tone on the underside towards the rear end. Medium sized ears quite noticeable in flight when viewed through x10 binoculars.

27.9.86, a group of 20-30 bats taking insects low over water at Brimpton gravel pit, after dusk. The bats were concentrated in one particular corner of the gravel pit. (GEW)

Vulpes vulpes (L.)

Fox

One in field near Bird in Hand, Sonning Common, 7.1.86, and one dead on road at same locality, 10.6.86, one in Crowsley Forest 12.8.86 (MJC). One calling north of Bishopsland Farm, 13.1.86, one calling near Kennylands 28.1.86, 15.10.86 and 26.11.86. Tracks in Morgan's Wood, 15.2.86. (All these localities are near Sonning Common.) One resident at Cockney Hill, Tilehurst and several at the decoy pond, Aldermaston, in February (AB). Breeding in the Wilderness, Whiteknights, 29.5.86, seen hunting above Streatley (SU 58 50) at 1700 hrs 13.6.86, at Rapley Lakes, 14.6.86, scouring a compost heap at 8 Glebe Road, 0050 hrs, 7.7.86, in wood at Rotherfield Greys (SU 73 82), 22.7.86 (HJMB). One dead at 3 Knowle Close, 28.10.86 (Mrs Coulter).

Meles meles (L.)

Badger

One seen at Low Lane (Ford's Farm), 8.6.86 (WM). One dead Upper Warren Avenue 24.9.86 (PC). Upper Warren Avenue, 5.11.86.

Mustela erminea L.

Stoat

One in hollow stump at Benham Park (SU 44 67), 26.7.86 (HJMB). One dead on M4 bridge at Moor Copse, September (MJC).

Unidentified Deer (from the localities, many of these will be Fallow, Dama dama(L.))

Great Holt Copse (SU 41 64), 4.1.86, Folly Wood (SU 37 65), 25.1.86, Great Wood (Turville, SU 77 89), 29.5.86, Crowsley Park (SU 73 79), 2.6.86, Great Park Wood (SU 34 75), 7.6.86, Rapley Lakes (SU 89 64), 14.6.86, Penley Wood (SU 76 93), 29.6.86 (HJMB).

Dama dama (L.)

Fallow Deer

Two or three males groaning in Crowsley Forest, 11.10.86 - as always, second week in October.

Cervus nippon Temminck

Sika Deer

Enborne Copse (SU 43 65), 4.1.86 (HJMB).

Capreolus capreolus (L.)

Roe Deer

Roe deer with fawn newly born only just capable of standing, Wasing Wood, near Tadley, 12.5.86 (GEW). Male and female, Camp Road, Ufton Nervet, 12.4.86 (BRB).

Muntiacus reevesi Ogilby

Muntjac

One calling near Highlands Wood, Kidmore End, 10.5.86. One in Kennylands Road, Sonning Common, 21.10.86 (EMC). One with antlers in velvet, Aldermaston Court, 29.5.86, (GEW).

Lepus capensis Pallas

Brown Hare

One Hazelmoor Lane (SU 69 79), 10.5.86

Oryctolagus cuniculus (L.)

Rabbit

12 dead on road between Sonning Common and Reading (up to 3 on any one day) on various dates, 22 sightings of live rabbits in the same area

(maximum 8, 1.5.86), tracks in Morgan's Wood 15.2.86. The drastic drop in numbers along Peppard Road is the anticipated effect of the hedge clearance mentioned last year. 10 on grassy bank of landscaped gravel pit, Kirton's Farm, Burghfield, 26.8.86. Folly Wood, Moor Copse, 28.3.86, Crowsley Park, 2.6.86, Great Park Wood, Benham Park, abundant Watlington Hill (SU 70 93), 2.8.86, Owlsmoor Bog (SU 84 62), 8.8.86 (HJMB).

Arvicola amphibius (L.)

Water Vole

Moor Copse, 28.3.86 (HJMB). Burrows on east bank of Thames near Abingdon, 5.4.86.

Apodemus sylvaticus (L.)

Wood Mouse

One dead Rose Hill Lane, 29.7.86, one dead Kennylands, 8.10.86.

Rattus norvegicus Berk.

Brown Rat

One dead on road near the Pack Horse (SU 69 77), 20.9.86, present at Rapley Lakes (HJMB). At bird table, Kennylands, 18.2.86, one dead on M4 bridge at Moor Copse, September (MJC). 3 dead on road between Sonning Common and Reading on various dates.

Sciurus carolinensis Gmelin

Grey Squirrel

Enborne Copse, Folly Wood, Whiteknights, Great Park Wood, Rapley Lake (HJMB). Tracks in Morgan's Wood, 8.3.86, 4 dead on roads between Sonning Common and Reading, various dates. In gardens and at birdtable, Kennylands October and November (EMC and MJC). Yeomanry House, 13.11.86.

Thanks are due to the following contributors:

Alan Brickstock (AB), Brian Baker (BRB), Humphry Bowen (HJMB), Elizabeth Carter (EMC), Mary Carter (MJC), Mrs. Coulter, Paula Cox (PC), Basil T. Parsons (BTP), Mrs. Wheatley, G.E. Wilson (GEW).

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The weather at Reading during 1986

Dr. R.D. Thompson
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1986 will be remembered as a year with very severe "Big Freeze" conditions in February, which turned out to be the third coldest month since our records began in 1921 (after January 1963 and February 1947). Spring was a non-event (just like 1985) with temperatures well below average in March, April and May. April was also very wet and cloudy which prolonged the agony of a long, miserable Winter.

Apart from a very dry and warm June, the summer was most disappointing (for the second year in succession), particularly the cool, wet month of August. The Autumn was dry with an absolute drought recorded in September, but this month was much colder than average with the highest number of ground frosts recorded since before 1960. The early Winter was generally mild and wet, with the first air frost delayed until almost the middle of December.

For the year as a whole, the extreme seasonal weather conditions once again balanced out, especially for precipitation which was very close to the yearly average. However, temperatures were about 0.5°C below normal and sunshine hours were the major deviant being (as in 1985) some 7% below average. The following monthly weather notes are based on the table of Weather Records provided and reveal the detailed weather characteristics over the year:-

January was a mild, windy and very wet month (the wettest of the year), with rainfall about 40% above average. However, despite the unsettled westerly weather, sunshine hours were up by 32% which, coupled with the mildness, provided reasonable Winter weather.

February came as a complete shock to us all, after such a mild and sunny start to the year, with a mean temperature some 6°C below average. Indeed, "Big Freeze" conditions persisted for the entire month due to the control of the continental anticyclone and easterly winds, with 460 hours recorded at or below 0°C. This was the highest total for any February since 1947 (540 hours) and turned out to be the third coldest month on record (including January 1963 as the coldest, with 567 hours). Minimum air temperatures fell to -11.6°C on the 10th (but not as cold as the record low of -14.5°C in January 1982), with -16.5°C recorded on the ground at the same time. With the unrelenting frost, the number of days with snow lying was the highest recorded since 1963. However, after the snow storms at the beginning of the month, conditions were generally dry, with the aggregate precipitation 76% below normal, and an absolute drought (i.e. 15 consecutive days with less than 0.2mm precipitation) was recorded, which ended on the 28th.

March came in "like a lion" and continued the cold dry weather of the previous month. However, by the middle of the month, the continental anticyclone and freezing easterlies had relented and were replaced by mild, wet westerlies. Consequently, March went out "like a lamb" and, for the month as a whole, temperature, rainfall and sunshine totals were very close to normal.

April did not fulfil the promise of Spring and turned out to be a miserable month, with cold, wet and cloudy weather. Mean temperatures were some 2°C below normal, making it the coldest April since before 1958. It was only during the last week that temperatures recovered a little,

with the 16.5°C maximum on the 26th being the warmest day of the year so far (which was quite pathetic when compared with the low 20's C regularly experienced in the Aprils of the early 1950's). Rainfall was 36% above that expected for the month and to complete the dismal atmospheric picture, sunshine was 14% below average.

May was another very disappointing month with its cold, windy and cloudy weather. Even though the temperatures reached 20°C on the 2nd and 19th, they remained below normal for the month and indeed, the highest maximum of 20.3°C on the 2nd was the lowest for any May since 1972. Rainfall was close to the monthly average but sunshine hours were 23% below those expected, with a mere 5 hours per day average. The month was the windiest since before 1961 and combined with the awful April, the depressing conditions cancelled out Spring this year!

June arrived after five months of poor, frustrating weather and provided a much welcomed respite with very dry, warm and sunny weather throughout the entire month. Temperatures were about 1.5°C above average at long last and the highest maximum on the 28th (29.2°C) was the highest June maximum recorded since the summer of 1976. In fact, 14 days recorded maximum temperatures over 20°C and coupled with rainfall some 70%, below normal and sunshine just above average (ie. a pleasant 7 hrs per day), provided ideal summer weather. The Azores anticyclone had arrived at long last and we hoped that it would be with us for the entire season.

July was a reasonable (if only average) month with temperatures and rainfall close to normal. There were twenty-one pleasant days when the maximum temperature exceeded 20°C but the highest maximum recorded (27.9°C on the 15th) was not exceptional. Also, the month was cloudy with sunshine hours some 8% below the monthly average.

August was a disastrous and forgettable month (just like in 1985) when the anticyclone finally disappeared and the cyclonic westerlies prevailed. The resultant cool, wet and overcast conditions once again ruined the hopes and plans of holiday-makers who had remained in the U.K. although, luckily, I had escaped to the sun and warmth of Kenya! Temperatures were about 2°C below average and were particularly low in the second-half of the month, when only three days experienced maximum temperatures above 20°C. For the month as a whole, the highest maximum recorded (22.8°C on the 10th) was the lowest for 30 years. Rainfall was 44 percent above normal and sunshine was an astounding 35% below average, with a pathetic mean duration of only 4 hours per day (which was only about one-third of the maximum possible).

September was a much more settled and sunny month with anticyclonic conditions responsible for very dry weather, with rainfall 45% below average. Indeed, an absolute drought (the second of the year) was recorded on the 30th and the number of rain days was the lowest for almost 30 years. However, this potential "Indian Summer" was ruined by a high frequency of north-northeasterly winds and unseasonably low temperatures (2°C below average). The nights were particularly cold, with 2.1°C recorded in the screen on the 20th, and 12 ground frosts were observed during the month, the highest number since before 1960. In fact, all the mean temperatures were the lowest recorded for any September in the last fifty years.

October continued the dry, sunny and settled weather and extended the absolute drought to 28 days (ie. until the 14th, which recorded a fall of 12mm rain). The return of cyclonic, westerly weather at this time continued the very wet weather to the end of the month so that despite the first-half drought, the rainfall totalled over 25% above normal. Compared with the

previous month, the northeasterly airflow was much reduced and the dominance of south-southwesterly winds was responsible for temperatures some 1°C above average, with a maximum of 21°C (on the 7th) and only 6 ground frosts recorded (ie. half the September total). Pleasant "Indian Summer" weather characterised the first half of the month which, along with June, represented the best weather experienced over the year.

November was a distinctive cyclonic, westerly month (ie. mild and wet) with temperatures about 2°C above average and even though 13 ground frosts were recorded, the month was free of air frost. These mild conditions delayed the onset of Winter but were associated with rain-bearing weather systems since rainfall was 21% above the monthly average.

December maintained these 'so-called' zonal conditions where westerly winds and depressions controlled the weather and postponed the appearance of cold Continental easterlies. The month was consequently unsettled, mild, wet and windy with temperatures again above normal (1°C higher) and the mean maximum for the month the highest for over 12 years. This meant that the first air frost of the winter (and indeed since April) was delayed until the 10th and only five more moderate freezes (lowest minimum -1.7°C) were recorded over the remaining three weeks. As a result, outdoor plants (like roses and chrysanthemums) continued in full bloom for the entire month. Rainfall was close to average (despite 9 consecutive rain days) and sunshine was about 10% above normal, the highest since 1980. After two months of such mild Winter weather and considerable atmospheric complacency, we were not prepared for the "Big Freeze" shock of the middle of January 1987, when the continental anticyclone returned with a vengeance - but more about this next year!

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WEATHER RECORDS: 1986

STATION: READING UNIVERSITY (WHITEKNIGHTS)

		Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Mean Daily Temperatures °C	Max.	6.9	1.3	9.5	10.2	15.3	20.7	20.7	18.9	16.4	15.5	11.6	9.4	13.0
	Min.	1.0	-3.4	1.9	2.7	7.3	10.6	12.4	10.8	7.1	7.8	4.7	3.2	5.5
	Mean	4.0	-1.1	5.7	6.5	11.3	15.7	16.6	14.9	11.8	11.7	8.2	6.3	9.3
	Range	5.9	4.7	7.6	7.5	8.0	10.1	8.3	8.1	9.3	7.7	6.9	6.2	7.5
Extreme Temperatures °C	Extreme Max. Date	11.8 10th	5.9 13th	13.6 15th	16.5 26th	20.3 2nd	29.2 28th	27.9 15th	22.8 10th	20.1 2nd	21.1 7th	15.4 10th	14.0 4th	29.2 28/6
	Extreme Min. Date	-6.4 26th	-11.6 10th	-5.5 3rd	-1.1 11th	1.8 16th	4.7 12th	7.4 9th	5.7 29th	2.1 20th	1.0 17th	0.9 12th	-1.7 12th	-11.6 10/2
	Extreme Grass Min. Date	-12.0 26th	-16.5 10th	-10.2 3rd	-5.5 2nd	-3.2 16th	-1.6 12th	2.5 9/18th	1.0 20th	-3.1 20th	-4.3 17th	-2.7 5/4/12	-6.5 15th	-16.5 10/2
	Days with air frost	8	24	6	4	0	0	0	0	0	0	0	6	48
Days with ground frost	21	25	19	15	6	1	0	0	0	12	6	13	20	138
Hours at or below 0.0°C	114.5	460	57.5	7.0	0	0	0	0	0	0	0	0	36.5	675.5
Sunshine Hours	Sum	70.6	62.7	113.8	129.2	155.5	204.6	190.2	142.2	145.8	110.0	75.9	57.7	1458
	% of possible	26.8	22.3	30.9	31.6	32.4	41.5	38.3	31.6	38.4	33.1	28.2	23.1	32.6
	Daily Mean	2.3	2.2	3.7	4.3	5.0	6.8	6.4	4.6	4.9	3.6	2.5	1.9	4.0
Precipitation	Amount in mm	95.8	10.8	46.9	52.9	50.8	17.0	47.6	84.7	31.4	61.0	71.5	69.7	640.1
	Rain Days	22	5	17	18	18	6	12	15	3	11	18	19	164
Maximum rain in one day "	Date	19.8 2nd	5.2 5th	8.0 18th	8.0 19th	12.4 4th	7.3 10th	28.0 4th	27.5 25th	22.4 13th	17.9 21st	10.8 14th	10.9 31st	28.0 4/7
Longest run of consecutive rain days		9	2	14	9	6	2	4	4	1	3	5	9	14 March
Longest run of consecutive dry days		2	21	6	5	4	10	5	6	15	13	2	3	21 Februar
Snow or sleet days		3	8	2	3	0	0	0	0	0	0	0	1	17
Days with snow lying		1	15	2	0	0	0	0	0	0	0	0	0	18
Visibility	Days with fog at 0900 GMT	0	0	4	0	0	0	0	0	1	3	3	0	11
Thunderstorm Activity	Days of thunder	0	0	0	1	1	0	1	0	0	0	0	0	3
	Days of hail	0	0	0	1	0	0	1	0	0	0	0	0	2
Barometric Pressure mb	Mean Highest Date	1008 1030 29th	1017 1034 11th	1012 1027 21st	1011 1030 11th	1015 1029 30th	1018 1031 13th	1018 1029 18th	1015 1028 31st	1024 1039 19th	1017 1032 16th	1017 1037 28th	1016 1035 24th	1016 1039 19/9
	Lowest Date	978 2nd	1002 17th	973 24th	987 15th	1004 5th	1009 10th	1007 6th	985 26th	1009 14th	984 20th	992 23rd	1000 13th	973 24/3

